

Internationalisation through digital platforms: a systematic review and future research agenda

Chanjuan Gong
Durham University Business School
Durham, the UK
Email: chanjuan.gong@durham.ac.uk

Xinming He
Durham University Business School
Durham, the UK
Email: xinming.he@durham.ac.uk

Jorge Lengler
Durham University Business School
Durham, the UK
Email: jorge.lengler@durham.ac.uk

Acknowledgements

The authors express their sincere gratitude to the handling Guest Editor, Timo Mandler, other editors and both anonymous reviewers for their critical and important comments on the paper.

Special thanks to Miss Tianyu Liu and Miss Jingyi Yang for their support in coding and sample screening process, Professor Ajai Gaur, Professor Stewart Miller, and other audience of MIB Seminar and Global Studies Seminar series in Durham University Business School for their valuable feedback.

This work was supported by a China Scholarship Council-Durham University Joint Scholarship.

Note: This article has been accepted by the journal of *International Marketing Review* for publication (DOI: 10.1108/IMR-08-2023-0213) on 21st May 2024.

Internationalisation through digital platforms: a systematic review and future research agenda

Abstract

Purpose: This paper systematically reviews and scrutinises the current development of studies concerning digital platform use in firms' internationalisation. It also provides a research agenda for future work. Despite more than two decades of research, the study of how traditional firms enter foreign markets using digital platforms remains in its infancy. This paper contributes insights into the academic and managerial relevance of this field.

Design/methodology/approach: A systematic review of the literature based on content analysis was undertaken, drawing from peer-reviewed journal articles in international business, international marketing, information systems, and electronic commerce. The articles were published between 1999 and 2023, and the review employed a vote-counting method.

Findings: This analysis of 61 papers indicates that research on digital platform use in firms' internationalisation is growing rapidly. However, the field itself is fragmented, and the research findings are inconsistent. This dynamic area reflects a growing trend, is dominated by several theories, relies primarily on survey data, and frequently uses China as a research context.

Originality/value: In acknowledging the vibrancy and managerial importance of this field, the authors offer a comprehensive overview of the existing studies to serve as a repository of knowledge on digital platform use in internationalisation for both

academics and practitioners. Based on the aforementioned analysis, this study develops a reconciling framework to address current research gaps and identify future study directions.

Keywords: Digital platforms, E-commerce, Internationalisation, Systematic literature review, Content analysis

Paper Type: Literature review

1. Introduction

Digital technologies have significantly impacted the global economy and international business (IB) (Cusumano *et al.*, 2019; Evans and Schmalensee, 2016). One approach for firms to go international is through digital platforms, which ‘have a modular architecture and provide an interface that facilitates multilateral transactions and exchanges among users and providers of complementary products and services’, commonly referred to as ‘complementors’ (Li *et al.*, 2019, p. 1448). In the realm of business, digital platforms are typically defined in most studies as multi-sided or two-sided markets that mediate transactions between end customers and independent sellers and service providers (Rochet and Tirole, 2006).

International expansion is costly and risky for firms, in part because of barriers presented by cross-national distances (Ghemawat, 2001; Shaheer and Li, 2020). Digital platforms have emerged as a viable channel for many businesses seeking easier international entry (Jean *et al.*, 2020; Jin and Hurd, 2018). Platforms such as Amazon, Alibaba, and Facebook offer novel business opportunities that enable firms to serve global customers more efficiently by significantly reducing transaction costs (Alarcón-del-Amo *et al.*, 2018). In addition to becoming important conduits for transactions in international trade, digital platforms serve as vital marketing channels that promote transactions in business-to-business (B2B) contexts effectively (Jin and Hurd, 2018; Liu *et al.*, 2020; Qi *et al.*, 2020) and enable direct contact with final consumers (B2C) on a global scale (Elia *et al.*, 2021).

In the past 20 years, scholars have developed knowledge about firms using digital platforms to internationalise (e.g. Deng *et al.*, 2021; Jean *et al.*, 2020; Jin and Hurd, 2018). For example, researchers reviewed papers on related topics, such as the impact of digital transformation on internationalisation (Feliciano-Cestero *et al.*, 2023), the internationalisation of born digitals (Monaghan *et al.*, 2020), and non-traditional entry modes using digital platforms (e.g. Brouters *et al.*, 2022). However, these studies did not extensively summarise the specific impact of digital platforms as a technology on the internationalisation of traditional firms, nor did they explore the drivers and barriers for traditional firms using digital platforms, or the changes in this process under different conditions. Review studies are a crucial step in the scientific process because they offer a state-of-the-art snapshot of a domain, help synthesise diverse findings, reveal inconsistencies, and provide directions for future research (Palmatier *et al.*, 2018; Paul *et al.*, 2021).

Accordingly, we argue that there remains a need for a comprehensive and in-depth review that synthesises and clarifies our current understanding of digital platform use in firms' internationalisation. In reality, online markets are growing rapidly; it has been estimated that they will generate \$6.3 trillion in the next few years (Pool, 2023). In this context, this review article is very timely. It brings together fragmented strands to distil important common knowledge and findings that can inform both academics and policymakers. In reviewing the current literature on digital platform use in firms' internationalisation, we identified a significant number of conceptual papers (e.g. Pezderka and Sinkovics, 2011; Sinkovics and Sinkovics, 2020). We also identified two

major issues in existing studies: (1) the frameworks employed are varied and developed independently from each other (e.g. Glavas *et al.*, 2019; Sinkovics and Sinkovics, 2020); and (2) the findings are inconsistent, leading to misunderstanding and hampering the development of this area.

Our review is important for four reasons. First, to the best of our knowledge, this is the first systematic review that synthesises existing research findings on the use of digital platforms in the context of internationalisation. Second, the study deepens our understanding of the current state of knowledge in the domain of digital platform research within this context and identifies important yet under-explored antecedents and moderators, thereby facilitating theory development. Third, it enhances the development of empirical studies in this area by emphasising the practical importance of digital platforms. We provide an integrated framework as well as methodological suggestions suited to charting future research avenues, and we shed light on promising directions. Fourth, this review offers valuable insights for practitioners, who will benefit from a deeper understanding of whether and how to apply digital platforms under various conditions when making foreign entry decisions.

2. Research Design and Methodology

2.1 Scope and analytical approach

Our research question explores how the literature has evolved concerning traditional firms' use of digital platforms in their internationalisation efforts. Digital platforms facilitate interactions among customer-to-customer (C2C), B2B, and a combination of both (B2C). These are further divided into various categories, such as social media

platforms (e.g. Facebook), e-commerce platforms (e.g. Alibaba, Amazon), gig economy platforms (e.g. Upwork), sharing economy platforms (e.g. Airbnb), online portals and app stores (e.g. Free Basics), and platforms enabling digital identity (e.g. Aadhaar) (Gawer, 2021). Specifically, e-commerce platforms represent a subset of digital platforms that offer more advanced services, including integrated logistics services, professional training, buyer–seller interaction toolkits, and customs clearance (Ojala *et al.*, 2018). Since the unit of analysis in this study is at the business level, the research scope is limited to B2B and B2C e-commerce platforms. For simplicity, we use the terms ‘digital platforms’ and ‘e-commerce’ interchangeably.

Our research focuses on the use of two-sided electronic marketplaces that connect seller firms with buyers or end users and enable them to negotiate and transact (Liu *et al.*, 2022; Thomas *et al.*, 2014), including both B2B and B2C digital platforms. By focusing exclusively on traditional firms, we aimed to provide a thorough examination of their strategies, motivations, and outcomes, and of the implications of using digital platforms for international expansion. The depth in this study provides a comprehensive understanding of traditional firms’ experiences with internationalisation via digital platforms. While much scholarship from other disciplines, such as economics, international trade, and global value chain exports, has examined the effects of digital platforms on country-level outcomes (e.g. Fan *et al.*, 2018; Yin and Choi, 2021), these studies fall outside the scope of this review. Therefore, our review primarily covers business journals but also includes articles from neighbouring disciplines that focus on firm-level dependent variables, such as e-commerce and information systems.

2.2 Selection and analysis of relevant articles

The domain-based approach to systematic literature review was employed to identify, select, critically evaluate, and synthesise relevant literature on the use of digital platforms in firms' internationalisation in a rigorous, unbiased, transparent, and replicable manner (Paul and Criado, 2020). To provide a comprehensive systematic literature review of firms' internationalisation through digital platforms, we conducted the review using content analysis and followed the recommended review scheme of Feliciano-Cestero *et al.* (2023) (see the systematic review design in Figure 1). Content analysis is a well-organised approach that helps to extract systematically the significance of a large amount of information from the literature (Zahoor *et al.*, 2023) and allows the identification of topics based on this information (Feliciano-Cestero *et al.*, 2023).

(Insert Figure 1 here)

Initially, we endeavoured to identify as many potentially relevant studies as possible by considering a broad context (Andrews *et al.*, 2022). Following Hiebl's (2021) recommendation to minimise database-specific biases and data limitations, we sourced articles from Web of Science (Feliciano-Cestero *et al.*, 2023), EBSCO Business Source Ultimate (Oliveira *et al.*, 2023), and Google Scholar (Andrews *et al.*, 2022). The title, abstract, and keywords fields of the aforementioned databases were queried, as these fields typically contain the search terms (Vrontis and Christofi, 2021). The principal search terms selected were 'digital platform' and 'e-commerce'. However, these terms generated an excessive number of results that fell outside the scope of this

work. Accordingly, search terms were associated with the Boolean AND operator to form combined search strings as follows: ('digital platform' OR 'electronic platform' OR digitalisation OR 'digital firms' OR 'born digital' OR e-commerce OR website OR 'e-marketplace' OR 'digital transformation' OR 'digitisation' OR 'online retailer') AND (international* OR 'market entry' OR global* OR 'foreign market' OR export* OR 'entry mode'). Our initial search yielded 829 potential related studies. Following the removal of duplicates, the final sample consisted of 694 manuscripts.

Upon reading the titles, abstracts, and keywords, we selected articles based on the following criteria: (1) studies focusing solely on firms' adoption of B2B/B2C digital platforms in an internationalisation context; (2) only papers written in English, owing to the researchers' language limitations and the fact that the majority of seminal work in this field has been published in English-language journals (Kauppi *et al.*, 2018); and (3) only articles published in peer-reviewed academic journals (Podsakoff *et al.*, 2005). All the papers were published online between January 1999 and 31 December 2023. We selected this period on the grounds that e-commerce adoption and growth have garnered increased attention over the past two decades, particularly in 2022 and 2023. We used January 1999 as the cut-off starting point, as did Cumming *et al.* (2023), given that the first article matching our keywords was published during that year. Due to the non-negligible proportion of conceptual papers on the subject, these were also included in the analysis. This process yielded a total of 116 articles.

From this corpus and after reading the full manuscripts, we eliminated one study that focused only on the technical aspects of digital platforms. Studies were also

excluded (1) if they focused on digital platform providers themselves, since our research targeted firms using digital platforms for international market access, resulting in a sample of 93; and (2) if they examined crowdfunding platforms or social platforms such as X and LinkedIn, leaving us with 87 papers. Additionally, we omitted articles that investigated other perspectives (e.g. comparisons of e-commerce among advanced vs. emerging markets), rather than the effect of digital platforms/e-commerce on internationalisation, given that our focus is on the role and impact of digital platform use in internationalisation. These exclusion criteria led to a sample of 58 articles. Finally, we searched the reference lists of the selected studies manually using an ancestry search (Aguinis *et al.*, 2011), which added three more articles, resulting in a total of 61 papers for our final sample (see the PRISMA flowchart in Appendix 2).

2.3 Coding and analysis

For content analysis, Mayring (2014) suggested five steps: (1) developing categories based on the research questions, (2) coding the text in accordance with the categories, (3) revising the categories, (4) re-coding the text based on the revised categories, and (5) interpreting the results. The development of the coding scheme and the coding process are critical parts of content analysis (Durlau *et al.*, 2007; Gaur and Kumar, 2018). According to Gaur and Kumar's (2018) categorisation of literature review studies by scope (broad vs. narrow) and topical area (research theme vs. research method), this study can be classified as a type that focuses on a specific research topic with a narrow scope. In this study type, the suggested coding categories include research sub-themes, primary variables, scope of study, context of study, type of study

(conceptual/empirical), theory(ies) employed, industry, and key findings (Gaur and Kumar, 2018). Therefore, following the suggested coding categories (Gaur and Kumar, 2018) with some variation, this research included the following major categories: main theory(ies) employed, type of data, year of publication, publication outlet, analytical methods applied, geographic coverage, type of interpretation, research themes of conceptual papers, context, industries, and type of study. According to the objective of our review, we coded the findings of each empirical study by applying an ‘antecedents–phenomenon–consequences’ logic (antecedents of digital platform use, elements of digital platform use, and outcomes of digital platform use) by following the approach of Christofi *et al.* (2021). Table I demonstrates the coding scheme and its explanations of this study.

(Insert Table I here)

Two coders coded the articles independently across multiple dimensions. To validate the reliability of the coding process, we separately coded 13 articles that we selected at random from the sample articles, following the approach of Gaur and Kumar (2018). In line with the extant literature (Gaur and Kumar, 2018; Neuendorf, 2017; Potter and Levine-Donnerstein, 1999), we took 13 (21.31%) of the sample articles to test inter-coder reliability. In our case, the inter-coder reliability using Cohen’s kappa coefficient was 89.3%, which is in the acceptable range (Neuendorf, 2017).

3. Literature Review

3.1 Literature overview

This section presents the results of our analysis of key research trends and underlying theories, starting with the characteristics of the studies reviewed.

We analysed the content of each article and summarised the current state of the field in the literature on digital platform use in firms' internationalisation. We provided summaries of the theories that the studies drew from, the methods they used, and the outlets in which they were published. We then conducted an author and citation analysis. Finally, we analysed the contexts in which the studies were based.

(1) Theories applied

Table II shows a list of the most commonly used theories, along with the authors who employed them. Among 61 articles published between 1999 and 2023, 36 theories were used. Of these, 49 articles (80.33%) cited specific theories as a theoretical basis for addressing their research questions, as shown in Table II. The most widely applied theoretical perspective in these articles was the resource-based view (RBV), which appeared more than twice as often (12 articles, 19.67%) as the second most commonly used theory, transaction cost theory (TCT) (six articles, 9.84%). This was closely followed by institutional theory (6.56%) and signalling theory (6.56%), each cited in four articles, and the ownership, location, and internalisation (OLI) framework and industrial organisation (IO) theory, each cited in three articles (4.92%). The remaining theories included ecosystem theory, the exploration–exploitation dichotomy, and internalisation theory, each cited in two articles (3.28%). A diverse range of other

theories, such as the attention-based view, network learning theory, effectuation theory, and the demand-side perspective, were adopted in one study each.

According to the RBV, the most frequently adopted theory in these articles, firms must access resources that are valuable, rare, inimitable, and non-substitutable to build a competitive advantage (Barney, 1991). However, since information technology (IT) and computers are accessible to other firms, these factors alone cannot represent a firm's competitive advantage (Wade and Hulland, 2004). In the case of digital platforms, a competitive advantage can be generated only when platform-related resources and capabilities are embedded within higher-order organisational capabilities such as export marketing capabilities (Jean *et al.*, 2020).

TCT has for several decades primarily been used in research focusing on entry mode, including the non-traditional entry mode: cross-border e-commerce (CBEC). TCT posits that the costs associated with locating, negotiating, and overseeing potential partners significantly influence entry mode selection (Williamson, 1985). The theory explains how digital platforms have reshaped both the negative and positive effects in the relationship between rapid internationalisation and performance (Deng *et al.*, 2022). Digital platforms facilitate internationalisation by providing, for example, more instant and broader exposure to global clients and more powerful intermediary services, which significantly reduces the transaction costs involved in rapid international expansion into multiple destination markets with diversified contexts (Deng *et al.*, 2022).

Not only internal factors affect the internationalisation of firms via digital platforms. External (e.g. institutional) factors can also have a significant impact on this

process. The broader institutional environment significantly influences the structure and operations of an organisation, underscoring its importance in shaping organisational structure and behaviour (Scott, 2008).

Signalling theory, derived from information economics, emphasises the effect of signals to diminish information asymmetry; it also helps to mitigate adverse selection issues in the process through which customers distinguish between high-quality and low-quality sellers using information about their capabilities and prospects (Bergh *et al.*, 2019).

(Insert Table II here)

Figure 2 depicts a combination of temporal distribution and applied theories from the literature on digital platform use in firms' internationalisation. This figure illustrates that, despite being a relatively recent phenomenon, interest in the international dimensions of digital platform use has risen rapidly. To facilitate the interpretation of the figure, we have omitted the years in which no articles on re-entry were published (i.e. 2000, 2003, 2008, 2010, and 2012–2014). Of the 61 articles sampled, 65.57% were published within the past five years. Despite limited publications in the early stages (1999–2019), an accumulative effect can be observed, and the trend is upward. This mirrors the growing academic importance of digital platforms, in line with increasing globalisation and advances in digital technology. Figure 2 also reveals an increasing number of studies that have drawn on a more diverse range of theoretical approaches from other disciplines.

(Insert Figure 2 here)

(2) Methodologies adopted

In terms of analytical methods, among the 61 papers reviewed, 12 were qualitative, 21 were quantitative, 10 adopted a mixed-methods approach, and the remaining 18 were conceptual. Concerning data collection, primary data served as the main source. More specifically, surveys (including questionnaires, web surveys, qualitative surveys, and phone surveys) accounted for 22 papers (51.16%), making them the most prevalent data source for empirical studies on digital platform use in firms' internationalisation. For other primary data sources, such as case studies or in-depth/semi-structured interviews, they comprised 20 papers, accounting for 46.51% of these 43 empirical papers. For secondary data, 21 studies (48.84%) utilised sources such as archival records, panel data, secondary survey data, or text-mining data. The sample size varied considerably depending on the type of research that was conducted.

As shown in Table III, regression analysis was the most common method, appearing in six papers (13.95%) among the empirical studies. This suggests that a large number of the articles focused on studying the impact of antecedents and their interaction with moderators on internationalisation through the adoption of digital platforms. Structural equation modelling (SEM) has also been widely employed and featured in five papers (11.63%). Many articles sought to uncover the complex processes through which antecedents affect digital platform use in firms' internationalisation. Unlike regression analysis, SEM allows the estimation of multiple relationships and simultaneously encompasses specific measurement properties of latent variables (Hair *et al.*, 2009; Tenenhaus *et al.*, 2005). Other analytical methods

used in the studies included ordinary least squares (OLS) regression (three studies, 6.98%), content analysis (three studies, 6.98%), partial least squares (PLS) SEM (three studies, 6.98%), fuzzy-set qualitative comparative analysis (fsQCA) (two studies, 4.65%), mediation analysis (two studies, 4.65%), binomial logistic regression (two studies, 4.65%), GMM modelling (two studies, 4.65%), thematic analysis (two studies, 4.65%), and cox proportional hazard model (two studies, 4.65%).

(Insert Table III here)

(3) *Academic sources and citations*

We analysed the publication outlets of all 61 articles on digital platform use in firms' internationalisation, as shown in Table IV. These articles were primarily published in IB journals and marketing journals. For instance, *Journal of International Business Studies* published nine articles, followed by *Management International Review* and *Journal of International Management* (six each), *International Business Review* (four), *International Journal of Retail and Distribution Management* and *Journal of International Marketing* (three each), *Industrial Marketing Management*, *Journal of International Entrepreneurship*, *International Small Business Journal*, *Journal of Business Research*, and *Journal of World Business* (two each).

