





Capabilities and Performance of Early Internationalizing Firms: A Systematic Literature Review

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ABSTRACT

International-entrepreneurship researchers use a capability-based perspective to analyze the international performance of early-internationalizing firms. More than 300 papers seem to address the role of capabilities in international performance. The purpose of this study is to structure this literature and provide an orientation for researchers. First, we develop a capability-categorization model. Second, we use this model in conjunction with our systematic literature review to identify which capabilities dominate the literature and which may have been overlooked. Third, we find that, in a significant share of the papers, “capability” is defined rather loosely, which impedes theory development at the interface of the capability-based perspective and international entrepreneurship. We conclude with a research agenda for future capabilities-based international-entrepreneurship research.

KEYWORDS

Capability categorization; dynamic capability; early internationalizing firms; international entrepreneurship; substantive capability

Young companies that internationalize fast and early have captured scholarly interest. These companies are known as “international new ventures” (INVs) (McDougall, 1989; Ojala et al., 2018), “global start-ups” (Oviatt & McDougall, 1995), “born globals” (Knight & Cavusgil, 1996), “international start-ups” (Han, 2006), or “instant internationals” (Schulz et al., 2009). These terms overlap and, at their core, address similar firm types (Dzikowski, 2018). Some experts argue that there may be an unnecessary proliferation of terms that “vary in insignificant ways” (Svensson & Payan, 2009, p. 409). We, therefore, use the umbrella term *early-internationalizing firms* (Rialp et al., 2005, p. 148).

Early-internationalizing firms (EIFs) have a significant impact on the economy. For example, they account for 40 percent to 50 percent of young firms in

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Belgium and Denmark and 15 percent to 20 percent of start-ups in the United States and the United Kingdom (UK) (Eurofound, 2012). EIFs are recognized for their potential to create jobs (Mandl & Patrini, 2017). In the United States, 86 percent of technology-based start-ups are EIFs (Manyika et al., 2016). Worldwide, EIFs create 360 million jobs (Manyika et al., 2016). Furthermore, start-ups that fail to internationalize early may lose a significant share of their potential customers (Fertik, 2013).

How EIFs achieve international performance is one of the most frequently studied questions in international-entrepreneurship (IE) research (Jones et al., 2011; Keupp & Gassmann, 2009). In research on EIF performance, the capability-based perspective (CBP, Teece et al., 1997) is a well-established theoretical lens (Al-Aali & Teece, 2014; Knight & Cavusgil, 2004; Weerawardena et al., 2007).

IE research that uses the CBP as a theoretical lens has offered many significant insights. For example, Knight and Cavusgil (2004) highlight the role of global technological capabilities in international performance. Falahat et al. (2018) analyze the role of networking capabilities, which help firms overcome the liabilities of outsidership (Johanson & Vahlne, 2009). More recently, Kowalik et al. (2020) show how EIFs' marketing capabilities (communication and sales) contribute to the expansion of these ventures in the international market.

A cursory overview shows that more than 300 papers claim to address the role of capabilities in EIF international performance. This quantity of academic papers alone suggests a complex field that invites the systematization of these papers' findings to guide future research. Such a systematization will show which capabilities researchers have already studied. A body of knowledge is evolving around these capabilities, and it is time for research to know the "state of its art" to build on it. Furthermore, our review pinpoints which capabilities have received little attention and, consequently, where future research opportunities lie. Hence, the purpose of this study is to provide a structured literature review of the types of capability that may be relevant to the international performance of EIFs. Our research question is concerned with identifying the capabilities that have been studied in the literature concerning EIF performance.

Such systematization needs structure and requires the content selected to have validity. First, we base our systematization on the established distinction (Helfat & Peteraf, 2003; Teece, 2012) between substantive capabilities (SCs) and dynamic capabilities (DCs). We add additional dimensions to this foundation that reflect the IE context. Second, some authors use the capability terminology loosely, creating content-validity problems (Fainshmidt et al., 2016). For example, some claim to have analyzed capabilities; whereas, they analyze antecedents or consequences of capabilities. To counter the lack of content validity, we include only studies that define and address capabilities as

patterns of repetitive action (Teece, 2014; Wang & Ahmed, 2007; Zollo & Winter, 2002). By providing a structured analysis of a valid set of studies at the CBP and international-performance interface, we offer a current state-of-the-art overview to guide future research (Kraus et al., 2020).