Journal of International Business Studies was the most popular outlet for articles about digital platform use in firms' internationalisation, contributing nine papers during the review period. It also published the highest number of conceptual papers on this topic. Other IB journals, such as *Management International Review*, *Global Strategy*

Journal, *Journal of Small Business Management*, *Journal of Asia-Pacific Business*, and the *Journal of Business-to-Business Marketing*, also actively engaged with the subject.

In addition to IB and marketing, the other two disciplines with substantial contributions were electronic commerce and information systems. Among electronic commerce journals, significant contributions came from *Journal of Electronic Commerce Research* and *Electronic Commerce Research*. In the field of information systems, *Information Society*, *International Journal of Information Management*, and *Information Systems Frontiers* were the most representative journals concerning digital platform use in firms' internationalisation.

(Insert Table IV here)

Using Harzing's (2007) Publish or Perish software (PoP, version 7), we investigated the total and average annual citations of all 61 articles published in the field of digital platform use on firms' internationalisation to identify the most influential articles in this field. The results are shown in Table V. The study by Nambisan *et al.* (2019) ranked first in both rankings, with 351 citations. However, some shifts occurred in the ranking based on the average citation score compared to the ranking according to the total number of citations. Numerous studies fell out of the top 10 in the average citation score ranking, including research by Gregory *et al.* (2007), Kraemer *et al.* (2005), Singh and Kundu (2002), Tiessen *et al.* (2001) and Watson *et al.* (2018).

(Insert Table V here)

(4) Research context

Among the 43 empirical papers out of a total of 61 papers, 12 studies collected their data from China as the home country, followed by Italy (six studies) and Sweden (three studies) (see Table VI). While the high level of academic interest in China may be attributed to the country's growing economic and political standing, the selection of other national contexts appears to have been influenced by the presence of large scholarly communities. These communities have a tradition of publishing in the high-impact journals identified in this review, accessibility of datasets, and/or the presence of a prolific scholar working within collaborative networks. Surprisingly, there were very few studies from large, developed countries, such as the USA and the UK. Moreover, only a few studies referred to the host country context, and even fewer considered the relationship between partners from the home and host countries.

(Insert Table VI here)

3.2 Summary of conceptual papers examined

Over the past two decades, a range of commentaries and reviews have offered various viewpoints on the literature concerning digital platform use in firms' internationalisation (e.g. Dunning and Wymbs, 2001; Fariselli *et al.*, 1999; Singh and Kundu, 2002; see Table VII). We identified five streams of conceptual papers concerning the role of digital platforms and e-commerce in business internationalisation facilitated by Internet penetration. These streams include the impact of digital platform/e-commerce as an entry mode (Brouthers *et al.*, 2022; Ekeledo and Sivakumar, 2004; Hennart, 2022; Meyer *et al.*, 2023; Watson *et al.*, 2018), the revaluation of

theories in digital platform use in firms' internationalisation (Dunning and Wymbs, 2001; Grant and Bakhru, 2004; Karavdic and Gregory, 2005; Luo, 2021; Singh and Kundu, 2002), e-commerce policy (Ahi *et al.*, 2023; Cha *et al.*, 2023; Cumming *et al.*, 2023; Fariselli *et al.*, 1999), global platforms and ecosystems (Das, 2023; Li *et al.*, 2019; Nambisan *et al.*, 2019), and digital platform risk (Pezderka and Sinkovics, 2011).

An important stream among these commentaries (Brouthers *et al.*, 2022; Ekeledo and Sivakumar, 2004; Hennart, 2022; Meyer *et al.*, 2023; Watson *et al.*, 2018) is the discussion on e-commerce entry modes, which differ from traditional approaches. Initially, building on calls from the early twenty-first century for the reconceptualisation of marketing theories and concepts, with services as a key component, Ekeledo and Sivakumar (2004) focused on the intersection of e-commerce, services marketing, and choice of foreign market entry mode. Their research offers an integrative conceptual framework that explores the role of e-commerce on the entry mode choices of service firms, taking into account several internal and external factors as moderators. More recently, in the context of digital communications, Watson *et al.* (2018) investigated the impact of these new technologies on international market entry (IME) and proposed a taxonomy of IME strategies. They defined four main categories of entry modes: traditional, relational, digital, and hybrid. Similarly, Meyer *et al.* (2023) identified participation in digital platforms as one of the three digital strategies that are supposed to be interdependent with internationalisation strategies. Brouthers *et al.* (2022) categorised these non-traditional entry modes as capital access, innovation outposts, virtual presence, and the managed ecosystem, all of which are based on an

exploitation–exploration–embeddedness framework. However, Hennart (2022) argued that the framework proposed by Brouthers *et al.* (2022) is unconvincing.

The second stream addresses the challenges that e-commerce brings to existing IB theories (Dunning and Wymbs, 2001; Grant and Bakhru, 2004; Karavdic and Gregory, 2005; Luo, 2021; Singh and Kundu, 2002). Dunning and Wymbs (2001) discussed the impact of e-commerce on IB theory, particularly the eclectic paradigm. They systematically analysed and applied each of the OLI components of the paradigm, along with their related IB theories, to e-commerce development. Karavdic and Gregory (2005) proposed a new paradigm that integrates e-commerce with the existing theories on export marketing. Theirs is a contingency approach that compares the relationships between export marketing strategy and export performance, taking into account the moderating effect of e-commerce utilisation. Singh and Kundo (2002) integrated network theory, TCT and RBV within the context of the eclectic paradigm.

Based on the eclectic paradigm proposed by Dunning and Wymbs (2001), Luo (2021) introduced a new perspective concerning internationalisation advantages for multinationals: new O (open) resource advantages, L (linkage) advantages, and I (integration) advantages. These are complementary and coupled with traditional OLI advantages. According to the level of engagement in digital activities, as well as the need for national differentiation, Grant and Bakhru (2004) developed a classification of internationalisation modes to qualify the particular characteristics of e-commerce, one of the elements of the Internet.

Concerning the third stream, four papers (Ahi *et al.*, 2023; Cha *et al.*, 2023; Cumming *et al.*, 2023; Fariselli *et al.*, 1999) focused on global e-commerce policy. Fariselli *et al.* (1999) highlighted the importance of network externalities and institutional factors affecting trust and the relationships among different economic actors. This leads to a broader consideration of networking and public policies. Moreover, Cha *et al.* (2023) found that divergence in global e-commerce policies in different countries significantly impedes the internationalisation of business models based on digital platform-based transactions. In their review, Ahi *et al.* (2023) deemed it imperative to design policies that improve countries' formal institutions and facilitate the adoption of e-commerce by small and medium-sized enterprises (SMEs). Cumming *et al.* (2023) examined articles in the international e-commerce policy field and identified the key enabling and constraining factors of CBEC, issuing a call for greater integration of e-commerce policy in IB.

Regarding the fourth stream, recent scholars (Das, 2023; Li *et al.*, 2019; Nambisan *et al.*, 2019) discussed the relevant concepts of the digital platform ecosystem (DPE) in the context of firms' internationalisation. Since the phenomenon of 'platformisation' – the shift from individual products or services to platforms as the basis for offering value – and the emergence of associated ecosystems, the DPE has become a venue for multifaceted innovation and a multi-sided marketplace (Nambisan *et al.*, 2019). Moreover, ecosystem-specific advantages arise from heterogeneous resources and distributed innovation, cooperation among ecosystem participants, and multilateral interdependence among these participants. Li *et al.* (2019) proposed a framework that

can be applied to future research on digital platforms. In the international entrepreneurial area, Das (2023) provided new insights into how trust affects inter-firm relationships and smart contracts when firms participate in the DPE.

Finally, a study on digital platform risk conducted by Pezderka and Sinkovics (2011) identified risks for the online environment. The authors integrated the e-risk framework into the eclectic paradigm – Dunning’s OLI framework – and created a foundation for future research on international e-risk perception.

(Insert Table VII here)

3.3 Thematic analysis of empirical articles

The 43 empirical articles examined were grouped into three categories according to the process of internationalisation through digital platforms: (1) elements of digital platform use in firms’ internationalisation, (2) antecedents of digital platform use in firms’ internationalisation, and (3) outcomes of digital platform use in firms’ internationalisation (see Figure 3).

(Insert Figure 3 here)

3.3.1 Elements of digital platform use in firms' internationalisation

In the process of internationalisation through digital platforms, firms deploy and interact with different elements within and beyond the use of the platform. On the basis of a close examination and holistic review, we categorised the various elements of digital platform use in firms’ internationalisation into the following: presence, functionality, capabilities/resources, and risk.

(1) Presence of digital platforms

Several studies explored the effects of the presence of digital platforms, such as simple usage or selecting e-commerce as a foreign market entry mode (Pan *et al.*, 2022; Witek-Hajduk *et al.*, 2022). Kromidha and Robson (2021) employed website traffic as a key measure of digital presence to examine its impact on internationalisation prospects because it sends important signals to firm stakeholders globally. Among various types of digital platforms, B2B platforms were the most prevalent type investigated in the studies examined (e.g. Deng and Wang, 2016; Deng *et al.*, 2021; Gregory *et al.*, 2019). Only Kraemer *et al.* (2005) contrasted B2B and B2C e-commerce by exploring the differentiated effects of globalisation on them. Unlike B2B e-commerce, retail (B2C) e-commerce is relatively unaffected by globalisation and is characterised by multidomestic competition (Kraemer *et al.*, 2005). Considering the continuing blurring of the boundary between online B2B and B2C transactions, some scholars (Elia *et al.*, 2021; Kromidha and Robson, 2021; Liu *et al.*, 2022) did not differentiate between them in their studies.

Unlike traditional entry modes, a digital platform (commonly referred to as CBEC) is often considered an entry mode that can be executed without the need for a physical presence in the host country (Qi *et al.*, 2020). The digital platform serves as an intermediary for international trade and acts as an e-marketplace that connects buyers and sellers worldwide (Qi *et al.*, 2020).

(2) Functionality of digital platforms

Digital platforms offer a network that enables firms to expand globally through various functions. These functions signal the firm's competence to deliver value and better

serve customers. For instance, the languages available on websites enable SMEs to share more accessible information and interact more effectively with consumers (Caputo *et al.*, 2022). Moreover, interactions on cross-side digital platforms co-create value with customers (Liu *et al.*, 2022). Customers generate review ratings for online firms based on their overall capability to deliver high-quality products and/or services, which signals the reputation of online firms (Deng *et al.*, 2022; Luo *et al.*, 2022). Additionally, Deng *et al.* (2021) investigated the degree and duration of the effects of deceptive signalling on globalised digital platforms, as well as naturally formed organic signalling and discernible-induced signalling.

(3) Capabilities/resources of digital platform use

In this review, the capabilities and resources related to the use of digital platforms in firms' internationalisation include firms' ability to leverage digital platforms and the resources that can be invested therein. For example, Jean and Kim (2020) defined platform capability as the extent of SMEs' ability to use the various functions and services offered by platforms for exporting. Similarly, on the basis of a qualitative study, Tolstoy *et al.* (2021) introduced the concept of digital business capabilities, defined as the competencies by which companies align digital technology features with customer needs and wants. Raymond *et al.* (2015) elucidated the impact of e-business capability on internationalisation. Gregory *et al.* (2019) demonstrated the important role of e-commerce marketing capabilities in increasing efficiency and market performance.

In terms of digital platform resources, Fan *et al.* (2023) defined platform empowerment as a CBEC platform that provides the resource support needed for SMEs

to develop their export potential, thereby enhancing their competitiveness within the platform's ecosystem. Digital platform attention (DPA) describes the managerial attention devoted to digital platforms and is categorised into three dimensions of attention: intensity, persistence, and scope (Li *et al.*, 2022). A greater investment of resources and explicit attribution of prominence by managers towards employees led to firms exhibiting a higher level of commitment to e-commerce (Ballerini *et al.*, 2023). In the online marketplace, the reputation of firms can also be regarded as an intangible resource (Luo *et al.*, 2022). Singh *et al.* (2023a) delineated seven types of platform-based advantages representing platform resources and their strategic orchestration and explicated their role in facilitating the internationalisation of platform sellers.

(4) Digital platform risk

Digitalisation not only offers opportunities for firms but also generates new types of threats and risks (Jean *et al.*, 2020). However, somewhat less attention has been given to the dark side of digital platform use in firms' internationalisation. Two papers investigated the antecedents and outcomes in this regard. Jean *et al.* (2020) defined digital platform risks as opportunistic behaviours and the uncertainty encountered on digital platforms during the process of establishing exchange relationships with foreign customers. In the context of e-commerce policy, Lee *et al.* (2023) examined the impact of institutional pressure on digital platform risk.

3.3.2 Antecedents of digital platform use in firms' internationalisation

In an attempt to reveal the underlying nature of digital platforms, academic attention has been directed towards the drivers influencing firms' adoption of digital platforms.

These factors are categorised into three groups: individual, organisational, and environmental factors.

At the individual level, the research currently available has revealed the direct impact of manager-level factors on the adoption of digital platforms. For example, managers chose e-commerce as an internationalisation entry mode into foreign countries for its cost-effectiveness and efficiency (Goncalves and Smith, 2017). Furthermore, a willingness to undertake risk is a prerequisite for companies to develop digital business capabilities (Tolstoy *et al.*, 2021). Moini and Tesar (2005) found that the scope of internationalisation through the Internet among SMEs is affected by internal factors, such as management's perceptions of the effectiveness of their websites as marketing tools or their lack of experience.

At the organisational level, strategic-proactive motives (e.g. higher brand-creation efficiency or faster brand internationalisation) are important for applying e-commerce as a mode of entry for fashion brands of SMEs (Witek-Hajduk *et al.*, 2022). When engaged in this channel, substantial investments in platform-relevant resources are prerequisites for companies to develop digital business capabilities (Tolstoy *et al.*, 2021). Ipsmiller *et al.* (2022) also found that firms that are more entrepreneurially oriented (EO) were more likely to seize internationalisation opportunities through active internationalisation websites. Concerning the negative aspects of digital platforms, product specificity is one of the antecedents of platform risk (Jean *et al.*, 2020).

Inconsistent findings exist regarding the effect of firm size when firms enter foreign markets via CBEC. Contrary to the prevailing view that firm size is irrelevant when serving international markets electronically (e.g. Elia *et al.*, 2021), using cross-country samples, Eduardsen *et al.*'s (2023) findings demonstrate that small or micro-sized firms may face additional CBEC barriers (e.g. financial complexities, dealing with foreign markets, supplier restrictions, and technical difficulties) that constrain their ability to exploit opportunities in international markets effectively. Tiessen *et al.* (2001) also identified firm size as being related to e-commerce use when firms seek to expand into new international markets. Specifically, firm size has a positive impact on small firms' entry into the e-marketplace (Hossain *et al.*, 2021).

Regarding environmental factors, market-reactive motives (e.g. industry trends and product category specifics) are important drivers for using CBEC as an entry mode (Witek-Hajduk *et al.*, 2022). Additionally, market changes and industry norms are two types of environmental variables related to the reasons firms use e-commerce (Tiessen *et al.*, 2001). Jean *et al.* (2020) explored foreign market competition, domestic institutional voids, and foreign market uncertainty as antecedents of platform risk. Extending this, Lee *et al.* (2023) found that both domestic and foreign market e-commerce policy uncertainties positively affected the digital platform risk for international new ventures (INVs). Notably, under the conditions of COVID-19, the relationship between market e-commerce policy uncertainty and digital platform risk for INVs has altered (Lee *et al.*, 2023). It is also worth noting that e-commerce activities

differ by type; more specifically, highly global firms are more likely to engage in B2B but less likely to engage in B2C endeavours (Kraemer *et al.*, 2005).

3.3.3 Outcomes of digital platform use in firms' internationalisation

Given the significant effect of digital platforms on internationalisation, the outcomes of digital platform use in firms' internationalisation have piqued the interest of scholars in IB studies. Two broad categories of outcomes have been identified in the literature: firm outcomes and internationalisation outcomes.

(1) Firm outcomes

Excluding internationalisation outcomes, firm outcomes pertain to the competitive advantages generated after adopting digital platforms as firms enter foreign markets. The functions provided by digital platforms are highly beneficial for firms' growth (Caputo *et al.*, 2022; Karakaya and Stahl, 2009), reducing uncertainties and opportunistic behaviours while increasing trust (Qi *et al.*, 2020), facilitating (Pan *et al.*, 2022) or damaging innovation (Macchion *et al.*, 2017), pushing for higher resource integration (Hu *et al.*, 2023), building resilience (Onjewu *et al.*, 2022), and amplifying early-mover advantages (Deng and Wang, 2016), ultimately resulting in higher firm performance (Ballerini *et al.*, 2023).

Specifically, the number of languages available on an SME's website can facilitate the SME's return on sales in foreign markets (Caputo *et al.*, 2022). Karakaya and Stahl (2009) found that e-commerce resource constructs, such as the steep learning curve involved in conducting e-commerce, impact firm profitability. Using digital platforms for internationalisation can reduce uncertainties and opportunistic behaviours while

increasing trust (Qi *et al.*, 2020). It is also more conducive to innovation in SMEs than other modes of entry, with entrepreneurial orientation serving as a mediating factor (Pan *et al.*, 2022). However, Macchion *et al.* (2017) found that the adoption of e-commerce tools could even have a negative impact when applied at the international level, particularly when considering operational practices related to innovation.

Digital platforms, as resources, do not have value on their own but gain value through the utilisation and combination, in different ways, of social and economic actors in service ecosystems (Hu *et al.*, 2023). Nonetheless, digital platforms push for higher resource integration among the ecosystem's actors (Hu *et al.*, 2023). To succeed in the use of digital platforms, firms must develop their platform utilisation capabilities. The rapid, convenient, and wide market access offered by these platforms may allow early-mover exporters to enjoy advantages over late movers in terms of learning effects and switching costs (Deng and Wang, 2016). Management commitment is one of the important factors that influence e-commerce communication efficiency (Gregory *et al.*, 2007). The higher the e-commerce commitment, the higher the e-commerce performance is likely to be (Ballerini *et al.*, 2023).

(2) Internationalisation outcomes

The outcomes of internationalisation in this review are directly linked to foreign entry strategies and internationalisation performance. The studies under review explored key internationalisation outcomes arising from the use of digital platforms. These include internationalisation (Ballerini *et al.*, 2023; Foscht *et al.*, 2006; Singh *et al.*, 2023b), international performance (Deng *et al.*, 2021; Eduardsen *et al.*, 2023; Fan *et al.*, 2023;

Gregory *et al.*, 2019; Jean and Kim, 2020; Jean *et al.*, 2021; Tolstoy *et al.*, 2022), international sales (Li *et al.*, 2022; Tolstoy *et al.*, 2016), international diversification (Batsakis *et al.*, 2023), export marketing strategy (Gregory *et al.*, 2007), exporting (Elia *et al.*, 2021; Onjewu *et al.*, 2022), international intensity (Liu *et al.*, 2022), international orientation (Lee *et al.*, 2022), exit from (Deng *et al.*, 2022) and survival (Luo *et al.*, 2022) on cross-border online platforms, export intermediaries (Houghton and Winklhofer, 2004), and internationalisation scope (Jean *et al.*, 2020).

Foscht *et al.* (2006) considered internationalisation via e-commerce as the only way that small retailers could internationalise within a short period. Furthermore, selling online facilitates internationalisation, with direct selling through owned websites actualising consumer knowledge generation and internationalisation, and agency selling through third-party platforms actualising all three affordances (i.e. consumer diversification, knowledge generation, and internationalisation) (Ballerini *et al.*, 2023). Additionally, e-commerce policy benefits platform-based internationalisation by mitigating CBEC entry barriers (e.g. market dominance by large sellers and unfair trading practices) (Singh *et al.*, 2023b).

Internationalisation performance is one of the main outcomes investigated in studies concerning the use of digital platforms in firms' internationalisation efforts. These studies have employed a range of measures to gauge internationalisation performance, including export sales performance (Jean *et al.*, 2021), international performance (Tolstoy *et al.*, 2022), exporter performance (Deng *et al.*, 2021), export performance (Fan *et al.*, 2023; Jean and Kim, 2020), export venture e-commerce

performance (Gregory *et al.*, 2019), and online export performance (Eduardsen *et al.*, 2023).

Exporters can utilise e-platforms effectively to establish contact with foreign buyers and enhance their export sales performance (Jean *et al.*, 2021). When engaging in CBEC, SMEs can develop the online marketing capability that is necessary, but not sufficient, to improve their international performance (Tolstoy *et al.*, 2022). Deng *et al.* (2021) discovered that among the three types of signalling (deceptive, inducing, and organic signalling), deceptive signalling on digital platforms has the most immediate and largest enhancing effects on exporter performance, while organic signalling exerts the most durable effect. The findings of research conducted by Jean and Kim (2020) indicate that platform capabilities are positively related to both export marketing capabilities and export performance. Furthermore, the effects of platform and web capabilities on export marketing capabilities are moderated by product complexity and competitive intensity (Jean and Kim, 2020). In the relationship between e-commerce marketing capabilities and export venture e-commerce performance, distribution efficiency and promotion efficiency act as mediators (Gregory *et al.*, 2019).

Tolstoy *et al.* (2016) and Li *et al.* (2022) found that the adoption of online sales channels and a more intense and persistent DPA affected international sales positively. However, the relationship between online sales channels and international sales was moderated negatively by geographical scope (Tolstoy *et al.*, 2016). Additionally, multinational enterprises (MNEs) with more diversified DPA scope experience constrained international sales (Li *et al.*, 2022). Unlike in physical channels, where

increased product diversification relates negatively to international diversification in both physical and digital channels, increased product diversification in digital channels relates positively to international diversification in both channels (Batsakis *et al.*, 2023).

Gregory *et al.* (2007) discovered that e-commerce assets had a positive and direct impact on export marketing strategy. Elia *et al.* (2021) extended this research by discovering that firms employing an e-commerce manager were more likely to undertake digital exports than those relying on a traditional export manager, regardless of firm size. In contrast, Onjewu *et al.* (2022) found that although e-commerce had a positive impact on direct exports, it negatively influenced indirect exports.

On digital platforms, cross-side network interactions could enhance international intensity (Liu *et al.*, 2022). However, industry growth in the home country and firm size acted as negative moderators (Liu *et al.*, 2022). Lee *et al.* (2022) found that the use of foreign B2B platforms by SMEs had a stronger positive impact on their international orientation than did the use of domestic platforms. Moreover, the COVID-19 pandemic mitigated the positive impact of the use of both foreign and domestic platforms on their international orientation (Lee *et al.*, 2022).

The speed of internationalisation mitigates the risk of exit for exporters, as organisational learning acquired through rapid internationalisation can counterbalance the diseconomies of time compression (Deng *et al.*, 2022). In this context, digital signals regarding product quality exerted a positive moderating effect, while digital infrastructure had a competing and curvilinear moderating influence (Deng *et al.*, 2022).

Additionally, the reputation of firms' overall capability on a cross-border B2B platform showed a U-shaped relationship with firm survival (Luo *et al.*, 2022).

The adoption of a digital platform does not, however, invariably yield positive results. For instance, Kromidha and Robson (2021) discovered that a digital presence was not systematically related to internationalisation and advised firms to opt for well-established digital platforms rather than developing their own websites. Compared to websites, e-commerce did not offer a profitable alternative to the channels provided by existing export intermediaries (Houghton and Winklhofer, 2004). Digital platform risk was also found to reduce the internationalisation scope of INVs (Jean *et al.*, 2020).

The adoption of a digital platform moderates the relationship between a firm's resources or capabilities and its internationalisation outcomes. Specifically, the use of third-party e-commerce platforms negatively moderates the relationship between IT capabilities and CBEC financial performance (Cassia and Magno, 2022).

4. Discussion and Implications

Our findings suggest that digital platforms serve as a facilitator in the process of firms' internationalisation. Accordingly, in addition to serving as an intermediary to promote interactions between firms and customers, these platforms can also act as a non-traditional entry mode that enables firms without a physical presence to enter the host country. The use of digital platforms provides firms with competitive advantages and promotes both international sales and performance. Moreover, it mitigates the risk of firms' exiting foreign markets. While an investment in digital platforms is thus necessary, it is not sufficient for guaranteeing a successful market entry. Relying too

much on digital platforms and lacking a physical presence may cause a ‘virtuality trap’, which will generate new types of risks on digital platforms. Overall, traditional firms still face challenges in terms of managing digital platforms when internationalising.

Our findings reveal issues in the current studies on traditional firms’ internationalisation through digital platforms. One of these issues is that studies have employed different theoretical perspectives from other disciplines, such as signalling theory and ecosystem theory from the field of economics and strategic management, as well as effectuation theory from the field of entrepreneurship, which may be a reason for the fragmentation among digital platform use studies in the IB context.

Second, our review found that, concerning the conceptualisation of digital platforms, current studies acknowledge the differences between e-commerce and digital platforms. Specifically, compared to conventional e-commerce, digital platforms offer more advanced and intelligent services, such as integrated logistics services, buyer–seller interaction toolkits, sponsored search listings, and personalised recommendation algorithms (Deng *et al.*, 2022). However, IB studies have not presented clear definitions of or differentiation between the two concepts (Deng *et al.*, 2022).

Third, there remain some inconsistencies regarding the role of firm size in foreign market entry through digital platforms. For example, contrary to the prevailing view that firm size is irrelevant when serving international markets electronically (e.g. Elia *et al.*, 2021), Eduardsen *et al.*’s (2023) findings demonstrate that small or micro-sized firms may face additional CBEC barriers. In addition, firm size has been shown to have a positive impact on small firms’ entry into the e-marketplace (Hossain *et al.*, 2021).

Fourth, the majority of researchers have to date employed a combination of two or more theories, or have adapted existing theories, to elucidate the phenomenon of internationalisation through digital platforms. However, a definitive consensus on an optimal theory has not been reached.

Several significant managerial implications can be drawn from the findings of our review. First, the characteristics of managers are of great importance in the adoption of digital platforms. For firms with a target in terms of online sales, young managers who are more willing to take risks and perceive digital channels as effective should be considered. Moreover, top managers should pay more attention to digital platforms when engaging in foreign sales to promote performance, since digital platforms not only serve as instruments to support a streamlined process but also act as catalysts that can propel the company to become an active participant in the emerging digital and hyper-connected socio-economic environment (Caputo *et al.*, 2022). Second, our study allows managers to understand that digital platforms not only provide opportunities for complementors but also pose risks that may hinder their internationalisation into foreign countries (Jean *et al.*, 2020). To mitigate the digital platform risks, managers should consider the importance of external factors, such as e-commerce policy uncertainties, digital infrastructure, and foreign market competition. Third, for successful adoption of digital platforms, making an essential investment in them is not enough (Tolstoy *et al.*, 2021); managers should also realise the importance of the development of IT capabilities. This involves not only a virtual presence on digital platforms, but also the development of a skilled workforce, the integration of digital

technologies, and the establishment of efficient processes to harness the full potential of digital platforms. Concurrently, managers should not rely on digital platforms without also having a physical presence in the host countries. While digital platforms offer unparalleled reach and connectivity, a physical and local presence can provide critical insights into the nuances of the host markets and establish stronger relationships with local stakeholders.

5. Conclusions and Further Research

Over the past three years, there has been a significant increase in research interest concerning internationalisation through digital platforms. Our study not only offers a thorough understanding of the basic characteristics of these studies – including their publication sources, methods/theories used, leading researchers, and primary countries of analysis – but also proposes a comprehensive framework for identifying and synthesising the relationships between major variables. However, our review is not without limitations.

First, this review relied on a limited set of studies on the internationalisation of traditional firms by B2B/B2C transaction digital platforms, since a comprehensive review of articles about digital platforms was beyond our research scope. Future studies may examine how firms utilise other digital technologies to decide and implement their internationalisation strategies: for example, how the presence of firms on social media platforms facilitates internationalisation outcomes or how other revolutionary technologies, such as blockchain technology, can benefit firms in the global value chain. It would also be beneficial to examine the research on internationalisation of digital

platforms (e.g. i-business firms), as they have reshaped the ways in which businesses are operated to help them compete successfully in foreign markets. Our study focused on B2B/B2C transaction platforms; accordingly, gaps may remain concerning the scrutiny of current research on other types of digital platforms or other ways to employ more diversified digital platforms, since international expansion through digital channels requires a combination of online and physical presence (Batsakis *et al.*, 2023; Tolstoy *et al.*, 2021).

Second, our review has limitations that arose from our research process. It is, for example, restricted to articles published in academic journals, and the qualitative approach to the selection of articles may have resulted in selection bias. Limiting the research to include only studies written in English also raises questions regarding the potential exclusion of valuable insights available in non-English literature. In addition, although our search process adopted a broad scope to provide comprehensive coverage of the relevant literature, we may have overlooked articles that did not make full use of the keywords we employed in our sample search, or that used slightly different terminology to address the same phenomenon. Moreover, our study sample included articles published up until December 2023. During the review and editing process of our study, some articles that would have met our research criteria may have been published.

Finally, as our review discovered, the current research on firms' internationalisation through digital platforms is still in its nascent phase. Based on the analyses presented above and employing an AMO (antecedents, mediators/moderators,

and outcomes) framework (see Figure 4), we identified several gaps and future trends in the existing research and mapped the interrelationships between antecedents, mediators, moderators, and outcomes, which are discussed below. This section outlines future opportunities for research on digital platform adoption in the IB domain, with a specific focus on theories, industries, location, and methodology by following previous state-of-art systematic reviews published in IB journals (Christofi *et al.*, 2021; Makrides *et al.*, 2022). Promising research questions are also presented. By building on the AMO framework and future directions related to theories, industries, location, and methodology, we aim to identify areas that deserve further attention and offer useful avenues for future research (see Table VIII for a synthesis).

(Insert Table VIII here)

(Insert Figure 4 here)

5.1 Antecedents of digital platform use in internationalisation

The antecedents category includes promising research directions at the individual, organisational, and environmental levels. First, at the individual level, although the existing literature provides insights into the antecedents of digital platform use in internationalisation – such as managers’ perceptions (Moini and Tesar, 2005) – there has been a noticeable lack of emphasis in empirical studies on managers’ individual characteristics. Consequently, a more in-depth analysis of the influence of individuals is suggested as a topic for future research. For instance, we identify potential by exploring managers’ perceptions and how they influence why and how firms seek to implement information systems technologies. These perceptions include perceived

usefulness, perceived ease of use, and the objective usability of the technology (Venkatesh, 2006; Venkatesh and Bala, 2008; Venkatesh *et al.*, 2003). Furthermore, considering the platform-related capabilities or characteristics of managers, such as age, education, and e-commerce experience, this context could be a promising avenue for future investigation.

Second, at the organisational level, firm size is generally indicated as a positive factor that relates to a higher propensity for engaging in digital exports (Elia *et al.*, 2021), internationalisation (Kromidha and Robson, 2021), and firms' entry into the e-marketplace (Hossain *et al.*, 2021; Tiessen *et al.*, 2001). However, the aforementioned thematic analysis revealed that the findings concerning the effect of firm size on CBEC entry into foreign markets were contradictory. Some scholars argue that firm size is irrelevant when adopting CBEC, while Eduardsen *et al.* (2023) contend that small and micro-sized firms face more CBEC barriers. In contrast, firm size has a negative moderating effect on the relationship between cross-side network interaction and the international intensity of manufacturing firms (Liu *et al.*, 2022). Consequently, gaps exist in our understanding of the relationship between firm size and CBEC barriers. Future research is needed to examine this issue and identify different types of barriers that hinder firms from utilising digital platforms for foreign expansion. Notably, larger firm size acts as a negative moderator in the relationship between cross-side network interactions and international intensity (Liu *et al.*, 2022).

Very little research has focused on digital platform use in the long run after early expansion. Previous studies have acknowledged that online selling could cause channel

conflicts because of the threat it poses to traditional marketing channels (Ballerini *et al.*, 2023; Du *et al.*, 2018). Questions nevertheless remain: what factors influence whether companies continue utilising platforms for internationalisation or transition to traditional modes? How can firms adopt multi- and omnichannel marketing strategies, and adapt flexibly to changes both online and offline? How can a balance be struck between different channels? Research concerning online retailers has investigated import factors influencing foreign market selection behaviour, such as market size, local market knowledge, and cultural and geographic distance (e.g. Schu and Morschett, 2017). It is suggested that future research examine other factors, such as CBEC entry barriers and e-commerce experience, or other external factors such as the different dimensions of institutional distance, which may influence entry mode selection or channel management after firms' early expansion into foreign markets.

We currently have limited knowledge about the factors that cause digital platform risks, especially at the organisational level. Since foreign expansion using digital platforms is more complicated and riskier than traditional offline internationalisation (Deng and Wang, 2016), it is crucial to investigate the antecedents that contribute to digital platform risks and their impacts. Future research should explore other types of antecedents, including firms' resources and capabilities. For example, scholars have suggested key resources and capabilities – such as international marketing orientation, international orientation, and foreign distributors' capabilities – that may affect the level of digital platform risk (e.g. Knight and Kim, 2009; Weerawardena *et al.*, 2014).

Apart from individual- and organisational-level drivers of digital platform use, much still needs to be understood about the environmental factors that influence e-commerce utilisation. Future research focusing on additional antecedents could make valuable contributions, particularly concerning external constructs such as digital infrastructure or support from home/destination countries, which may motivate firms to adopt digital platforms when expanding into foreign markets.

5.2 Mediators of digital platform use in internationalisation

In the context of digitalisation, updating new technologies and processes is essential to maintain competitiveness in foreign markets. However, we have observed inconsistencies in the effect on firms' innovation of CBEC as an entry mode. Indeed, Macchion *et al.* (2017) found that the adoption of e-commerce tools could have a negative impact when applied at the international level, particularly when considering operational innovation practices. Future studies can examine the mechanism of the relationship between digital platform use and innovation output based on cross-country samples. For instance, does the application of digital platforms in foreign expansion influence absorptive capacity, which, in turn, will affect internationalisation outcomes? Does the negative effect of e-commerce in Macchion *et al.*'s (2017) study stem from resource dispersion according to TCT? Looking ahead, numerous challenges must be addressed, all of which represent a wide array of significant issues that warrant our attention.

As explored earlier, Internet capabilities – that is, platform and web capabilities – can enhance export performance (Jean and Kim, 2020). However, export marketing

capability and export marketing efficiencies may not be the only mediators in the relationship between Internet capability and export performance. Furthermore, how firms leverage their investments to create valuable IT-enabled resources and firm-specific capabilities will contribute to determining a firm's overall success (Zhu and Kraemer, 2002). Accordingly, other mediators could be considered as directions for future research. For example, digital platform capability, as one element of digitalisation capability, allows firms to take advantage of the functions of digital platforms, such as matching and communication. This may support the development of dynamic capabilities (e.g. network capability), leading to positive customer recognition and mitigating information asymmetry, and resulting in successful entry into foreign markets. In addition, participating in CBEC requires organisational capabilities, especially e-commerce marketing capabilities that typically evolve from a firm's learning experiences in dealing with foreign markets (Eduardsen *et al.*, 2023). Exploring how digital platforms impact other higher-order capabilities and, as a result, improve internationalisation outcomes may be a fruitful direction for future research.

Digital platforms serve not only as a means for rapid internationalisation but also as a novel and supplementary distribution channel. A particular entry decision cannot be viewed in isolation. Thus, drawing on a combination of TCT and other frameworks, such as the eclectic paradigm, future research should help to compare e-commerce entry modes with other offline entry mode options. This would help investigate the drivers of entry mode strategies and reveal the mechanisms between them. For example, firms can export through digital platforms within traditional entry mode categories, and yet

internationalisation through these platforms can also constitute a non-traditional entry mode. This falls under the categories of virtual presence or managed ecosystems, according to the framework put forward by Brouthers *et al.* (2022). We encourage future scholars to clarify the difference between CBEC's non-traditional entry modes and exporting through digital platforms, either by combining existing theories or by developing a new theoretical framework. Moreover, future research is encouraged to ascertain whether the online sales channel functions more effectively as a substitute for or as a complement to a physical presence in foreign markets, and to explore the development of synergies between these sales channels (Tolstoy *et al.*, 2016). Additionally, a company might initially opt for utilising its own online store with direct deliveries to international customers before adopting an online intermediary (Witek-Hajduk *et al.*, 2022). Further to this, the adoption of CBEC could either precede conventional offline methods of foreign expansion or be incorporated as one of the strategies following offline distribution (Witek-Hajduk *et al.*, 2022).

5.3 Moderators of digital platform use in internationalisation

Despite decades of research on the use of digital platforms in internationalisation, scholars have largely overlooked individual-level moderators. While previous studies have identified various managerial characteristics as predictors of digital platform use – such as the employment of e-commerce managers (Elia *et al.*, 2021), as well as management perceptions of digital platform effectiveness (Moini and Tesar, 2005) – these factors have not been examined as conditions for other relationships. Moreover, from a capability perspective, management resources and capabilities (including

platform-based managerial experience) play a pivotal role in the utilisation of digital platforms and internationalisation development. Future research may explore the effects of characteristics (e.g. age, gender, and nationality), CEO exchanges, experience (e.g. digital platform experience), and capabilities (e.g. platform capabilities) on digital platform use in internationalisation (e.g. entry mode choice).

How the process of internationalisation in e-commerce is influenced by company-specific and market-specific conditions (Tolstoy *et al.*, 2021) is still unclear. Under company-specific conditions, there can be both heterogeneities and homogeneities between large organisations and SMEs. Large multinationals with abundant slack resources have some buffers for overcoming these contradictions; however, most SMEs, including INVs, are less fortunate in this regard (Lee *et al.*, 2022). Although it is widely recognised that firm size is irrelevant when serving international markets electronically – for example, employing an e-commerce manager increases the propensity for undertaking digital export regardless of firm size (Elia *et al.*, 2021) – firm size has been found to negatively moderate the relationship between cross-side network interaction on digital platforms and international intensity (Liu *et al.*, 2022). Therefore, future research needs to explore different categories of internationalised organisations to compare the effects of digital platforms and their related capabilities on internationalisation. Moreover, the impact of digital platforms on the strategies of MNEs presents another interesting contrast to the study of SMEs (Jin and Hurd, 2018).

Little effort has been made to compare the effects of B2B and B2C digital platforms on internationalisation. For example, in deceptive signalling research, Deng

et al. (2021) used a B2B platform that customers/import managers may have had more experience with to triangulate sellers' accreditation from multiple information sources, compared to those in a B2C e-commerce context. Many previous studies did not even reveal the type of digital platforms that they researched, whether they were B2B or B2C third-party platforms or firms' own websites. We have thus identified a fertile area for additional research by adding platform types as moderating variables. For example, unlike B2B e-commerce, which is more globalised, B2C e-commerce is relatively unaffected by globalisation and characterised by multidomestic competition, given the heterogeneity of consumers and different national regulatory systems (Kraemer *et al.*, 2005). Further to this, because of data limitations, our study finds that current web mining data are extracted from a typical Chinese platform, DHgate. Considering the heterogeneities between Chinese platforms and platforms in other countries, the generalisability of the current findings should be re-examined in future research. Moreover, because of the differences between firm-owned websites and third-party platforms, selling through these channels yields different outcomes (Ballerini *et al.*, 2023). Future research is encouraged to delve deeper into the moderating effect of digital platform types to observe their impact on firms' penetration into foreign markets.