Theoretical background of the capability-categorization model

Substantive and dynamic capabilities and their internal and external orientation as the building blocks of the capability-categorization model

Many IE research efforts are based on the CBP. The CBP holds that firm performance differences are driven by differences in firms' capabilities (Teece, 2007; Teece et al., 1997). According to this use, a capability is "a learned and stable pattern of collective activity" (Zollo & Winter, 2002, p. 340) at the firm level. The two basic types of capabilities are substantive capabilities (SCs) and dynamic capabilities (DCs).

Firms use SCs to capture the services that resources render (Zahra et al., 2006). Firms use SCs to perform administrative, operational, and governance tasks to create value for their stakeholders (Teece, 2014). Such substantive capabilities are also known as static (Collis, 1996), zero-level (Winter, 2003), operational (Helfat & Peteraf, 2003), and ordinary capabilities (Teece, 2012). DCs are "the capacity of an organization to purposefully create, extend, or modify its resource base" (Helfat, 2007, p. 1). Firms use DCs to sense environmental changes, formulate responses to these changes, and then set about implementing them (Teece, 2014).

We add the dimension of internal and external orientation to the SC/DC systematization (Grant, 2016; Helfat, 2007; Wernerfelt, 1984; Zahra & Nielsen, 2002). This orientation describes whether using the capability directly addresses outside stakeholder interests (external) or improves the firm's operations (internal). SCs that are internally oriented are concerned with activities that help a firm perform its internally oriented operational and administrative activities ("technical efficiency," Wang & Yao, 2002). SCs that are externally oriented concentrate on activities that help a firm perform its externally oriented operational and administrative activities ("external fit," Helfat, 2007, p. 7). DCs that are internally oriented are those that the firm uses to update and improve its internal functions ("technical fitness," Helfat, 2007). DCs that are externally oriented help a firm match the context in which the firm operates and reach "evolutionary fitness" (Helfat, 2007). This evolutionary fitness addresses "how well a dynamic capability enables an organization to make a living by creating, extending or modifying its resource base" (Helfat, 2007, p. 7).

Categorizing substantive capabilities

We add two dimensions to categorize SCs. First, we differentiate between operational and administrative activities. Mintzberg (1980) distinguishes between a firm's operating core and its strategic apex. Operational activities refer to production and organization, while administrative activities coordinate processes—such as “direct supervision,” “standardization of work process,” “standardization of outputs,” “standardization of skills,” and “mutual adjustment” (Mintzberg, 1980, p. 323)—so that things are done right. Teece (2014, p. 331) refers to this distinction as “achieving technical efficiency and ‘doing things right’ in the core business functions of operations, administration, and governance.”

Second, we distinguish between capabilities for the international market and those for the domestic market. Evidence shows that capabilities dealing with international operations and administration contribute to the international performance of EIFs (Boso et al., 2017; Mathews et al., 2016). However, domestically oriented capabilities still matter (Dimitratos et al., 2004; Karafyllia & Zucchella, 2017; Liu et al., 2016). For example, enterprises from emerging economies tend to nurture their domestic market capabilities to create a foundation before embarking on internationalization (Li Sun, 2009). Furthermore, other entrepreneurship research finds that the capability to utilize online social-network capitals impacts individuals' entrepreneurial entry (Wang et al., 2020).

In sum, four categories of SCs address externally oriented activities: capabilities related to ① international market operations, ② domestic market operations, ③ international market administration, and ④ domestic market administration. Additionally, two categories of SCs address internally oriented activities: ⑤ capabilities related to internal operations and ⑥ capabilities related to internal administration. Figure 1 presents the categorization model and generic types of SCs.

SCs related to international market operations and administration (quadrants ① and ③) promote EIFs operations and administration related to international markets. SCs related to international market operations include pricing, selling, distributing, and implementing marketing campaigns. For example, an EIF's international marketing capabilities, which employ the firm's collective knowledge on international market needs, create a positional advantage and promote export performance over time (Martin et al., 2017). SCs related to international market administration are those that support the firm's administrative activities. Activities include coordinating, maintaining, and expanding international networks. International networking capability (Coviello & Munro, 1995) and international marketing-channel management capability (Boso et al., 2017) are the two representative capabilities.