Regarding market-level factors, only recently have researchers turned their attention to the impact of e-commerce policy on the relationship between digital platform risk and the scope of internationalisation, as well as in mitigating environmental barriers to export for SMEs leveraging digital platforms. Given that some governments are now recognising the anticompetitive concerns and market

distortions associated with the rise of digital platforms (Singh *et al.*, 2023b), future research is encouraged to examine the moderating role of e-commerce policy. We also echo the recent call by Singh *et al.* (2023a) for further policy-level studies investigating the collaborative involvement of platforms and governmental bodies in advancing digital infrastructure development. It is worth noting that antecedents and moderators may exert direct effects on one another, which should also be tested in future research.

5.4 Outcomes of digital platform use in internationalisation

Extant research has long acknowledged that the utilisation of digital platforms impacts firm outcomes, such as innovation, as well as internationalisation outcomes, such as international sales and export performance (Karavdic and Gregory, 2005; Li *et al.*, 2022). Our review indicates that while many studies have addressed the impact of digital platform use on performance when firms internationalise, there remain important gaps that warrant future attention. Specifically, performance is a multi-dimensional construct, and yet most studies have focused on a single dimension. For example, the international performance scale created by Jean *et al.* (2020) focuses only on the scope of internationalisation. Future research could examine other types of internationalisation performance, such as internationalisation speed and rhythm, as consequences of digital platform use. For example, e-commerce firms benefit from rapid internationalisation (Swoboda and Sinning, 2022), which is supported by the role of digital platforms (Deng *et al.*, 2022); but how digital platforms facilitate internationalisation speed remains to be determined. Furthermore, the facilitating role of digital platforms in firms' internationalisation is well-researched; however,

expansion into new markets may accelerate the need for using digital platforms to manage international distribution networks, which, to date, have received limited academic attention. For example, higher globalised firms reflect higher levels of B2B e-commerce use (Kraemer *et al.*, 2005). To advance the literature on this issue, future studies should encompass more in-depth research into the reciprocal effects of digital platforms and internationalisation outcomes. Additionally, digital platforms entail a standardisation strategy; for example, some digital services tend to be highly standardised for convenience or cost reduction (Mandler *et al.*, 2021). However, in the retailing environment, online marketplace also has an advantage in satisfying customers' unique needs that cannot be met by the physical channel (Ratchford *et al.*, 2022). Current studies have not discussed standardisation vs. adaption strategy when firms go international in the digital platform environment. Future research is therefore encouraged to bridge this gap by exploring how market standardisation/adaption can be employed via digital platforms and how it differs from the physical context.

We observed that few studies in our reviewed sample considered multiple outcomes (Qi *et al.*, 2020), despite examining a variety of single outcomes. For a deeper understanding, peer researchers could further investigate this issue by considering multiple outcomes within a single study. Such an approach would enable us to identify the circumstances and mechanisms through which different factors can enhance not only firm-specific outcomes but also a diverse range of outcomes at multiple levels.

Finally, researchers should focus on exploring new outcomes. Attention should be devoted to overlooked outcomes in internationalisation, such as other types of entry

modes and post-entry dynamics. For example, future studies could expand the analysis to better understand the role of digital technologies and capabilities in fostering a propensity to internationalise. This could be through either digital export or alternative types of internationalisation ranging from offshoring and outsourcing to mergers and acquisitions (Elia *et al.*, 2021). With the lowered entry barriers that digital platforms provide, competition has intensified in the online marketplace. However, there is a dearth of research on firms' post-entry survival following market entry through digital platforms. In this connection, it is worth exploring the post-entry growth pattern of firms' internationalisation via digital platforms to understand, for example, whether this internationalisation process matches that of the incremental model.

5.5 Extending the theories

Given the existence of multiple conceptualisations of digital platforms, which hinders the development of a coherent theory in this area, there is a need to clarify the notion of conceptualisation. On the basis of our review, we observed that the theoretical discourse on firms' internationalisation through digital platforms drew heavily on RBV. In particular, the literature on digital platforms broadly uses extensions of RBV such as the capability perspective and are easy to access (Tolstoy *et al.*, 2022). Digital platforms are not inimitable resources (Tolstoy *et al.*, 2022); thus, the specific capabilities for using digital platforms and maximising the value of their resources are much more crucial. Future research in this area can invite both the extension of RBV and the incorporation of theories from other areas aimed at fostering better theoretical contributions.

A recent debate considered whether TCT can properly explain the internationalisation of enterprises through digital platforms. Brouthers *et al.* (2022) proposed four new forms of entry modes (capital access, innovation outposts, virtual presence, and the managed ecosystem) and argued that the literature dominated by TCT was unable to explain these modes. However, Hennart (2022) believes that these four non-traditional entry modes have already been satisfactorily explained by TCT. Therefore, future research is needed to clarify this issue.

In addition, the existing literature represents a significant, albeit fragmented, area of research within the field of IB. Considering the importance of digital platforms in the internationalisation of firms, there are immense opportunities for scholars to adopt theoretical perspectives rooted in the IB literature to explore and examine the determinants, boundary conditions, and outcomes of digital platform use.

5.6 Broader geographical coverage

To date, most studies have focused on single countries, with a few exceptions in European regions. China is the most studied country, thereby limiting the generalisability of the research. Future research could extend and replicate the results of studies centred on China to other emerging countries (Jean *et al.*, 2020) or advanced markets. Specifically, firms from other advanced countries with different institutional backgrounds, such as the US and the UK, may exhibit unique characteristics and implications in terms of digital experience (Lee *et al.*, 2022). Exporters can leverage industrial clustering and outsource a degree of manufacturing capacity to maintain high-speed internationalisation driven by the global exposure of digital platforms (Deng *et*

al., 2022). Benmamoun *et al.* (2019) suggested that future studies focusing on the empirical testing of the OLI framework in a global e-commerce context, and using quantitative data spanning several countries, could potentially offer greater insights and allow for more generalisable conclusions. Furthermore, researchers should examine subnational variations in emerging economies in light of significant within-country diversity. A comparative analysis of subnational regions within a single country, or even across multiple countries, has the potential to provide valuable research insights.

5.7 Broadening industrial contexts

Our review shows that most studies in our sample focused on the manufacturing industry. Some industries, such as those producing food and beverage products, were highly standardised and, as such, did not require intense interactions between exporters and customers (Cassia and Magno, 2022). Other industries appeared to be diversified. Thus, research is likely to benefit from studies that extend the industry context and establish the generalisability and external validity among different industries. Furthermore, comparisons with other countries and industries could help us to better understand similarities and differences regarding the relationship of e-commerce with performance (Macchion *et al.*, 2017).

5.8 Broadening the diversity of research methods

A substantial proportion of the studies in our review sample employed quantitative methods, predominantly involving survey techniques. This presents an opportunity for researchers to transition from individual, survey-based data collection to more comprehensive and improved time-series panel data. For instance, Singh *et al.* (2023b)

suggested testing their ideas by collecting survey-based data from a large number of firms, as well as utilising secondary data. Tolstoy *et al.* (2022) recommended that explorative case-study research would be useful to unravel the details and micro-foundations of ambidextrous e-commerce processes.

Longitudinal studies employing experimental designs are also suggested, as these can enhance causal relationships under study and investigate the dynamic processes of digital platform use in firms' internationalisation. As summarised above, firms that have higher EO are likely to seize internationalisation opportunities via active internationalisation websites (Ipsmiller *et al.*, 2022). Meanwhile, Pan *et al.* (2022) demonstrated that entering foreign markets via CBEC enhanced EO in SMEs. Therefore, a longitudinal method will be effective in assessing the causal path of the relationship between EO and digital platform use in firms' internationalisation. In addition, it can be fruitful to adopt longitudinal studies examining the changes over this internationalisation process and to capture the long-term impact of digital platform use. Finally, longitudinal methods are also encouraged in future studies to capture the post-entry dynamics in internationalisation through digital platforms.

Another limitation of the current research on digital platform use in firms' internationalisation is measurement of variables. For example, Lee *et al.* (2022) utilised single measurement items for both foreign and domestic B2B platform use, thereby reducing the validity of their scales. Tolstoy *et al.* (2022) relied on measurement scales based on the perceptions of CEOs and senior managers. One risk of using perceptual measures is that a manager might overrate, for instance, their own company's

performance compared to other companies. Accordingly, future studies should employ more sophisticated measurement techniques or make greater use of objective data and multi-source performance ratings to yield valid estimates of the relationship between digital platforms and internationalisation.

Some studies have combined different theoretical approaches to investigate digital platform issues in the IB domain. However, little effort has been made involving more sophisticated methods, such as the multilevel approach, to test a model involving different levels of factors, such as managers' characteristics or capability at the individual level and institutional distance at the environmental level. We encourage multilevel research designs and larger sample sizes to link individual characteristics, digital platforms, firms, and contextual factors.

References:

- Aguinis, H., Dalton, D.R., Bosco, F.A., Pierce, C.A. and Dalton C.M. (2011), "Meta-analytic choices and judgment calls: implications for theory building and testing, obtained effect sizes, and scholarly impact", *Journal of Management*, Vol. 37 No. 1, pp. 5-38.
- Ahi, A.A., Sinkovics, N. and Sinkovics, R.R. (2023), "E-commerce policy and the global economy: a path to more inclusive development?", *Management International Review*, Vol. 63 No.1, pp. 27-56.
- Alarcón-del-Amo, M., Rialp-Criado, A. and Rialp-Criado, J. (2018), "Examining the impact of managerial involvement with social media on exporting firm performance", *International Business Review*, Vol. 27 No. 2, pp. 355-366.
- Andrews, D.S., Fainshmidt, S., Ambos, T. and Haensel K. (2022), "The attention-based view and the multinational corporation: review and research agenda", *Journal of World Business*, Vol. 57 No. 2, 101302.
- Ballerini, J., Herhausen, D. and Ferraris, A. (2023), "How commitment and platform adoption drive the e-commerce performance of SMEs: a mixed-method inquiry into e-commerce affordances", *International Journal of Information Management*, Vol. 72, 102649.
- Barney, J. (1991), "Firm resources and sustained competitive advantage", *Journal of Management*, Vol. 17 No. 1, pp. 99-120.
- Batsakis, G., Konara, P. and Theoharakis, V. (2023), "Digital sales channels and the relationship between product and international diversification: evidence from going digital retail MNEs", *Global Strategy Journal*, Vol. 13 No. 4, pp. 830-856.
- Benmamoun, M., Singh, N., Lehnert, K. and Lee, S.B. (2019), "Internationalization of e-commerce corporations (ECCs): advanced vs emerging markets ECCs", *Multinational Business Review*, Vol. 27 No. 4, pp. 317-338.
- Bergh, D.D., Ketchen, D.J., Orlandi, I., Heugens, P.P.M.A.R. and Boyd, B.K. (2019), "Information asymmetry in management research: past accomplishments and future opportunities", *Journal of Management*, Vol. 45 No. 1, pp. 122-158.
- Brouthers, K.D., Chen, L., Li, S. and Shaheer, N. (2022), "Charting new courses to enter foreign markets: conceptualization, theoretical framework, and research directions on non-traditional entry modes", *Journal of International Business Studies*, Vol. 53 No. 9, pp. 2088-2115.
- Caputo, F., Fiano, F., Riso, T., Romano, M. and Maalaoui, A. (2022), "Digital platforms and international performance of Italian SMEs: an exploitation-based overview", *International Marketing Review*, Vol. 39 No. 3, pp. 568-585.
- Cassia, F. and Magno, F. (2022), "Cross-border e-commerce as a foreign market entry mode among SMEs: the relationship between export capabilities and performance", *Review of International Business and Strategy*, Vol. 32 No. 2, pp. 267-283.
- Cha, H., Kotabe, M. and Wu, J. (2023). "Reshaping internationalization strategy and control for global e-commerce and digital transactions: a Hayekian perspective", *Management International Review*, Vol. 63 No. 1, pp. 161-192.
- Christofí, M., Pereira, V., Vrontis, D., Tarba, S. and Thrassou, A. (2021), "Agility and flexibility in international business research: a comprehensive review and future research directions", *Journal of World Business*, Vol. 56 No. 3, 101194.

- Cumming, D., Johan, S., Khan, Z. and Meyer, M. (2023), "E-Commerce policy and international business", *Management International Review*, Vol. 63 No. 1, pp. 3-25.
- Cusumano, M.A., Gawer, A. and Yoffie, D.B. (2019), *The business of platforms: strategy in the age of digital competition, innovation, and power*, Harper Collins, New York, NY.
- Das, A. (2023), "Developing dynamic digital capabilities in micro-multinationals through platform ecosystems: assessing the role of trust in algorithmic smart contracts", *Journal of International Entrepreneurship*, Vol. 21, pp. 157-179.
- Deng, Z. and Wang, Z. (2016), "Early-mover advantages at cross-border business-to-business e-commerce portals", *Journal of Business Research*, Vol. 69 No. 12, pp. 6002-6011.
- Deng, Z., Liesch, P.W. and Wang, Z. (2021), "Deceptive signaling on globalized digital platforms: institutional hypnosis and firm internationalization", *Journal of International Business Studies*, Vol. 52, pp. 1096-1120.
- Deng, Z., Zhu, Z., Johanson, M. and Hilmersson, M. (2022), "Rapid internationalization and exit of exporters: the role of digital platforms", *International Business Review*, Vol. 31 No. 1, 101896.
- Du, Y., Cui, M. and Su, J. (2018), "Implementation processes of online and offline channel conflict management strategies in manufacturing enterprises: a resource orchestration perspective", *International Journal of Information Management*, No. 39, pp. 136-145.
- Dunning, J.H. and Wymbs, C. (2001), "The challenge of electronic markets for international business theory", *International Journal of the Economics of Business*, Vol. 8 No. 2, pp. 273-301.
- Duriau, V.J., Reger, R.K. and Pfarrer, M.D. (2007), "A content analysis of the content analysis literature in organization studies: research themes, data sources, and methodological refinements", *Organizational Research Methods*, Vol. 10 No. 1, pp. 5-34.
- Eduardsen, J., Marinova, S., Leonidou, L.C. and Christodoulides, P. (2023), "Organizational influences and performance impact of cross-border e-commerce barriers: the moderating role of home country digital infrastructure and foreign market internet penetration", *Management International Review*, Vol. 63 No. 3, pp. 433-467.
- Ekeledo, I. and Sivakumar, K. (2004), "The impact of e-commerce on entry-mode strategies of service firms: a conceptual framework and research propositions", *Journal of International Marketing*, Vol. 12 No. 4, pp. 46-70.
- Elia, S., Giuffrida, M., Mariani, M.M. and Bresciani, S. (2021), "Resources and digital export: an RBV perspective on the role of digital technologies and capabilities in cross-border e-commerce", *Journal of Business Research*, Vol. 132, pp. 158-169.
- Evans, D.S. and Schmalensee, R. (2016), *Matchmakers: the new economics of multisided platforms*. Harvard Business Review Press, Boston.
- Fan, J., Tang, L., Zhu, W. and Zou, B. (2018), "The Alibaba effect: spatial consumption inequality and the welfare gains from e-commerce", *Journal of International Economics*, Vol. 114, pp. 203-220.
- Fan, Z., Wang, Y. and Ying, Z. (2023), "Empowerment of cross-border e-commerce platforms for small and medium-sized enterprises: evidence from China", *Journal of Business-to-Business Marketing*, Vol. 30 No. 1, pp. 33-44.

- Fariselli, P., Oughton, C., Picory, C. and Sugden, R. (1999), "Electronic commerce and the future for SMEs in a global market-place: networking and public policies", *Small Business Economics*, Vol. 12, pp. 261-275.
- Feliciano-Cestero, M.M., Ameen, N., Kotabe, M., Paul J. and Signoret, M. (2023), "Is digital transformation threatened? A systematic literature review of the factors influencing firms' digital transformation and internationalization", *Journal of Business Research*, Vol. 157, 113546.
- Foscht, T., Swoboda, B. and Morschett, D. (2006), "Electronic commerce-based internationalisation of small, niche-oriented retailing companies: the case of Blue Tomato and the Snowboard industry", *International Journal of Retail and Distribution Management*, Vol. 34 No. 7, pp. 556-572.
- Gaur, A. and Kumar, M. (2018), "A systematic approach to conducting review studies: an assessment of content analysis in 25 years of IB research", *Journal of World Business*, Vol. 53 No. 2, pp. 280-289.
- Gawer, A. (2021), "Digital platforms' boundaries: the interplay of firm scope, platform sides, and digital interfaces", *Long Range Planning*, Vol. 54 No. 5, 102045.
- Ghemawat, P. (2001), "Distance still matters: the hard reality of global expansion", *Harvard business review*, Vol. 79 No. 8, pp. 137-147.
- Glavas, C., Mathews, S. and Russell-Bennett, R. (2019), "Knowledge acquisition via internet-enabled platforms: examining incrementally and non-incrementally internationalizing SMEs", *International Marketing Review*, Vol. 36 No. 1, pp. 74-107.
- Goncalves, M. and Cornelius Smith, E. (2017), "Internationalization strategies of frontier Lusophone-African multinational enterprises: comparative case studies of Angola and Mozambique", *Journal of Transnational Management*, Vol. 22 No. 3, pp. 203-232.
- Grant, R.M. and Bakhru, A. (2004), "The limitations of internationalisation in e-commerce", *European Business Journal*, Vol. 16 No. 3, pp. 95-104.
- Gregory, G., Karavdic, M. and Zou, S. (2007), "The effects of e-commerce drivers on export marketing strategy", *Journal of International Marketing*, Vol. 15 No. 2, pp. 30-57.
- Gregory, G.D., Ngo, L.V. and Karavdic, M. (2019), "Developing e-commerce marketing capabilities and efficiencies for enhanced performance in business-to-business export ventures", *Industrial Marketing Management*, Vol. 78, pp. 146-157.
- Hair, J.F., Black, W.C., Babin, B.J. and Anderson, R.E. (2009), *Multivariate data analysis: a global perspective*, Pearson Education, Upper Saddle River, NJ.
- Harzing, A.-W. (2007), "Harzing's Publish or Perish", available at: <https://harzing.com/resources/publish-or-perish> (accessed 20 May 2023).
- Hennart, J.F. (2022), "How much is new in Brouthers et al.'s new foreign entry modes, and do they challenge the transaction cost theory of entry mode choice?", *Journal of International Business Studies*, Vol. 53 No. 9, pp. 2116-2132.
- Hiebl, M.R. (2021), "Sample selection in systematic literature reviews of management research", *Organizational Research Methods*, Vol. 26 No. 2, pp. 229-261.

- Hossain, M.I., Azam, M.S. and Quaddus, M. (2021), "Small firm entry to e-marketplace for market expansion and internationalization: a theoretical perspective", *Journal of International Entrepreneurship*, Vol. 19 No. 4, pp. 560-590.
- Houghton, K.A. and Winklhofer, H. (2004), "The effect of website and e-commerce adoption on the relationship between SMEs and their export intermediaries", *International small business journal*, Vol. 22 No. 4, pp. 369-388.
- Ipsmiller, E., Dikova, D. and Brouthers, K.D. (2022), "Digital internationalization of traditional firms: virtual presence and entrepreneurial orientation", *Journal of International Management*, Vol. 28 No. 4, 100940.
- Hu, L., Galli, M. and Sebastiani, R. (2023), "How digital platforms affect the internationalisation of wine firms in China", *International Journal of Retail & Distribution Management*, doi: 10.1108/IJRDM-11-2022-0438 (In press).
- Jean, R.-J.B. and Kim, D. (2020), "Internet and SMEs' internationalization: the role of platform and website", *Journal of International Management*, Vol. 26 No. 1, 100690.
- Jean, R.-J.B., Kim, D. and Cavusgil, E. (2020), "Antecedents and outcomes of digital platform risk for international new ventures' internationalization", *Journal of World Business*, Vol. 55 No. 1, 101021.
- Jean, R.-J.B., Kim, D., Zhou, K.Z. and Cavusgil, S.T. (2021), "E-platform use and exporting in the context of Alibaba: a signaling theory perspective", *Journal of International Business Studies*, Vol. 52, pp. 1501-1528.
- Jin, H. and Hurd, F. (2018), "Exploring the impact of digital platforms on SME internationalization: New Zealand SMEs use of the Alibaba platform for Chinese market entry", *Journal of Asia-Pacific Business*, Vol. 19 No. 2, pp. 72-95.
- Karakaya, F. and Stahl, M.J. (2009), "After market entry barriers in e-commerce markets", *Journal of Electronic Commerce Research*, Vol. 10 No. 3, pp. 130-143.
- Karavdic, M. and Gregory, G. (2005), "Integrating e-commerce into existing export marketing theories: a contingency model", *Marketing Theory*, Vol. 5 No. 1, pp. 75-104.
- Kauppi, K., Salmi, A. and You, W. (2018), "Sourcing from Africa: a systematic review and a research agenda", *International Journal of Management Reviews*, Vol. 20 No. 2, pp. 627-650.
- Knight, G.A. and Kim, D. (2009), "International business competence and the contemporary firm", *Journal of International Business Studies*, Vol. 40, pp. 255-273.
- Kraemer, K.L., Gibbs, J. and Dedrick, J. (2005), "Impacts of globalization on e-commerce use and firm performance: a cross-country investigation", *The Information Society*, Vol. 21 No. 5, pp. 323-340.
- Kromidha, E. and Robson, P.J. (2021), "The role of digital presence and investment network signals on the internationalisation of small firms", *International Small Business Journal*, Vol. 39 No. 2, pp. 109-129.
- Lee, J.Y., Yang, Y.S. and Ghauri, P.N. (2023), "E-commerce policy environment, digital platform, and internationalization of Chinese new ventures: the moderating effects of Covid-19 pandemic", *Management International Review*, Vol. 63 No. 1, pp. 57-90.

- Lee, J.Y., Yang, Y.S., Ghauri, P.N. and Park, B.I. (2022), “The impact of social media and digital platforms experience on SME international orientation: the moderating role of COVID-19 Pandemic”, *Journal of International Management*, Vol. 28 No. 4, 100950.
- Li, J., Chen, L., Yi, J., Mao, J. and Liao, J. (2019), “Ecosystem-specific advantages in international digital commerce” *Journal of International Business Studies*, Vol. 50, pp. 1448-1463.
- Li, J., Pan, Y., Yang, Y. and Tse, C.H. (2022), “Digital platform attention and international sales: an attention-based view”, *Journal of International Business Studies*, Vol. 53 No. 8, pp. 1817-1835.
- Liu, Y., Chen, D.Q. and Gao, W. (2020), “How does customer orientation (in)congruence affect B2B electronic commerce platform firms’ performance?”, *Industrial Marketing Management*, Vol. 87, pp. 18-30.
- Liu, Y., Wu, A. and Song, D. (2022), “Exploring the impact of cross-side network interaction on digital platforms on internationalization of manufacturing firms”, *Journal of International Management*, Vol. 28 No. 4, 100954.
- Luo, L., Ma, X. and Wang, Z. (2022), “The moderate-reputation trap: evidence from a Chinese cross-border business-to-business e-commerce portal”, *Asia Pacific Journal of Management*, Vol. 39 No. 2, pp. 395-432.
- Luo, Y. (2021), “New OLI advantages in digital globalization”, *International Business Review*, Vol. 30 No. 2, 101797.
- Macchion, L., Moretto, A.M., Caniato, F., Caridi, M., Danese, P. and Vinelli, A. (2017), “International e-commerce for fashion products: what is the relationship with performance?”, *International Journal of Retail & Distribution Management*, Vol. 45 No. 9, pp. 1011-1031.
- Makrides, A., Kvasova, O., Thrassou, A., Hadjielias, E. and Ferraris, A. (2022), “Consumer cosmopolitanism in international marketing research: a systematic review and future research agenda”, *International Marketing Review*, Vol. 39 No. 5, pp. 1151-1181.
- Mandler, T., Sezen, B., Chen, J. and Özsoy, A. (2021), “Performance consequences of marketing standardization/adaptation: a systematic literature review and future research agenda”, *Journal of Business Research*, Vol. 125, pp. 416-435.
- Mayring, P. (2014), “Qualitative content analysis: theoretical foundation, basic procedures and software solution”, available at: <https://nbn-resolving.de/urn:nbn:de:0168-ssoar-395173> (accessed 2 February 2024).
- Meyer, K.E., Li, J., Brouthers, K.D. and Jean, R.J.B. (2023), “International business in the digital age: global strategies in a world of national institutions”, *Journal of International Business Studies*, Vol 54 No. 4, pp. 577-598.
- Moini, H. and Tesar, G. (2005), “The internet and internationalization of smaller manufacturing enterprises”, *Journal of Global Marketing*, Vol. 18 No. 3-4, pp. 79-94.
- Monaghan, S., Tippmann, E. and Coviello, N. (2020), “Born digitals: thoughts on their internationalization and a research agenda”, *Journal of International Business Studies*, Vol. 51 No. 1, pp. 11-22.
- Nambisan, S., Zahra, S.A. and Luo, Y. (2019), “Global platforms and ecosystems: implications for international business theories”, *Journal of International Business Studies*, Vol. 50, pp. 1464-1486.

- Neuendorf, K.A. (2017), “*The content analysis: guidebook*”, Second Edition. SAGE Publications, Inc., Thousand Oaks, California.
- Ojala, A., Evers, N. and Rialp, A. (2018), “Extending the international new venture phenomenon to digital platform providers: a longitudinal case study”, *Journal of World Business*, Vol. 53 No. 5, pp. 725-739.
- Oliveira, N., Lumineau, F. and Ariño, A. (2023), “Time in international strategic alliances: progress and prospect”, *Journal of World Business*, Vol. 58 No. 4, 101456.
- Onjewu, A.K.E., Hussain, S. and Haddoud, M.Y. (2022), “The interplay of e-commerce, resilience and exports in the context of COVID-19”, *Information Systems Frontiers*, Vol. 24 No. 4, pp. 1209-1221.
- Palmatier, R.W., Houston, M.B. and Hulland, J. (2018), “Review articles: purpose, process, and structure”, *Journal of the Academy of Marketing Science*, Vol. 46 No. 1, pp. 1-5.
- Pan, L., Fu, X. and Li, Y. (2022), “SME participation in cross-border e-commerce as an entry mode to foreign markets: a driver of innovation or not?”, *Electronic Commerce Research*, Vol. 23, pp. 2327-2356.
- Paul, J. and Criado, A.R. (2020), “The art of writing literature review: what do we know and what do we need to know?”, *International Business Review*, Vol. 29 No. 4, 101717.
- Paul, J., Lim, W.M., O’Cass, A., Hao, A.W. and Bresciani, S. (2021), “Scientific procedures and rationales for systematic literature reviews (SPAR-4-SLR)”, *International Journal of Consumer Studies*, Vol. 45 No. 4, pp. 1-16.
- Pezderka, N. and Sinkovics, R.R. (2011), “A conceptualization of e-risk perceptions and implications for small firm active online internationalization”, *International Business Review*, Vol. 20 No. 4, pp. 409-422.
- Podsakoff, P.M., MacKenzie, S.B., Bachrach, D.G. and Podsakoff, N.P. (2005), “The influence of management journals in the 1980s and 1990s”, *Strategic Management Journal*, Vol. 26 No. 5, pp. 473-488.
- Potter, W.J. and Levine-Donnerstein, D. (1999), “Rethinking validity and reliability in content analysis”, *Journal of Applied Communication Research*, Vol. 27 No. 3, pp. 258-284.
- Pool, J. (2021), “The world’s top online marketplaces 2023”, available at: <https://www.webretailer.com/b/online-marketplaces> (accessed 20 January 2024).
- Qi, X., Chan, J.H., Hu, J. and Li, Y. (2020), “Motivations for selecting cross-border e-commerce as a foreign market entry mode”, *Industrial Marketing Management*, Vol. 89, pp. 50-60.
- Ratchford, B., Soysal, G., Zentner, A. and Gauri, D.K. (2022), “Online and offline retailing: what we know and directions for future research”, *Journal of Retailing*, Vol. 98 No. 1, pp. 152-177.
- Raymond, L., Bergeron, F., Croteau, A.M. and St-Pierre, J. (2015), “Developing absorptive capacity through e-business: the case of international SMEs”, *Journal of Small Business Management*, Vol. 53, pp. 75-94.
- Rochet, J. and Tirole, J. (2006), “Two-sided markets: a progress report”, *The RAND journal of economics*, Vol. 37 No. 3, pp. 645-667.
- Scott, W.R. (2008), “Approaching adulthood: the maturing of institutional theory”, *Theory and Society*, Vol. 37 No.5, pp. 427-442.

- Shaheer, N.A. and Li, S. (2020), “The CAGE around cyberspace? How digital innovations internationalize in a virtual world”, *Journal of Business Venturing*, Vol. 35 No. 1, 105892.
- Singh, N. and Kundu, S. (2002), “Explaining the growth of e-commerce corporations (ECCs): an extension and application of the eclectic paradigm”, *Journal of International Business Studies*, Vol. 33, pp. 679-697.
- Singh, N., Munjal, S. and Kundu, S.K. (2023a), “Marketplace platforms as game changers: internationalization of smaller enterprises”, *Journal of International Management*, Vol. 29, No. 4, 101035.
- Singh, N., Munjal, S., Kundu, S. and Rangarajan, K. (2023b), “Platform-based internationalization of smaller firms: the role of government policy”, *Management International Review*, Vol. 63 No. 1, pp. 91-115.
- Sinkovics, R.R. and Sinkovics, N. (2020), “The Internet and international marketing—from trigger technology to platforms and new markets”, *International Marketing Review*, Vol. 37 No. 3, pp. 437-446.
- Swoboda, B. and Sinning, C. (2022), “Effects of internationalization rhythm and speed on e-commerce firms’ growth and the role of institutional distances”, *Management International Review*, Vol. 62 No. 2, pp. 169-201.
- Schu, M. and Morschett, D. (2017), “Foreign market selection of online retailers—a path-dependent perspective on influence factors”, *International Business Review*, Vol. 26 No. 4, pp. 710-723.
- Tenenhaus, M., Vinzi, V.E., Chatelin, Y.M. and Lauro, C. (2005), “PLS path modeling”, *Computational statistics & data analysis*, Vol. 48 No. 1, pp. 159-205.
- Tiessen, J.H., Wright, R.W. and Turner, I. (2001), “A model of e-commerce use by internationalizing SMEs”, *Journal of International management*, Vol. 7 No. 3, pp. 211-233.
- Thomas, L.D.W., Autio, E. and Gann, D.M. (2014), “Architectural leverage: putting platforms in context”, *Academy of Management Perspective*. Vol. 28 No. 2, pp. 198-219.
- Tolstoy, D., Jonsson, A. and Sharma, D.D. (2016), “The influence of a retail firm’s geographic scope of operations on its international online sales”, *International Journal of Electronic Commerce*, Vol. 20 No. 3, pp. 293-318.
- Tolstoy, D., Nordman, E.R., Hånell, S.M. and Özbek, N. (2021), “The development of international e-commerce in retail SMEs: an effectuation perspective”, *Journal of World Business*, Vol. 56 No. 3, 101165.
- Tolstoy, D., Nordman, E.R. and Vu, U. (2022), “The indirect effect of online marketing capabilities on the international performance of e-commerce SMEs”, *International Business Review*, Vol. 31 No. 3, 101946.
- Venkatesh, V. (2006), “Where to go from here? Thoughts on future directions for research on individual-level technology adoption with a focus on decision making”, *Decision Sciences*, Vol. 37 No. 4, pp. 497-518.
- Venkatesh, V. and Bala, H. (2008), “Technology acceptance model 3 and a research agenda on interventions”, *Decision Sciences*, Vol. 39 No. 2, pp. 273-315.
- Venkatesh, V., Morris, M.G., Davis, G.B. and Davis, F.D. (2003), “User acceptance of information technology: toward a unified view”, *MIS Quarterly*, Vol. 27 No. 3, pp. 425-478.

- Vrontis, D. and Christofi, M. (2021), "R&D internationalization and innovation: a systematic review, integrative framework and future research directions", *Journal of Business Research*, Vol. 128, pp. 812-823.
- Wade, M. and Hulland, J. (2004), "The resource-based view and information systems research: review, extension, and suggestions for future research", *MIS quarterly*, Vol. 28, No. 1, pp. 107-142.
- Watson IV, G.F., Weaven, S., Perkins, H., Sardana, D. and Palmatier, R.W. (2018), "International market entry strategies: relational, digital, and hybrid approaches", *Journal of International Marketing*, Vol. 26 No. 1, pp. 30-60.
- Weerawardena, J., Mort, G., Salunke, S., Knight, G. and Liesch, P. (2014). "The role of the market sub-system and the socio-technical sub-system in innovation and firm performance: a dynamic capabilities approach", *Journal of the Academy of Marketing Science*, Vol. 43, pp. 221-239.
- Williamson, O.E. (1985), *The economic institutions of capitalism: firms, markets, relational contracting*, Gabler, New York, NY.
- Witek-Hajduk, M.K., Grudecka, A.M. and Napiórkowska, A. (2022), "E-commerce in the internet-enabled foreign expansion of Polish fashion brands owned by SMEs", *Journal of Fashion Marketing and Management: an International Journal*, Vol. 26 No. 1, pp. 51-66.
- Yin, Z.H. and Choi, C.H. (2021), "The effects of China's cross-border e-commerce on its exports: a comparative analysis of goods and services trade", *Electronic Commerce Research*, Vol. 23, pp. 443-474.
- Zahoor, N., Khan, Z. and Shenkar, O. (2023), "International vertical alliances within the international business field: a systematic literature review and future research agenda", *Journal of World Business*, Vol. 58 No. 1, 101385.
- Zhu, K. and Kraemer, K.L. (2002), "E-commerce metrics for net-enhanced organizations: assessing the value of e-commerce to firm performance in the manufacturing sector", *Information Systems Research*, Vol. 13 No. 3, pp. 275-295.

Figure 1. Systematic literature review design (following Feliciano-Cestero et al., 2023).

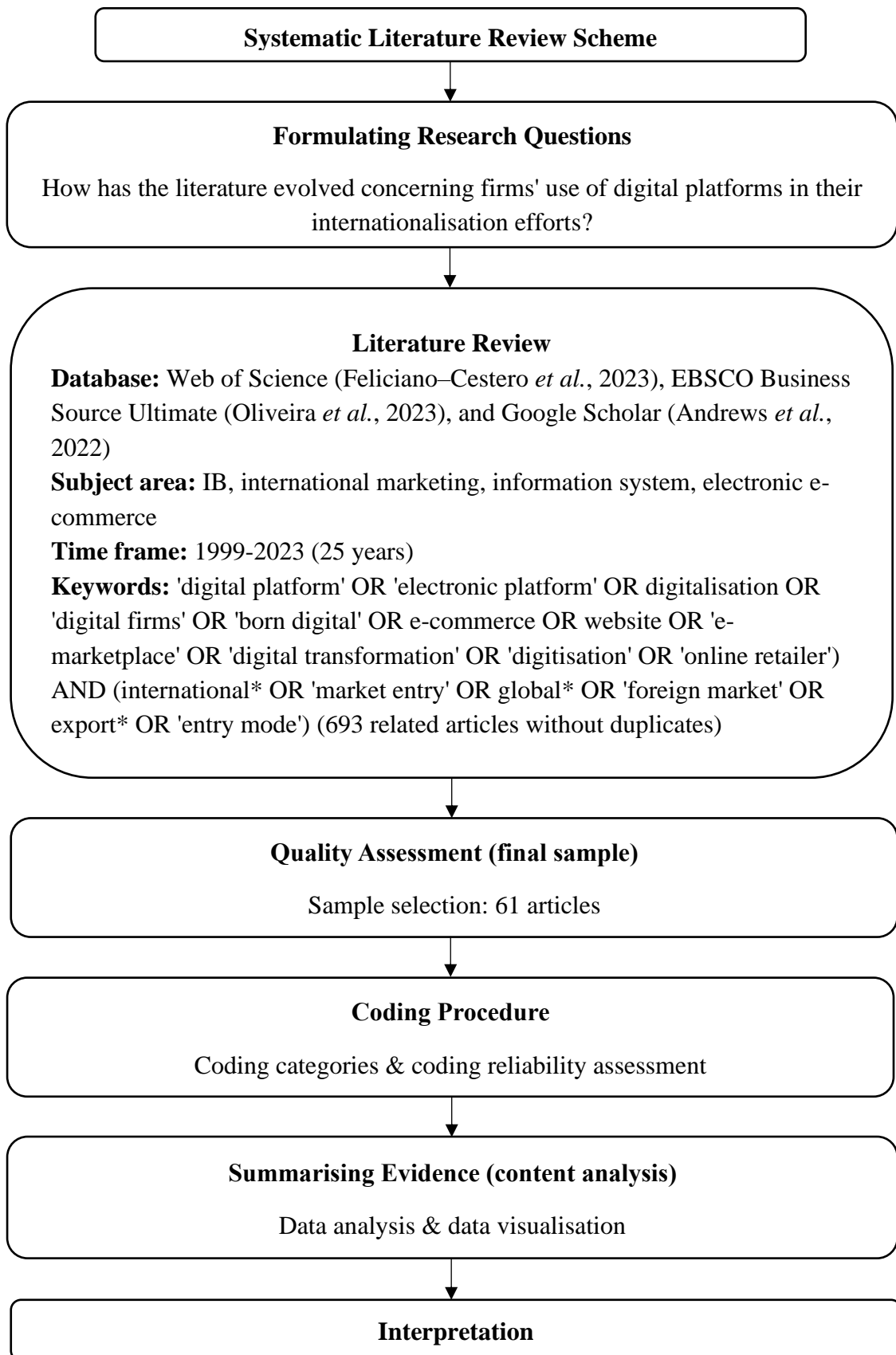


Figure 2. Number of articles and supportive theories of articles published of digital platform use in firms' internationalisation per year (omitting years with no articles published)