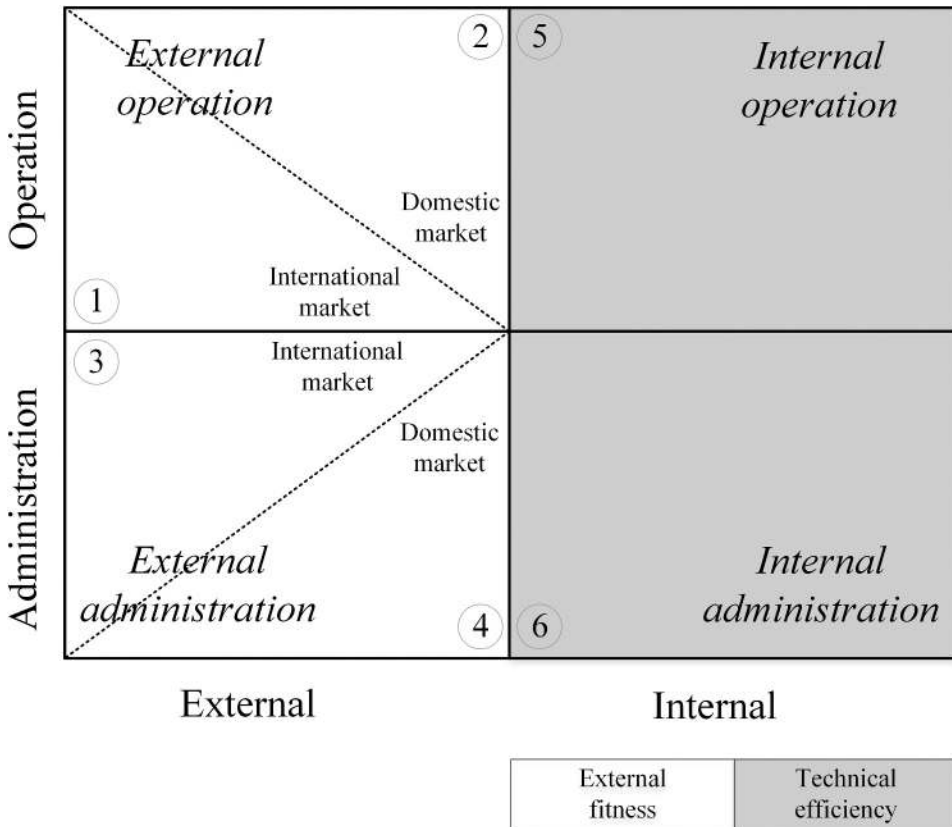


Figure 1. The categorization model and generic types of SCs.

SCs related to domestic market operations and administration (quadrants ② and ④) facilitate EIFs in executing domestic markets’ operational and administrative activities. Such activities include coordinating the firm’s domestic supply chain when international market orders come in. SCs related to domestic market administration are activities that a firm conducts to manage internal resources. For instance, a firm’s human resource management capabilities positively influence its performance (Meyer & Xin, 2018).

Other SCs related to internal operations and administration (quadrants ⑤ and ⑥) are concerned with operational and administrative activities that focus on internal transactions. Capabilities related to internal operations consist of SCs that sustain the firm’s operational activities, such as production and supporting activities. For example, an IT capability helps EIFs to “turn information technology into customer value” (Glavas et al., 2017, p. 11) and, therefore, increases their international market share and stimulates sales growth (Glavas et al., 2017). SCs related to internal administrations aim to maintain and increase administrative efficiencies, such as daily management

capability and HRM capability. For example, EIFs' management capabilities—a complex bundle of daily management skills, cost control, and financial management skills—drive short-term financial and long-term strategic performance in the international market (Efrat & Shoham, 2012).

Categorizing dynamic capabilities

To DC, the criteria of internal/external and of international/domestic also apply. An additional dimension refers to the strategic functions of exploration and exploitation, two strategic logics for DCs (Benner & Tushman, 2003). Exploration refers to “learning gained through processes of concerted variation, planned experimentation, and play” (Baum et al., 2000, p. 768). Exploitation denotes “learning gained via local search, experiential refinement, and selection of existing routines” (Baum et al., 2000, p. 768). Accordingly, international and domestic market observation and evaluation activities (searching) belong to exploration and international and domestic market resource-acquisition activities (executing) belong to exploitation. Such a categorization is consistent with the explorative and exploitative internationalization capabilities advanced by Prange and Verdier (2011).