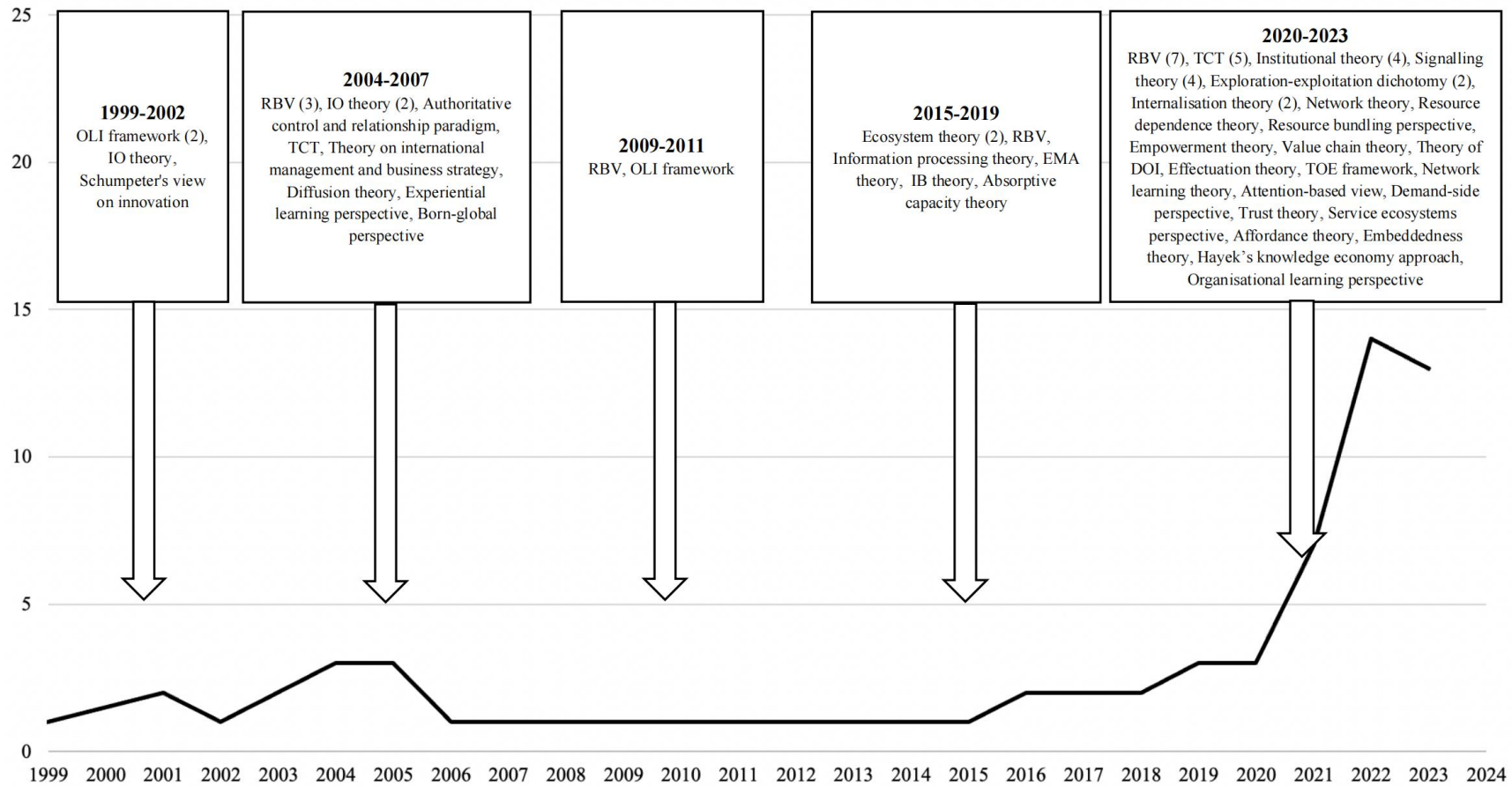
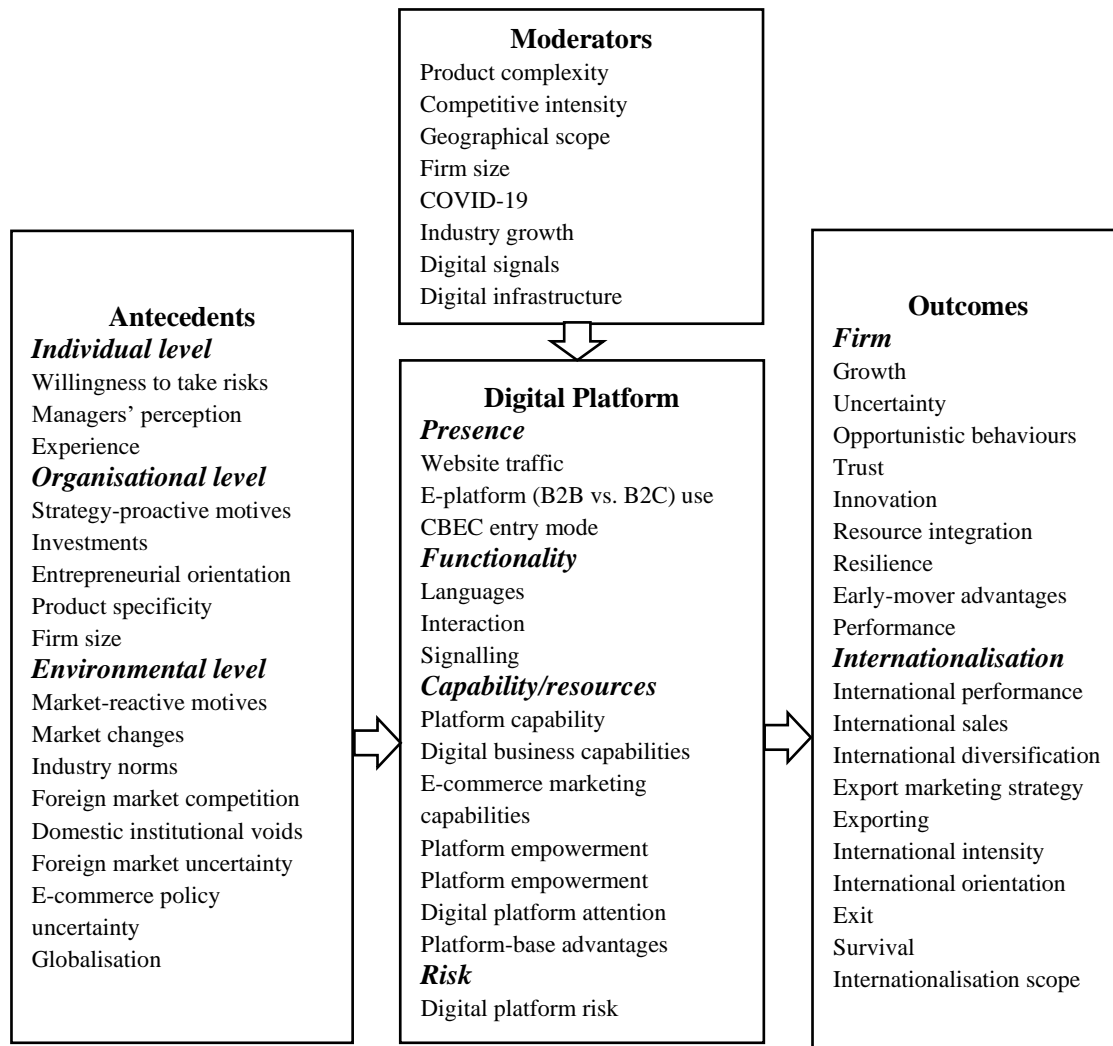


Figure 3. The integrated framework of digital platform use in firms' internationalisation derived from thematic analysis of extant literature



Notes: The variables in this framework do not necessarily mean being exhaustive. Other variables can be included in the proposed framework in the future.

Figure 4. Proposed framework for future research

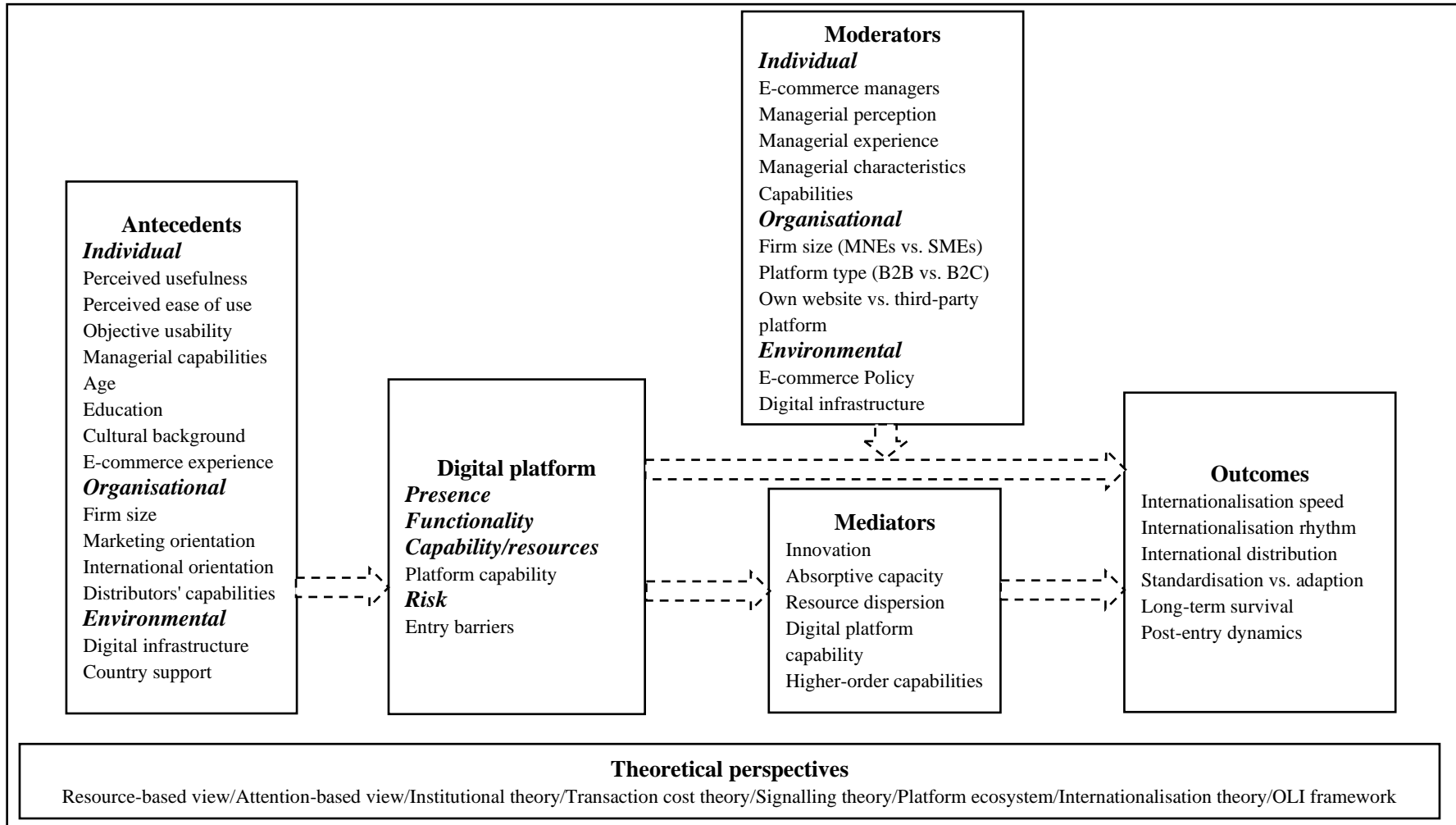


Table I Coding scheme

Parent category	Sub-categories	Explanation
Theories employed	Resource-based view (RBV)	The theories applied in the examined articles
	Transaction cost theory (TCT)	
	Institutional theory	
	Signalling theory	
	The eclectic (OLI) framework	
	Ecosystems theory	
	Exploration-exploitation dichotomy	
	Industrial organisation (IO) theory	
	Technology-organisation-environment (TOE) Framework	
	Internalisation theory	
	International business (IB) theory	
	Effectuation theory	
	Attention-based view	
	Network learning theory	
	Demand-side perspective	
	Early-mover advantages (EMA) theory	
	Empowerment theory	
	Value chain theory	
	Information processing theory	
	Hayek's knowledge economy approach	
Network theory		
Schumpeter's view on innovation		

	Experiential learning perspective	
	Organisational learning perspective	
	Trust theory	
	Born-global perspective	
	Resource dependence theory	
	Embeddedness theory	
	Authoritative control and relationship paradigm	
	Theory on international management and business strategy	
	Diffusion theory	
	Theory of diffusion of innovation (DOI)	
	Absorptive capacity theory	
	Service ecosystems theory	
	Resource bundling Theory	
	Affordance theory	
	No clear principal theory	
Year of publication		
Publication outlet	International business	
	Management	
	Marketing	
	Information system	
	Electronic commerce	
	Other areas	
Type of data	Survey data	Questionnaires, mail survey, telephone survey, online survey etc.
	Qualitative data	Case studies, in-depth interviews, semi-structured interviews etc.

	Secondary data	Archival data, panel data, secondary survey data, secondary survey data, text/web-mining data etc.
	Scholarly journals	Review papers that examine journal articles.
	Not available	Pure conceptual papers that do not involve data.
Analytical methods	Regression analysis	
	Structural equation model (SEM)	
	Ordinary least squares regression (OLS)	
	Content analysis	
	Partial least squares (PLS) Structural equation modelling	
	Partial least squares (PLS)	
	Fuzzy-set qualitative comparative analysis (fsQCA)	
	Mediation analysis	
	Binomial logistic regression	
	Logistic regression	
	Cox proportional hazard model	
	One-way ANOVA	
	Panel regression	
	GMM modelling	
	OLS path analysis	
	Robust path analysis	
	Moderated regression analysis (MRA)	
	Generalised least square (GLS) panel data model	
Moderation analysis		
Thematic analysis		

	Two stage least squares (2SLS IV) model	
	Not available	
Geographic coverage (home country)	China	
	Italy	
	Sweden	
	Austria	
	India	
	Canada	
	Australia	
	New Zealand	
	Japan	
	Poland	
	US	
	Africa	
	Bangladesh	
	Multiple	Involve more than one home country
Not available	Did not mention the home country information	
Type of interpretation	Qualitative	Interpretative inquiry, e.g., case study approach, discourse analysis, descriptive studies.
	Quantitative	Post-positivist inquiry using statistical techniques.
	Mixed	
	Conceptual	
Industry	Manufacturing	
	Retailing	
	Hospitality	

	Tourism	
	Fashion	
	Food and beverage	
	Wine	
	Multiple	
	Not available	
Research Themes (for conceptual papers)	Impact of e-commerce as an entry mode	
	Revaluation of theories in digital platform use in firms' internationalisation	
	E-commerce policy	
	Global platforms and ecosystems	
	Digital platform risk	
Antecedents of digital platform use (for empirical papers)	Individual-level	Willingness to undertake risk, perceptions of the effectiveness etc.
	Organisation-level	Strategic-proactive motives, substantial investments, entrepreneurial orientation, firm sizes etc.
	Environment-level	Market-reactive motives, market changes and industry norms, foreign market competition, domestic institutional voids, and foreign market uncertainty, e-commerce policy uncertainties etc.
	Not available	
Elements of digital platform use (for empirical papers)	Presence of digital platforms	Simple usage or selecting e-commerce as a foreign entry mode.
	Functionality of digital platforms	The functions that digital platforms provide, such as the languages, the interaction function or the signalling function.
	Capabilities/resources of digital platform use	The capabilities and resources related to the use of digital platforms, such as platform capability, digital business capabilities, e-commerce marketing capabilities etc.

	Digital platform risk	Risks or threats when firms participating in digital platform when internationalising.
Outcomes of digital platform use (for empirical papers)	Firm outcomes	Firms' growth, firm performance, uncertainties and opportunistic behaviours reduction, trust, innovation, digital transformation, resilience, and early-mover advantages etc.
	Internationalisation outcomes	International performance, international sales, export marketing strategy, exporting, international intensity, international orientation, exit, export intermediaries, internationalisation scope etc.
	Not available	

Table II Theoretical approaches used in digital platform use in firms' internationalisation built by this study

Theory	Number of studies	Authors
RBV	12	Ekeledo and Sivakumar (2004); Karavdic and Gregory (2005); Gregory <i>et al.</i> (2007); Karavdic and Stahl (2009); Gregory <i>et al.</i> (2019); Jean and Kim (2020); Elia <i>et al.</i> (2021); Cassia and Magno (2022); Luo <i>et al.</i> (2022); Tolstoy <i>et al.</i> (2022); Cumming <i>et al.</i> (2023); Eduardsen <i>et al.</i> (2023)
TCT	6	Karavdic and Gregory (2005); Jean <i>et al.</i> (2020); Qi <i>et al.</i> (2020); Deng <i>et al.</i> (2022); Hennart (2022); Pan <i>et al.</i> (2022)
Institutional theory	4	Cumming <i>et al.</i> (2023); Eduardse <i>et al.</i> (2023); Lee <i>et al.</i> (2023); Singh <i>et al.</i> (2023b)
Signalling theory	4	Deng <i>et al.</i> (2021); Jean <i>et al.</i> (2021); Kromidha and Robson (2021); Luo <i>et al.</i> (2022)
OLI framework	3	Dunning and Wymbs (2001); Singh and Kundu (2002); Pezderka and Sinkovics (2011)
IO theory	3	Tiessen <i>et al.</i> (2001); Karavdic and Gregory (2005); Gregory <i>et al.</i> (2007)
Ecosystems theory	2	Chen <i>et al.</i> (2019); Nambisan <i>et al.</i> (2019)
Exploration-exploitation dichotomy	2	Brouthers <i>et al.</i> (2022); Caputo <i>et al.</i> (2022)
Internalisation theory	2	Cumming <i>et al.</i> (2023); Singh <i>et al.</i> (2023a)
TOE Framework	1	Hossain <i>et al.</i> (2021)
IB theory	1	Tolstoy <i>et al.</i> (2016)
Effectuation theory	1	Tolstoy <i>et al.</i> (2021)
Attention-based view	1	Li <i>et al.</i> (2022)
Network learning theory	1	Lee <i>et al.</i> (2022)
Demand-side perspective	1	Liu <i>et al.</i> (2022)
EMA theory	1	Deng and Wang (2016)
Empowerment theory	1	Fan <i>et al.</i> (2023)
Value chain theory	1	Fan <i>et al.</i> (2023)
Information processing theory	1	Raymond <i>et al.</i> (2015)
Hayek's knowledge economy approach	1	Cha <i>et al.</i> (2023)
Schumpeter's view on innovation	1	Tiessen <i>et al.</i> (2001)
Network theory	1	Cumming <i>et al.</i> (2023)
Experiential learning perspective	1	Foscht <i>et al.</i> (2006)
Organisational learning perspective	1	Deng <i>et al.</i> (2022)
Trust theory	1	Pan <i>et al.</i> (2022)
Born-global perspective	1	Foscht <i>et al.</i> (2006)
Resource dependence theory	1	Cumming <i>et al.</i> (2023)

Embeddedness theory	1	Brouthers <i>et al.</i> (2022)
Authoritative control and relationship paradigm	1	Houghton and Winklhofer (2004)
International management and business strategy	1	Kraemer <i>et al.</i> (2005)
Diffusion theory	1	Kraemer <i>et al.</i> (2005)
Theory of DOI	1	Hossain <i>et al.</i> (2021)
Absorptive capacity theory	1	Raymond <i>et al.</i> (2015)
Service ecosystems perspective	1	Hu <i>et al.</i> (2023)
Resource bundling theory	1	Batsakis <i>et al.</i> (2023)
Affordance theory	1	Ballerini <i>et al.</i> (2023)
No clear principal theory	12	/

Table III Statistical methodology used in studies of digital platform use in firms' internationalisation built by this study