Accordingly, four categories of DCs address externally oriented activities: capabilities related to ⑦ international market observation and evaluation, ⑧ domestic market observation and evaluation, ⑨ international market resource acquisition, and ⑩ domestic market resource acquisition. Two DC categories address internally oriented activities: ⑪ capabilities related to resource renewal and ⑫ capabilities related to resource reconfiguration. Figure 2 presents the categorization model and the generic types of DCs.

DCs for international market observation, evaluation, and resource acquisition (quadrants ⑦ and ⑨) also contribute to international performance. For example, international market observation and evaluation capabilities improve the fit between firms and the international market. These capabilities assist firms in identifying international market opportunities (Madsen, 2010). A firm's ability “to learn about its market environment and use this knowledge to guide its actions” contributes positively to its international growth (Zhou et al., 2012, p. 26). EIFs use international resource acquisition capabilities to acquire resources from international markets through approaches such as cooperation with firms in the target markets. For instance, dynamic marketing capabilities enable EIFs to set up new distribution channels and new sales forces and significantly improve their export performance (Ledesma-Chaves et al., 2020).

DCs relate to domestic market observation and evaluation, and resource acquisition (quadrants ⑧ and ⑩) promotes firm performance in the domestic market. Such capabilities help firms find opportunities and new resources in domestic markets (Weerawardena, 2003). Capabilities related to domestic

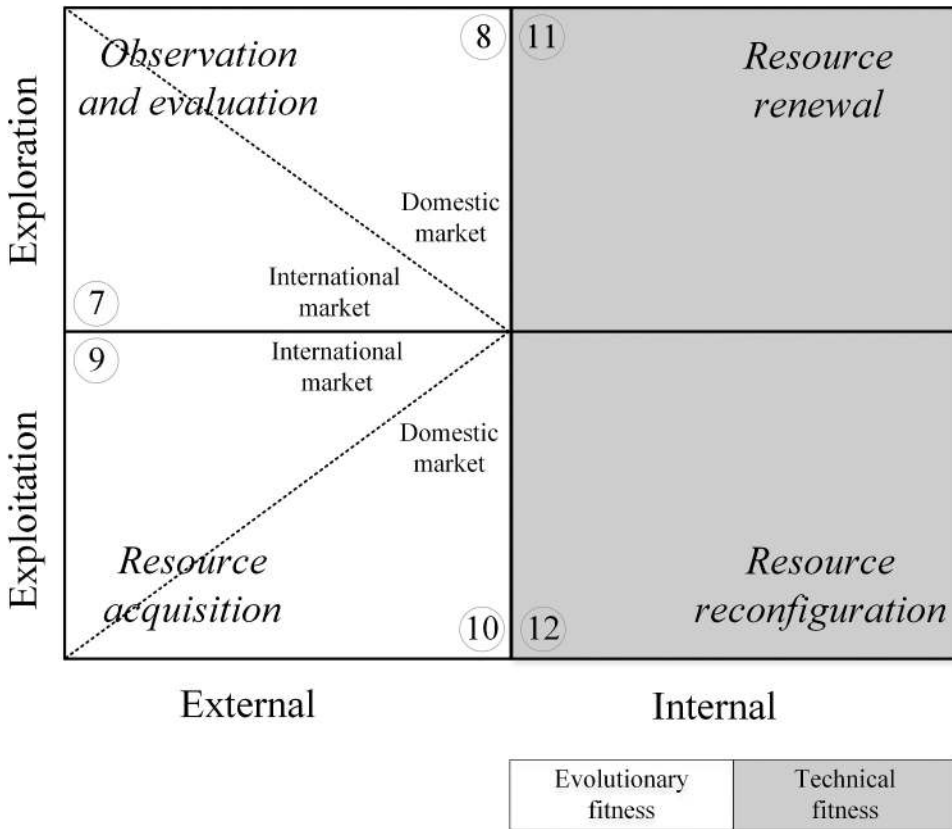


Figure 2. The categorization model and generic types of DCs.

resource acquisition help EIFs secure a relative advantage by reducing costs (for example, for labor or raw materials) in the domestic market (Kondo, 2005).