Analysis	Number of studies	Authors
Regression analysis	6	Tolstoy <i>et al.</i> (2016); Macchion <i>et al.</i> (2017); Elia <i>et al.</i> (2021); Fan <i>et al.</i> (2022); Lee <i>et al.</i> (2022); Tolstoy <i>et al.</i> (2022)
SEM	5	Karakaya and Stahl (2009); Caputo <i>et al.</i> (2022); Eduardsen <i>et al.</i> (2023); Lee <i>et al.</i> (2023); Ballerini <i>et al.</i> (2023)
OLS regression	3	Kraemer <i>et al.</i> (2005); Moini and Tesar (2005); Liu <i>et al.</i> (2022)
Content analysis	3	Jin and Hurd (2018); Hossain <i>et al.</i> (2021); Tolstoy <i>et al.</i> (2021)
PLS SEM	3	Raymond <i>et al.</i> (2015); Jean <i>et al.</i> (2020); Cassia and Magno (2022)
fsQCA	2	Gregory <i>et al.</i> (2019); Ballerini <i>et al.</i> (2023)
Mediation analysis	2	Jean <i>et al.</i> (2021); Tolstoy <i>et al.</i> (2022)
Binomial logistic regression	2	Moini and Tesar (2005); Ipsmiller <i>et al.</i> (2022)
GMM modelling	2	Deng <i>et al.</i> (2021); Luo <i>et al.</i> (2022)
Thematic analysis	2	Singh <i>et al.</i> (2023a); Singh <i>et al.</i> (2023b)
Cox proportional hazard model	2	Deng <i>et al.</i> (2022); Luo <i>et al.</i> (2022)
Logit regression models	1	Kromidha and Robson (2021)
One-way ANOVA	1	Moini and Tesar (2005)
Panel regression	1	Pan <i>et al.</i> (2022)
PLS	1	Jean and Kim (2020)
OLS path analysis	1	Gregory <i>et al.</i> (2019)
Robust path analysis	1	Onjewu <i>et al.</i> (2022)
MRA	1	Gregory <i>et al.</i> (2007)
GLS panel data model	1	Deng and Wang (2016)
Moderation analysis	1	Jean <i>et al.</i> (2021)
Panel-based OLS regression	1	Li <i>et al.</i> (2022)
2SLS IV model	1	Batsakis <i>et al.</i> (2023)

Table IV Top publication outlets for studies of digital platform use in firms' internationalisation built by this study

Journal name	Methodology				Total No.
	Conceptual	Empirical			
		Quantitative	Qualitative	Mixed	
Journal of International Business Studies	6	2	/	1	9
Management International Review	3	1	1	1	6
Journal of International Management	/	2	2	2	6
International Business Review	2	1	/	1	4
International Journal of Retail and Distribution Management	/	1	2	/	3
Journal of International Marketing	2	/	/	1	3
Industrial Marketing Management	/	/	1	1	2
Journal of International Entrepreneurship	1	/	1	/	2
International Small Business Journal	/	1	1	/	2
Journal of Business Research	/	2	/	/	2
Journal of World Business	/	/	1	1	2
Global Strategy Journal	/	1	/	/	1
International Marketing Review	/	1	/	/	1
Marketing Theory	1	/	/	/	1
Journal of Small Business Management	/	1	/	/	1
Journal of Asia-Pacific Business	/	/	1	/	1
Journal of Business-to-Business Marketing	/	1	/	/	1
Journal of Electronic Commerce Research	/	1	/	/	1
Journal of Fashion Marketing and Management	/	/	1	/	1
Review of International Business and Strategy	/	1	/	/	1
Small Business Economics	1	/	/	/	1
Journal of Global Marketing	/	1	/	/	1
International Journal of Electronic Commerce	/	1	/	/	1
Electronic Commerce Research	/	1	/	/	1
European Business Journal	1	/	/	/	1
International Journal of the Economics of Business	1	/	/	/	1
Information Society	/	/	/	1	1
Information Systems Frontiers	/	1	/	/	1
Journal of Transnational Management	/	/	1	/	1
International Journal of Information Management	/	/	/	1	1
Asia Pacific Journal of Management	/	1	/	/	1

Table V Total citations and average citation score built by this study

Rank	Author(s) and year published	Total citations	Rank	Author(s) and year published	Average citation score
1	Nambisan <i>et al.</i> (2019)	351	1	Nambisan <i>et al.</i> (2019)	70.2
2	Gregory <i>et al.</i> (2019)	302	2	Gregory <i>et al.</i> (2019)	60.4
3	Singh and Kundu (2002)	228	3	Tolstoy <i>et al.</i> (2021)	59
4	Tiessen <i>et al.</i> (2001)	219	4	Elia <i>et al.</i> (2021)	54.7
5	Kraemer <i>et al.</i> (2005)	184	5	Tolstoy <i>et al.</i> (2022)	53
6	Tolstoy <i>et al.</i> (2021)	177	6	Kim (2020)	34.5
7	Li <i>et al.</i> (2019)	167	7	Li <i>et al.</i> (2019)	33.4
8	Watson <i>et al.</i> (2018)	164	8	Luo (2021)	31
9	Elia <i>et al.</i> (2021)	164	9	Kim and Cavusgil (2020)	30.8
10	Gregory <i>et al.</i> (2007)	163	10	Qi <i>et al.</i> (2020)	28.3

Notes: Retrieved by Publish or Perish software (Harzing, 2007). The analysis was conducted on 10 Jan 2024.

Table VI The frequency of the location of the empirical studies built by this study

Home country	Number of articles examining
China	12
Italy	6
Sweden	3
Austria	2
India	2
Canada	2
Australia	2
New Zealand	1
Japan	1
Poland	1
USA	1
Bangladesh	1
Multiple	4
/	5

Table VII List of conceptual studies in digital platform use in firms' internationalisation built by this study

Authors	Theories	Focus	Core ideas
Fariselli <i>et al.</i> (1999)	/	The effect of e-commerce in SMEs' development in globalisation	1. It highlights the importance of network externalities, and institutional factors affecting trust and the relationships amongst different economic actors; 2. public policies are needed to facilitate the synergies in creating networks of smaller firms and stimulate the use of new technology such as e-payment.
Dunning and Wymbs (2001)	OLI framework	The eclectic paradigm of international production with its composite theories and the coming e-commerce revolution.	It is necessary to redefine the operational applications of several components and the background they consider based on some unique characteristics of internet transport.
Singh and Kundu (2002)	RBV, TCT, network theory approach	The variables affecting the growth of e-commerce corporations and extending the explanatory power of the eclectic paradigm.	By integrating network theory, transaction cost theory and resource-based view within the context of the eclectic paradigm, this study proposed a framework to indicate contextual variables (institutional environment and technological complexity) and a strategy-related element (dynamic capabilities) in the e-business environment.
Grant and Bakhru (2004)	/	The economics of e-commerce and globalisation	1. A two-by-two classification of internationalisation models according to the engagement of digital activities and need for national differentiation; 2. among these modes, multinational e-business model will be at an advantage compared with e-business companies, while regarding the other two models, these companies coexist with global players.
Ekeledo and Sivakumar (2004)	Resource-based view	The interaction of e-commerce, services marketing, and foreign market entry mode choice.	It provides an integrative conceptual framework that illustrating the impact of e-commerce on the entry mode choice of service firms with some internal and external factors moderate this relationship.
Karavdic and Gregory (2005)	A combination of IO theory, RBV, and TCT	A contingency model that integrates e-commerce into existing theories on export marketing.	1. This model proposes that e-commerce facilitates the relationship between export marketing strategy and export performance with the moderators of some e-commerce internal and external drivers; 2. integration of e-commerce into export marketing

			strategy and environmental determinants can significantly improve firms' efficiency in export business.
Pezderka and Sinkovics (2011)	Dunning's OLI framework	A combination of existing traditional international constructs and the e-business risks into a multi-dimensional framework.	Dunning's (2001) OLI framework has considerable explanatory value not only for SMEs' traditional internationalisation decisions in the physical domain, but also on the context for the international e-risk dimensions.
Watson <i>et al.</i> (2018)	/	How relational approaches to international market entry (IME) are changing in light of macro developments.	1. The development of Internet technology has prompted firms to adopt a digital or hybrid digital-relational strategy when entering new markets; 2. this review proposes three main topics that have the potential to for future research: the ubiquity of data-rich marketing environment, marketing automation and artificial intelligence.
Li <i>et al.</i> (2019)	The theory of the ecosystem	The concept of ecosystem-specific advantages and costs and difficulties in the transfer of such advantages to new markets.	1. This study proposes a framework of digital platform internationalisation with the interaction of the users, suppliers of complementary products, and platform firms; 2. this study calls for future research on the dynamic process of ecosystem-specific advantages upgrading.
Nambisan <i>et al.</i> (2019)	The dual perspectives of cross-border platforms and ecosystems	How digital platforms and ecosystems are affecting existing IB theories and promising avenues for future research to corporate DPE-related constructs.	DPEs is shaping a new dynamic context for IB theories and internationalisation, facilitating new ways of building and utilising knowledge and relationships as they are facilitating new forms of connectivity. and enabling new ways of creating and delivering value to global customers.
Luo (2021)	New OLI framework	New lens toward internationalisation advantages for multinationals in digital globalisation	1. This study proposes a new OLI framework with O (digitisation-enabled Open resource advantage), L (digitisation-enable linkage advantage) and I (digitisation-enabled integration advantage) that are complementary and coupled with traditional OLI advantages.
Brouthers <i>et al.</i> (2022)	/	Four categories of non-traditional entry modes, i.e., capital access, innovation outposts, virtual presence, and the managed ecosystem.	1. These new modes help us to classify an array of entry modes by the application of theories focusing on (1) deployment of existing of new capabilities and (2) firm 'involvement' instead of investment into foreign markets; 2. the classification of new modes may be driven by new considerations in addition to the transactional issues of

			control and cost; 3. drawing on the theoretical ideas of exploitation-exploration and local embeddedness, this study proposes a framework to categorise non-traditional entry modes.
Hennart (2022)	TCT	Brouthers <i>et al.</i> 's (2022) four novel entry modes	1. Brouthers <i>et al.</i> 's (2022) exploitation–exploration–embeddedness framework is unconvincing and the four entry modes are not the only ones that might repay further study; 2. the study on foreign market entry modes that taking a business model approach is more comprehensive.
Cha <i>et al.</i> (2023)	Hayek's knowledge economy approach	A new internationalisation theory for the sharing economy firms.	1. This study proposes a conceptual diagram on the internationalisation strategies of the sharing economy firms, focusing on location selection, entry mode, governance, and performance implications; 2. the divergence of global e-commerce policies and different internet regimes in different countries may affect the internationalisation of business models.
Cumming <i>et al.</i> (2023)	Institutional theory, internalisation theory, network theory, resource dependence theory and the dynamic capabilities perspective	An examination of the role played by e-commerce in international business, especially e-commerce policy aspect.	1. E-commerce and e-commerce policy is growing fast in IB and provide an important avenue to develop new insights and extend the understanding about cross-border international business activities; 2. this study discusses the key theoretical perspectives of e-commerce policy.
Ahi <i>et al.</i> (2023)	/	A review of e-commerce policy and the policy recommendations identified in academic articles and including policy documents.	To promote an inclusive e-commerce participation, it is imperative to design policies that improve countries' formal institutions, facilitate the inclusion of less-developed countries in the e-commerce space, and enhance e-commerce adoption by SMEs.
Meyer <i>et al.</i> (2023)	/	Three international business digital strategies: owning digital platforms, participating in digital platforms, and	This study offers a conceptual framework linking external and internal antecedents to digital business and internationalisation strategies.

		transforming traditional businesses for the digital world.	
Das (2023)	/	The important role trust plays in inter-firm relationships and smart contracts in digital platform ecosystems, specifically in the context of international entrepreneurial ventures of micro-multinationals.	This paper assesses how digital platform ecosystems provide significant advantages over traditional networked business models, and, specifically, how micro-multinationals, characterised by their limited resources, develop dynamic digital capabilities and utilise these platforms as effective vehicles for expanding businesses globally.

Table VIII. Research gaps and future research directions

Future directions and research gaps	Research question examples
<i>Antecedents of digital platform use in internationalisation</i>	
There has been a noticeable lack of emphasis in empirical studies on individual characteristics.	RQ1: How do managers' perceptions influence why and how firms seek to implement information systems technologies?
Gaps exist in our understanding of the relationship between firm size and CBEC barriers.	RQ2: What is the relationship between firm size and CBEC barriers? RQ3: What are the different types of barriers that hinder firms from utilising digital platforms for foreign expansion?
Scant research pays attention to the digital platform use in the long run after early expansion.	RQ4: What factors influence whether companies continue utilising platforms for internationalisation or transition to traditional modes? RQ5: How can firms adopt multi-channel and omnichannel marketing strategies, and adapt flexibly to changes both online and offline? RQ6: How can a balance be struck between different channels?
We still have limited knowledge about the factors that cause digital platform risk, especially at the organisational level.	RQ7: Which antecedents can contribute to digital platform risk and how?

<p>Apart from individual-level and environmental-level drivers of digital platform use, much still needs to be understood about the environmental factors that influence e-commerce utilisation.</p>	<p>RQ8: What environmental factors may motivate firms to adopt digital platforms when expanding into foreign markets?</p>
<p><i>Mediators of digital platform use in internationalisation</i></p>	
<p>Inconsistencies in the effect of CBEC as an entry mode on firms' innovation.</p>	<p>RQ9: What is the mechanism of the relationship between digital platform use and innovation output based on cross-country samples?</p> <p>RQ10: Does the application of digital platforms in foreign expansion influence absorptive capacity, which in turn affects internationalisation outcomes?</p> <p>RQ11: Does the negative effect of e-commerce in Macchion <i>et al.</i>'s (2017) study stem from resource dispersion according to transaction cost theory?</p>
<p>Export marketing capability and export marketing efficiencies may not be the only mediators in the relationship between internet capability and export performance.</p>	<p>RQ12: How does digital platform capabilities affect firms' successful entry into foreign markets?</p> <p>RQ13: How digital platforms impact other higher-order capabilities and thereby improve internationalisation outcomes?</p>
<p>Research has mostly focus on CBEC as an entry mode in isolation, overlooking that a particular entry decision cannot be viewed in isolation.</p>	<p>RQ14: What is the difference between CBEC's non-traditional entry modes and exporting through digital platforms?</p>
<p><i>Moderators of digital platform use in internationalisation</i></p>	
<p>Despite decades of research on the use of digital platforms in internationalisation, scholars have largely overlooked individual-level moderators.</p>	<p>RQ15: What are the effects of characteristics (e.g., age, gender, or nationality), experience (e.g., digital platform experience), and capabilities (i.e., platform capabilities) on digital platform use in internationalisation, such as entry mode choice?</p>
<p>Research has neglected different categories of internationalised organisations and conducted a comparison of the effects of digital platforms and their related capabilities on internationalisation.</p>	<p>RQ16: What is the difference of different categories of internationalised organisations adopting digital platform to internationalise?</p> <p>RQ17: What is the impact of digital platforms on the strategies of MNEs in the contrast to the study of SMEs?</p>
<p>Little effort has been made to compare the effects of B2B and B2C digital platforms on internationalisation.</p>	<p>RQ18: What is the moderating effect of digital platform type (e.g., B2B vs. B2C, digital platforms in different countries) on the impact of digital platforms on firms' penetration into foreign markets?</p>

Only more recently have researchers turned their attention to the impact of e-commerce policy on the relationship between digital platform risk and the scope of internationalisation.	RQ19: What is the moderating role of e-commerce policy affecting international decisions? RQ20: What is the collaborative role of platforms and governmental bodies in the development of digital infrastructure?
<i>Outcomes of digital platform use in internationalisation</i>	
Performance is a multi-dimensional construct, yet most studies focus solely on one dimension.	RQ21: What about other types of internationalisation performance, including internationalisation speed and scale, measured as outcomes by using digital platform? RQ22: How does digital platforms facilitate internationalisation speed? RQ23: What are the reciprocal effects of digital platforms and internationalisation outcomes?
Few studies in our review sample have considered multiple outcomes (Qi <i>et al.</i> , 2020) despite examining a variety of single outcomes.	RQ24: How can digital platforms influence a diverse range of outcomes?
There is a dearth of research on firms' long-term survival after entry through digital platforms as well as other types of entry modes and post-entry dynamics.	RQ25: What is the role of digital technologies and capabilities in fostering the propensity to internationalise?
<i>Extending the theories</i>	
Given the existence of multiple conceptualisations of digital platforms which hinders the development of a coherent theory in this area, there is a need for a clarification of conceptualisation.	RQ26: How can we extend RBV and incorporate theories from other areas in explaining the phenomenon of internationalisation through digital platforms? RQ27: How can we explain the selection of digital or physical sales in the international context based on TCT or in combination with other theories? RQ28: How can we utilise information on the platform to improve international sales and enhance the understanding of signaling strategy in the online environment?
<i>Broader geographical coverage</i>	
Most studies in our sample were focused on the manufacturing industry.	RQ29: How is the phenomenon of internationalisation through digital platforms be demonstrated in other industries except for manufacturing industry? RQ30: What are the effects of subnational variations in emerging economies, considering significant within-country diversity in the relationship between digital platform and firms' internationalisation outcomes?

<i>Broadening the diversity of research methods</i>	
A substantial proportion of the studies in our review sample employed quantitative methods, predominantly involving survey techniques.	RQ31: What are the details and micro-foundations of ambidextrous e-commerce processes by using explorative case-study research?
Research has rarely investigated the long-term outcomes after expansion to foreign markets via digital platforms.	RQ32: How do the relationships between digital platform and firms' internationalisation outcomes unfold over time?
Another limitation of the current research on digital platform use in firms' internationalisation is variable measurement.	RQ33: How do we measure internationalisation outcomes more sophisticatedly or make greater use of objective data and multi-source performance ratings to yield more valid estimates of the relationship between digital platforms and internationalisation?
Little effort has made on a more sophisticated method, such as the multi-level approach, to test a model involving different level of factors.	RQ34: How do we adopt multi-level research designs on larger sample size to link individuals, digital platforms, the firm and the context?