DCs for internal resource renewal and resource reconfiguration (quadrants ⑪ and ⑫) help the firm perform its internal functions. Resource renewal occurs when a firm updates its resources to newer versions. Resource reconfiguration occurs when a firm combines resources differently than before. Accordingly, capabilities related to internal resource renewal modify previous knowledge and experience (Madsen, 2010). For example, the IT capability of EIFs aims to manage the information between suppliers and customers, which combines newly acquired information resources with previous ones and contributes to their international performance (Zhang et al., 2013). Meanwhile, internal resource reconfiguration capabilities revise product development routines and decision-making procedures and promote new valuable resource combinations, crucial for sustaining competitiveness in dynamic environments (Teece et al., 1997). Resource-based reconfigurations contribute significantly to (perceived) international performance (Jantunen et al., 2005).

Methodology

Systematic literature review and its conceptual boundaries

Our research question is concerned with which capabilities have been studied in the literature on EIF performance. To answer this question, we use a systematic literature review (SLR) based on Tranfield et al. (2003) and structure our findings using our categorization model. An SLR provides several advantages: (1) it provides a set of steps that can be duplicated to ensure the validity of a review, and (2) it helps to systematically synthesize and analyze the accumulated knowledge (Kraus et al., 2020; Wang & Chugh, 2014).

An SLR starts by clarifying the key terms' conceptual boundaries (Wang & Ahmed, 2007). Clarifying these conceptual boundaries is essential when the key terms are ambiguous (Lund, 2018). To avoid ambiguity, we conceptualize capability in the narrow sense of “a pattern of repetitive actions.” This conceptualization is generalized from previous studies, such as the definition of “learned and stable pattern of collective activity” (Zollo & Winter, 2002, p. 340) and “a set of current or potential activities” (Teece, 2014, p. 328). In this conceptualization, we exclude papers that violate content validity—namely, those that address capabilities' antecedents or the consequences of capabilities rather than the capabilities themselves. Second, we define EIFs as “organizations that are international from inception” (Svensson & Payan, 2009, p. 410). In this conceptualization, we exclude papers that address, for example, established small- and medium-sized enterprises. Third, we conceptualize international performance as the benefits achieved from international markets or through internationalization (for a review of the international performance of EIFs, see Gerschewski and Xiao (2015)). Here, we exclude papers that do not address international performance.

Search strategy

We used Science Direct, Scopus, and Web of Science as the most comprehensive journal databases. We chose the subject areas “international business,” “entrepreneurship,” and “general management.” We then used Boolean search terms for the title, abstract, and keywords: capability AND (“born global” OR “international new venture” OR “global start-up” OR “early internationalization” OR “international start-up” OR “born international” OR “internalized SME” OR “international entrepreneur” OR “early internationalizing firm”). We used different spellings to cast the net widely; for example, “born-global” and “BG” for “born global,” “global start up” for “global start-up,” and “early internationalisation” for “early internationalization.” Since “international performance” is known by many names, we did not search for this construct with keywords but identified papers on international performance later. Third, we set the period as before and

including October 2020. We targeted reviewed journal papers to ensure scientific rigor (Jones et al., 2011). Initially, we found 497 articles. See Figure 3 for the SLR procedure and the number of papers remaining after each stage.

We discarded duplicates, retaining 385 articles as a result. We then assessed the remaining papers' quality by checking whether the Chartered Association of Business Schools Academic Journal Guide 2015 (Cremer et al., 2015) listed them. This check resulted in 301 papers from high-quality journals. We then discarded papers that focused on general firm performance and not on international performance. We found 117 papers that focused on the international performance of EIFs. Next, we excluded papers that did not address capabilities defined as "a pattern of repetitive actions" (Zollo & Winter, 2002, p. 340). To make this assessment, we used the item formulation (quantitative papers) or illustrative quotes (qualitative papers) since the operationalization provides a way to understand what researchers mean precisely when they use the term *capability* (Laaksonen & Peltoniemi, 2018). If there were strong cues of repetitive actions, such as "manage relationships with marketing channel members" (Boso et al., 2017, p. 15), the construct was categorized as a capability. We excluded papers that erroneously labeled the outcome of a capability as a capability itself. Our review found that 13 papers with 22 specific "capabilities" did not address capabilities but rather capability antecedents or capability consequences. For instance, one paper defined social capabilities as "social interaction, relationship quality, and network ties" (Urban & Sefalafala, 2015, p. 263). A final deletion of conceptual and review papers and papers that did not address international performance and EIFs resulted in the retention of 41 articles (see Appendix I).

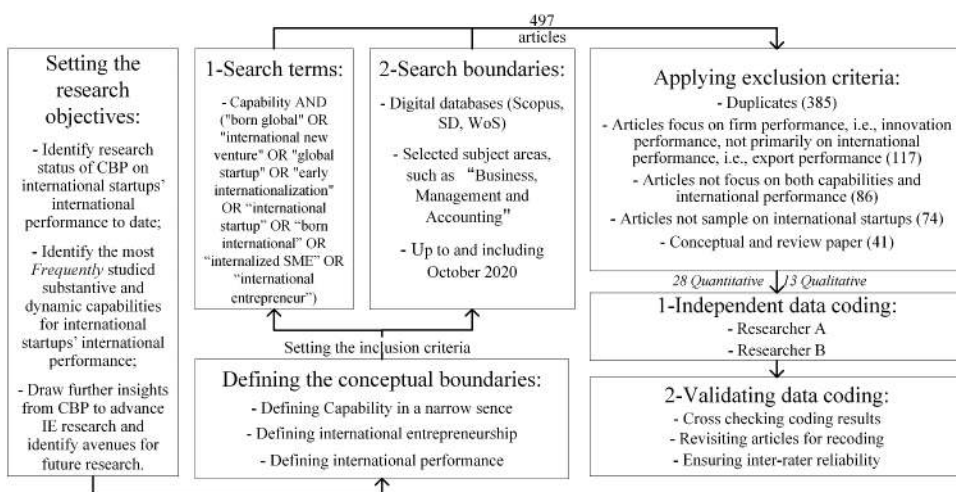


Figure 3. The procedure and result of the systematic literature search.

Analysis strategy

We categorized a capability as SC or DC. Cues that address the use of resources to implement repetitive actions yield a categorization of SC. For instance, marketing capabilities that address “the integration processes designed to apply the firm’s collective knowledge, skills, and resources to the business’s market-related needs” (Ripolles et al., 2012, p. 281) are an example of marketing SCs. Cues that suggest creating, extending, or modifying the firm’s resource base imply DCs (Helfat, 2007). When a definition contained cues of both SCs and DCs, we assigned it to a “mixed” group.

We then judged the orientation (internal or external) of the capabilities based on the transaction’s locus addressed by the capability. If the capability was oriented toward an outside transaction, such as “marketing channel members” (Boso et al., 2017, p. 15) or “external links and institutions” (Weerawardena et al., 2014, p. 239), we assigned it to the “external” category. If the capability was oriented toward an environment that required no outside transactions, such as internal “financial resources” (Gabrielsson et al., 2004, p. 593) or the firm’s “existing knowledge routines” (Weerawardena et al., 2019, p. 5), we labeled it an internally oriented capability.

We then judged whether the content of these actions referred to operation/administration or exploration/exploitation, respectively. For SCs, we judged whether they addressed an operational or administrative capability. Operational capabilities are activities that relate to production or product support services, such as “productive activity” (Efrat & Shoham, 2012, p. 678) or activities to “overcome resistance to ‘newness’” (Weerawardena et al., 2019, p. 5). Administrative capabilities comprise activities relating to coordination across internal functions, such as “deploy[ing] financial resources” (Gabrielsson et al., 2004, p. 593), or coordination with external networks—for example, to “establish subsidiaries rapidly and find suitable distributors” (Gabrielsson & Gabrielsson, 2013, p. 1346).

For DCs, we judged whether they addressed exploratory or exploitative capabilities (March, 1991). Exploitation focuses on a firm’s existing markets, products, resources, and capabilities and helps the firm best use resources for efficient implementation and execution (March, 1991). Exploration challenges the status quo and helps the firm to seek new knowledge about markets, products, resources, and capabilities (Lisboa et al., 2011). Finally, we sorted the externally oriented capabilities according to those that targeted the international market and those that targeted the domestic market.