Appendix 1. List of empirical studies on digital platform use in firms' internationalisation

No.	Author /Year	Aim/Research Question(s)	Theories	Methodology	Main findings
1	Tiessen <i>et al.</i> (2001)	How are SMEs using e-commerce internationally? Why are SMEs using e-commerce to do business internationally?	IO theory and Schumpeter's view on innovation	Qualitative (Interviews: 12) Home Country: Canada Industry: hospitality/tourism and high tech Analytical method: /	This study proposes that how firms use e-commerce internationally by examining resource commitment, web function and cultural adaptation.
2	Houghton and Winklhofer (2004)	The conceptualisation of the potential effects of website and/or e-commerce adoption on conflict and the mediating effect of trust and commitment.	Authoritative control and relationship paradigm	Qualitative (Interviews: 25) Home country: / Industry: multiple Analytical method: /	The internet has both a constructive and destructive influence on channel relationships.
3	Kraemer <i>et al.</i> (2005)	A model examining the relationship between firm globalisation, scope of e-commerce use, and firm performance.	International management and business strategy and	Mixed methods (Survey: 2,139) Home country: multiple Industry: multiple Analytical method: OLS regression	Globalisation occurs first, which then creates the conditions for firms to adopt and use e-commerce; e-commerce is reinforcing rather

			diffusion theory		than transforming existing commerce patterns.
4	Moini and Tesar (2005)	Internal and external factors which had been identified by previous research to influence the internationalisation of SMEs through the Internet.	/	Quantitative (Survey: 125) Home country: US Industry: manufacturing Analytical methods: ANOVA, binomial logistic regression, discrete, OLS regression	The scope of internationalisation of SMEs through the Internet is affected by internal factors, such as managements' perceptions of the effectiveness of their web sites as a marketing tool, lack of experience, and SMEs' potential usage of the Internet.
5	Foscht <i>et al.</i> (2006)	To analyse the dynamic internationalisation process in small retailing firms, achieved on the basis of electronic commerce.	Experiential learning perspective and BGs perspective	Qualitative (Case study-interview: 1) Home country: Austria Industry: retailing Analytical method: /	The small company was able to internationalise via electronic commerce, which was possible without capital investments and in-depth foreign activities, unlike other forms of internationalisation.
6	Gregory <i>et al.</i> (2007)	How do e-commerce drivers affect export marketing strategy?	IO theory and RBV	Mixed methods (Interviews: 15; survey: 340) Home country: Australia Industry: manufacturers and service Analytical method: MRA	Internal e-commerce drivers (product online transferability and e-commerce assets) facilitate greater distribution support and improve price competitiveness for export ventures.
7	Karakaya and Stahl (2009)	Relationships among the barriers after market entry and firm performance.	RBV	Quantitative (Survey: 190) Home country: / Industry: multiple Analytical method: SEM	The e-commerce resources construct impacts firm profitability while the sustainability construct influences e-commerce resources.
8	Raymond <i>et al.</i> (2015)	To what extent are manufacturing SMEs successful in developing their absorptive	Information Processing Theory	Quantitative (Survey: 588) Home country: Canada Industry: manufacturing	E-business capabilities have a significant impact on internationalisation performance to the extent that these capabilities are

		capacity in response to the environmental uncertainty?		Analytical method: PLS SEM	developed as a response to increased environmental uncertainty.
9	Deng and Wang (2016)	Are early entrants at such platforms capable of enjoying their early entry? Can any competitive strategy help prolong the EMA?	EMA theory	Quantitative (Secondary data: 3,969) Home country: / Industry: multiple Analytical method: GLS panel data model	EMAs may diminish beyond a critical length of tenure because of the free-riding costs, resolution of technological or market uncertainty, as well as the incumbent inertia of early movers.
10	Tolstoy <i>et al.</i> (2016)	How do strategies related to the geographical scope of international operations influence the impact of online sales channel adoption on international sales for retail firms?	IB theory	Quantitative (Survey: 562) Home country: Sweden Industry: retailing Analytical method: regression analysis	Online sales channel adoption has a positive effect on international sales, which is negatively moderated by geographical export scope.
11	Goncalves and Smith (2017)	The internationalisation strategies of Lusophone Africa MNEs from Angola and Mozambique to expand the framework for entry mode strategies.	/	Qualitative (Interviews: 24) Home country: Angola and Mozambique Industry: multiple Analytical method: /	The deciding factor of choosing e-commerce as an entry mode into Spain and other Lusophone countries its cost-effectiveness in reaching those markets.
12	Macchion <i>et al.</i> (2017)	To identify the main performance metrics (i.e. business, innovation and operational performance) that e-commerce adoption provides to fashion companies.	/	Quantitative (Survey: 113) Home country: Italy Industry: fashion Analytical method: multi-step linear regression model	The adoption of e-commerce might even be negative when applied at the international level in particular by considering innovation operational practices.
13	Jin and Hurd (2018)	How are Alibaba digital platforms affecting New Zealand firms' entry strategies in China?	/	Qualitative (Interviews: 4) Home country: New Zealand Industry: / Analytical method: thematic content analysis	Digital platforms ease entry barriers to some extent, particularly in helping overcome resource constraints and facilitating access to networks.

14	Gregory <i>et al.</i> (2019)	To examine the effects of e-commerce on exporting performance.	RBV	Mixed methods (Interview: 15; survey: 340) Home country: Australia Industry: / Analytical method: OLS path analysis, fsQCA	Specialised e-commerce marketing capabilities directly increase a firm's degree of distribution and communication efficiency, which in turn leads to enhanced export venture market performance.
15	Jean and Kim (2020)	The Internet's effect on SMEs' marketing capabilities and export performance.	RBV	Mixed methods (Interview: 15; survey: 250) Home country: China Industry: / Analytical method: PLS method	Platform and web capabilities are positively related to export marketing capabilities and export performance.
16	Jean <i>et al.</i> (2020)	The risk of INVs' use of Internet's in entering international markets.	TCT	Mixed methods (Interview: 15; survey: 273) Home country: China Industry: multiple Analytical method: PSL-SEM	Antecedents of digital platform risk include product specificity, foreign market uncertainty, foreign market competition, and home market institutional voids.
17	Qi <i>et al.</i> (2020)	What are the differences between a traditional export and cross-border e-commerce export channel? What are the main motivations in selecting CBEC as a foreign market entry mode, particularly in China?	TCT	Qualitative (Case study-interview: 1) Home country: Japan Industry: skincare Analytical method: /	CBEC could reduce uncertainties and opportunistic behaviours, while increasing trust. This new entry mode also takes advantage of the involvement and the dependency of intermediaries.
18	Elia <i>et al.</i> (2021)	To what extent do the quantity and quality of firm resources influence digital export? What type of managerial capabilities play a role in digital export beyond resources?	RBV	Quantitative (Survey: 102) Home country: Italy Industry: multiple Analytical method: regression analysis	Firms leveraging digital technologies are more likely to enhance their digital export; digital capabilities are critical as firms employing an e-commerce manager have a higher propensity to undertake digital export.

19	Hossain <i>et al.</i> (2021)	The factors affecting small firms' entry to e-marketplace.	Theory of DOI and TOE Framework	Qualitative (Interview: 23) Home country: Bangladesh Industry: multiple Analytical method: content analysis	The factors affecting small firms' entry to e-marketplace are classified as technological, organisational, and environmental.
20	Jean <i>et al.</i> (2021)	How can exporters deploy E-platforms more effectively to increase their chances of being contacted by potential buyers and so secure business transactions?	Signalling theory	Mixed methods (Intervsurvey: 205) Home country: China Industry: multiple Analytical method: mediation analysis, moderation analysis	E-platform use positively affects foreign buyer contact and export sales performance. This positive effect is even more substantial when exporters originate from regions with less-developed market intermediaries.
21	Kromidha and Robson (2021)	How can digital presence and network investment signals explain the internationalisation of small firms?	Network signalling theory	Quantitative (Secondary data: 4,446) Home country: / Industry: multiple Analytical method: logit regression models	The fact that competition signals, even in the international space beyond the home market, are present and shared in a common digital environment does not seem to discourage small firms to internationalise.
22	Luo <i>et al.</i> (2022)	How does review-based online reputation influence online firm survival?	RBV and signalling theory	Quantitative (Web mining data: 3,145) Home country: China Industry: multiple Analytical methods: GMM models, Cox regression	Online reputation has a U-shaped relationship with firm survival, with the slope being negative at low levels of online reputation but positive at high levels of online reputation.
23	Tolstoy <i>et al.</i> (2021)	How can SMEs pursue new opportunities in a digital international business environment?	Effectuation theory	Qualitative (Case studies: 5) Home country: Sweden Industry: retailing Analytical method: content analysis	Marketing capabilities and digital business capabilities have a positive effect on companies' e-commerce development.

24	Deng <i>et al.</i> (2021)	How do the effects of the different types of exporter signals sent from digital platforms compare?	Signalling theory	Quantitative (Text mining: 1,136,778) Home country: China Industry: multiple Analytical method: GMM modelling	Deceptive signalling stimulates an institutional hypnosis on importers, with the most immediate and largest enhancing effects on exporter performance of the three types of signalling. Organic signalling exerts the most durable effect.
25	Caputo <i>et al.</i> (2022)	In which ways digital platforms can influence the economic performances of Italian SMEs actively engaged in foreign countries?	Exploration–exploitation dichotomy	Quantitative (Secondary data: 746) Home country: Italy Industry: / Analytical method: SEM	SME’s investment in ICT is positively related to SME’s ROS in foreign market; The number of languages available for the SME’s website and social page is positively related to SME’s ROS in foreign market.
26	Cassia and Magno (2022)	The relationship between a firm’s information technology, international marketing and export operations capabilities and its cross-border e-commerce strategic and financial performance.	RBV	Quantitative (Survey: 101) Home country: Italy Industry: food and beverage Analytical method: PLS SEM	The use of third-party e-commerce platforms reduces the effect of exporters’ information technology capabilities on their e-commerce financial performance.
27	Ipsmiller <i>et al.</i> (2022)	Does one specific element of firms' marketing program, their web presence, which has important implications on the exploitation of entrepreneurial opportunities?	/	Quantitative (Survey: 176) Home country: Austria Industry: consumer vs. industrial goods Analytical method: binomial logistic regression analysis	Firms that are more entrepreneurially orientated are more likely to capture internationalisation opportunities with active internationalisation websites.
28	Lee <i>et al.</i> (2022)	The impact of social media and digital platforms experience on SME international orientation.	Network learning theory	Mixed methods (Interviews: 32; survey: 373) Home country: China Industry: multiple	SMEs' use of foreign SNS and B2B digital platforms has a stronger positive impact on their international orientation than their use of domestic SNS and B2B digital platforms.

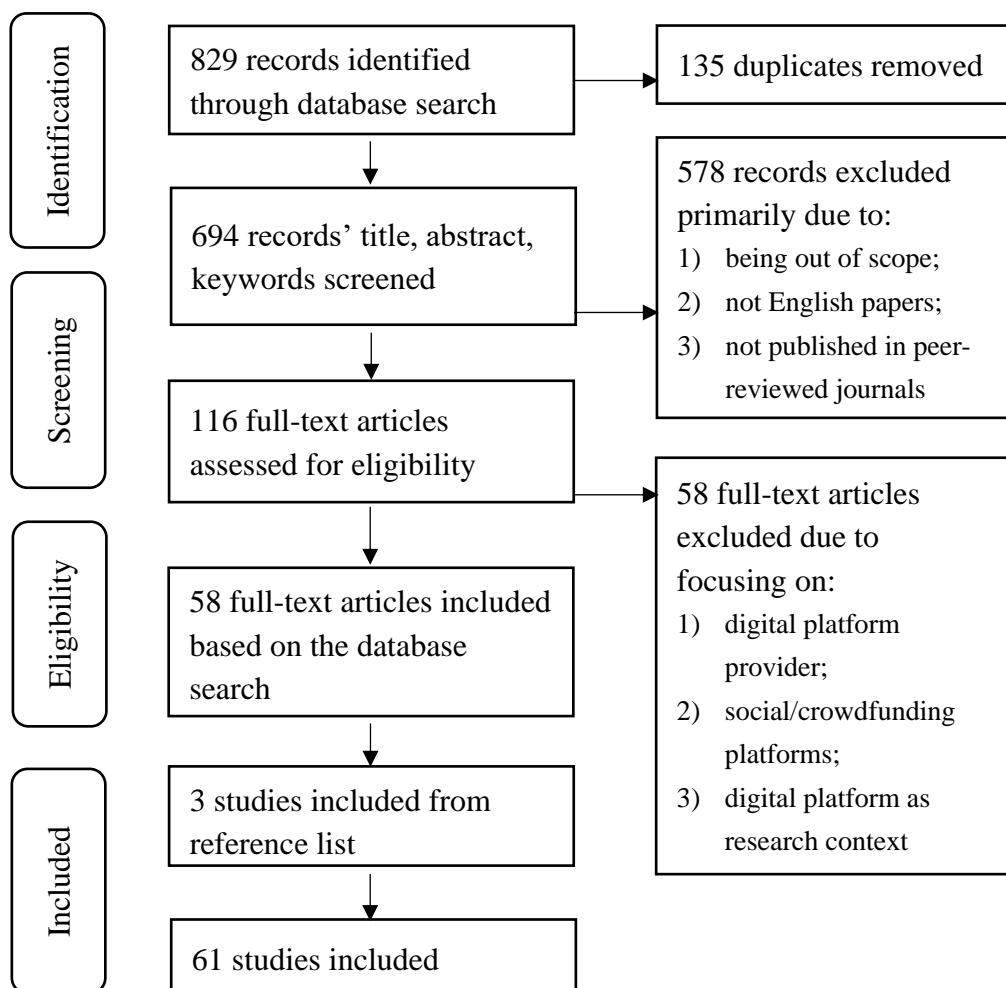
				Analytical method: regression analysis	
29	Li <i>et al.</i> (2022)	The effect of DPA by MNEs to develop and operate digital platforms.	Attention-based view	Quantitative (Secondary panel data: 2,878) Home country: China Industry: / Analytical method: panel-based OLS regression	MNEs with more intensive and persistent DPA are more effective in reaching global customers and achieving better international sales, whereas MNEs with a more diversified (i.e., scattered) DPA scope suffer from constrained international sales.
30	Liu <i>et al.</i> (2022)	How do manufacturing firms utilise the benefits of network externalities on digital platforms?	Demand-side perspectives	Quantitative (Survey: 4,197) Home country: China Industry: manufacturing Analytical method: OLS regression	Manufacturing firms' cross-side network interaction on digital platforms could improve international intensity.
31	Pan <i>et al.</i> (2022)	What are the differences between traditional export channels and CBEC? Is CBEC driving SME innovation in the same way as a traditional mode of entry or is it doing so better?	TCT and trust theory	Quantitative (Secondary data: 5,269) Home country: China Industry: multiple Analytical method: panel regression	CBEC have a direct and positive effect on market innovation; it has an indirect and positive impact on technology and process innovation by fully mediating the effects of an entrepreneurial orientation.
32	Tolstoy <i>et al.</i> (2022)	The reasons for performance variations among international e-commerce SMEs.	RBV	Quantitative (Survey: 99) Home country: Sweden Industry: / Analytical method: linear regression and mediation analysis	Online marketing capabilities are necessary but not sufficient to increase performance among these companies; marketing ambidexterity is instrumental to leverage the effect of online marketing capabilities.
33	Onjewu <i>et al.</i> (2022)	Whether e-commerce activity is independently sufficient to generate direct and indirect exporting during COVID-19,	/	Quantitative (Secondary survey data: 249) Home country: Italy Industry: manufacturing Analytical method: robust path analysis	E-commerce has a positive impact on direct exports and a negative influence on indirect exports. E-commerce significantly increases

		and the extent to which resilience plays a role in these correlations.			resilience which, in turn, accelerates direct exports.
34	Witek-Hajduk <i>et al.</i> (2022)	Ways and motives of application of e-commerce in the foreign expansion of SMEs fashion brands.	/	Qualitative (Case studies: 4) Home country: Poland Industry: / Analytical method: /	Two categories of motives for application of e-commerce in the foreign expansion of SMEs that are owners of fashion brands: market, reactive motives, and strategic, proactive motives.
35	Fan <i>et al.</i> (2022)	To deconstruct strategic flexibility from the perspective of value chain processes and explore the mechanism of cross-border e-commerce platform empowerment on SME export performance.	Empowerment theory and value chain theory	Quantitative (Survey: 425) Home country: China Industry: multiple Analytical method: multiple mediating effect regression analysis	Strategic flexibility plays a partial mediating role between the empowerment of e-commerce platforms and SMEs' export performance. Specifically, market flexibility shows a relatively weak significance unlike delivery flexibility, which shows the strongest significance.
36	Deng <i>et al.</i> (2022)	Do digital platforms make rapid internationalisation less risky and more beneficial for exporters?	TCT and organisational learning perspective	Quantitative (Secondary data: 353,636 transactions) Home country: China Industry: multiple Analytical method: cox model	Internationalisation speed of exporters on a digital platform reduces the likelihood of exporter exit from this platform.
37	Lee <i>et al.</i> (2023)	Do E-commerce policy environments have an impact on the digital platform risk for the Chinese INVs? Does perceived digital platform risk have an impact on the scope of internationalisation of the Chinese INVs?	Institutional theory	Mixed methods (Interviews: 21; survey: 394) Home country: China Industry: multiple Analytical method: SEM	Domestic and foreign market e-commerce policy uncertainties positively affect the digital platform risk for INVs, with foreign market e-commerce policy uncertainty having a stronger positive impact.

38	Singh <i>et al.</i> (2023b)	What is the impact of the Indian Government policies on mitigating home country-level market barriers to SME internationalisation using e-commerce platforms? What is the impact of the government policies on mitigating industry-level market barriers to SME internationalisation using e-commerce platforms?	/	Qualitative (Case study-interviews: 5) Home country: India Industry: / Analytical method: thematic analysis	E-commerce policies improving interagency coordination, procedural efficiency, and export education enhance export efficiency leading to platform-based SME internationalisation. E-Commerce policies mitigating platform-based discriminatory practices and market dominance by large firms ease anticompetitive concerns leading to platform-based SME internationalisation.
39	Eduardsen <i>et al.</i> (2023)	The role of specific obstacles confronted by firms when exporting via CBEC.	RBV and institutional theory	Quantitative (Secondary data: 1,256) Home country: multiple Industry: multiple Analytical method: covariance-based SEM	CBEC barriers (financial complexities, coping with foreign markets, supplier restrictions, technical difficulties, and product limitations), are negatively affecting online export performance.
40	Hu <i>et al.</i> (2023)	The impact of digital platforms on wine firms' internationalisation in China by adopting the service ecosystems approach.	Service ecosystems perspective	Qualitative (Interviews: 27) Home country: Italy Industry: wine Analytical method: /	Digital platforms hold a key role in the wine firms' internationalisation in China, intervening with resource integration mechanisms, alignment to the cultural context and mediating firms' digital presence in the market.
41	Batsakis <i>et al.</i> (2023)	Whether the relationship between product and international diversification for going digital firms will be mitigated by the firm's digital sales intensity?	Resource bundling perspective	Quantitative (Secondary data: 1,029) Home country: multiple Industry: retailing Analytical method: 2SLS IV model and two-stage Heckman selection model	While increased product diversification in physical channels relates negatively with international diversification in both physical and digital channels, increased product diversification in digital channels relates

					positively with international diversification in both channels.
42	Ballerini <i>et al.</i> (2023)	How do manufacturing SMEs' e-commerce commitment and digital platform adoption stimulate the actualisation of three e-commerce affordances?	Affordance theory	Mixed (Interviews: 20; survey: 165) Home country: / Industry: manufacturing Analytical method: fsQCA analysis, SEM	Direct selling through owned websites actualises consumer knowledge generation and internationalisation, indirect selling actualises customer diversification and internationalisation, and agency selling through third-party platforms actualises all three affordances.
43	Singh <i>et al.</i> (2023a)	How do platforms mitigate SEs' resource poverty, provide access to non-location-bound assets, and enable their internationalisation?	Internalisation theory	Qualitative (Interviews: 9) Home country: India Industry: multiple Analytical method: thematic analysis	This study identified several platform-specific advantages (i.e., technology-related, export-related, marketing-related, network-related, complementor-related, governance-related, relationship-related PSAs).

Appendix 2. Preferred reporting items for systematic reviews and meta-analyses (PRISMA) flow diagram.





Citation on deposit: Gong, C., He, X., & Lengler, J. (in press). Internationalisation through digital platforms: a systematic review and future research agenda. *International Marketing Review*

For final citation and metadata, visit Durham

Research Online URL: <https://durham-repository.worktribe.com/output/2455365>

Copyright statement: This accepted manuscript is licensed under the Creative Commons Attribution 4.0 licence.

<https://creativecommons.org/licenses/by/4.0/>