To validate the analysis, two authors independently read and categorized each paper. The intercoder reliability (Gaur & Kumar, 2018) was 71 percent. We resolved the remaining ambiguities through discussion. A detailed statement outlining the reasons for assigning a capability to a particular category is available in the supplementary resource.

Results

The 41 papers address 85 specific capabilities, with 46 DCs in 28 papers and 15 SCs in 14 papers (see Table 1; for more detail, see Appendix II). The majority of these papers are multiindustry studies (21), and 12 studies focus on technology-based firms. Companies originated in China (11 studies), Europe (11 studies), the United States (4 studies), and elsewhere.

Marketing capabilities are the capabilities most frequently studied. Twenty-two types of marketing capabilities were addressed in 16 papers. These marketing capabilities are distributed over three groups of DC. Regarding SC, scholars focused on international market operation and international market administration. Concerning dynamic marketing capabilities, scholars addressed capabilities related to international market observation and evaluation, international market resource acquisition, and resource reconfiguration in international markets.

Dynamic marketing capabilities related to international market observation and evaluation (quadrant ⑦) contribute to the international performance of EIFs by deepening understanding of changes in international markets (Blesa et al., 2010) and communicating their competitive advantages to potential markets (Falihat et al., 2020). Such capabilities facilitate EIFs' gathering information from foreign customers and competitors (Zucchella et al., 2019) and addressing rapidly changing markets (Zhou et al., 2012). In addition, these capabilities help firms to identify and select compelling value propositions to target customers (Martin & Javalgi, 2016).

Dynamic marketing capabilities related to international market resource reconfiguration (quadrant ⑫) received more attention than resource acquisition (quadrant ⑨). For example, dynamic marketing capabilities related to international market resource acquisition involve starting and implementing change initiatives concerning the reconfiguration of internal resources (Gabrielsson & Gabrielsson, 2013; Pehrsson et al., 2015; Weerawardena et al., 2019). Kowalik et al. (2020) suggest that INVs' specialized marketing capabilities (communication and sales) contribute to these ventures' international market expansion.

Substantive marketing capabilities focus on capabilities that relate to international market operation (quadrant ①). Such capabilities contribute to the international performance of EIFs by helping firms to maintain international customer relationships (Khavul, Peterson et al., 2010), operate campaigns in the international market (Martin & Javalgi, 2016), and deliver services to international customers (Martin et al., 2018). Other SCs are from the international market administration category (quadrant ③). This type of capability comprises SCs that help firms to administer international markets effectively. For example, a marketing channel management capability supports the expansion of EIFs by strengthening the positive relationship between product-

Table 1. Capabilities from the literature and their allocation to the capability categorization model.

	Substantive capabilities (SCs) [15]	Dynamic capabilities (DCs) [48]
Overarching capabilities		
Marketing capabilities [22]	① International market operation (8) ③ International market administration (2)	⑦ International market observation & evaluation (5) ⑨ International market resource acquisition (3) ⑩ Resource reconfiguration (4)
Learning capabilities [12]		⑧ Resource renewal (4)
Technological capabilities [10]	⑤ Internal operation (1)	⑩ Resource renewal (4)
Entrepreneurial capabilities [7]		⑨ International market resource acquisition (3)
Networking capabilities [6]	③ International market administration (2)	⑩ International market resource acquisition (3)
Resource-exploiting capabilities [4]		⑩ Resource renewal (1)
Management capabilities [2]	⑥ Internal administration (2)	
Capability antecedents or outcomes (22)		

1. The distribution of specific capabilities is not mutually exclusive.

2. Numbers in “□” and “□” refer to the account of the overarching capability and the specific capability being studied, respectively.

3. No study discusses domestic market-oriented capabilities.

innovation novelty, risk-taking, competitiveness, aggressiveness, autonomy, and regional expansion (Boso et al., 2017).

Learning capabilities is the second most frequently studied group of capabilities. Overall, 12 learning capabilities were analyzed in seven papers. All learning capabilities are DCs. Specifically, scholars highlighted the function of international market observation and evaluation (quadrant ⑦). These learning capabilities contribute to the international performance of EIFs through recognizing the value of new and external information (Wu & Voss, 2015), acquiring international market knowledge and identifying customers' needs (Weerawardena et al., 2019), and increasing the match between existing competencies and foreign market opportunities (De Clercq et al., 2016).

The resource renewal function (quadrant ⑩) of learning capabilities was also addressed. These learning capabilities mainly focus on generating new knowledge and ideas from networking and marketing activities, such as learning from networks (Weerawardena et al., 2014), learning from markets, and internally focused learning (Weerawardena et al., 2019).

Some studies explored learning capabilities for resource acquisition from international markets (quadrant ⑨). For example, Weerawardena et al. (2019, p. 128) observed that EIFs' networking learning capability that focuses on "learning from network partners about emerging needs in surveillance and imaging applications" positively contributes to international opportunity identification and early entry into international markets.

Technological capabilities is the third most frequently researched group of capabilities. Ten technological capabilities were studied in nine papers. Scholars focused on dynamic technological capabilities, such as the resource reconfiguration function (quadrant ⑫). There are several ways in which technological capabilities impact the international performance of EIFs. For example, IT capability enables EIFs to continually update their IT architectures, allowing them to operate efficiently (Zhang & Tansuhaj, 2007). Technology and R&D capabilities enhance the international performance of EIFs by reconfiguring resources into products with high value-added and by coordinating learning inside the firm (Efrat & Shoham, 2012).

Others emphasize the resource renewal function (quadrant ⑪) of technological capabilities. These technological capabilities contribute to the international performance of EIFs, mainly by gathering new technological knowledge (Khan & Lew, 2018; Urban & Sefalafala, 2015). For example, technology and technological capabilities increase EIFs' technological distinctiveness and stimulate their technology acquisition (Urban & Sefalafala, 2015). Product development activities increase EIFs' product knowledge in specific domains (Khan & Lew, 2018). With renewed capabilities, EIFs can convert their knowledge into new products that satisfy emerging customer needs (Khan & Lew, 2018).

Only one study focused on substantive technological capabilities (internal operation, quadrant ⑤). These capabilities help to sustain the efficiency of

a firm's operational activities. Scholars find that IT capabilities that focus on turning knowledge embedded in their Internet-based networks into customer value promote the international performance of EIFs (Glavas et al., 2017).

Entrepreneurial capabilities is the fourth most frequently studied capability category. Seven entrepreneurial capabilities, all of them DCs, were studied in four papers. About half of these capabilities highlight international market observation and evaluation (quadrant ⑦). These capabilities contribute to the international performance of EIFs by acting on identified opportunities or by creating new opportunities in international markets (Karra et al., 2008). Such capabilities facilitate EIFs in identifying and acquiring necessary resources, including entrepreneurial and management knowledge (Knight & Cavusgil, 2004). Other entrepreneurial capabilities focus on international market resource acquisition (quadrant ⑨). These capabilities help EIFs acquire international market knowledge, information on emerging customer needs, and new international market opportunities via networks (Karra et al., 2008; Zhang et al., 2017).

Networking capabilities is the fifth most frequently investigated capability category. Six networking capabilities were analyzed in five papers. Three studies address networking capabilities from the perspective of international market resource acquisition (quadrant ⑨) and one study from the perspective of resource renewal (quadrant ⑪). These networking capabilities contribute to the international performance of EIFs in three ways. First, the international networking activities of EIFs facilitate the identification of new opportunities in the global market (Mort & Weerawardena, 2006). Second, international networking capabilities help EIFs obtain the necessary resources by creating alliances and strengthening EIFs' social embeddedness (Zhang et al., 2009). Third, they help access valuable information and resources from networks and develop an effective marketing strategy for high performance in foreign markets (Falihat et al., 2018). Other studies address the international market administration function (quadrant ③) of networking capabilities. This type of capability comprises SCs that are concerned with effective administrative activities. These networking capabilities (Bai et al., 2018) help firms run international subsidiaries and distributors' networks (Gabrielsson & Gabrielsson, 2013).

Resource exploiting capabilities is the sixth most frequently analyzed capability category. Four different capabilities in four studies make up this category (quadrant ⑫). These capabilities contribute to the international performance of EIFs mainly through resource reconfigurations. For example, Pehrsson et al. (2015) and Weerawardena et al. (2019) show that DCs aimed at reconfiguring resources and building new routines that respond to environmental developments enhance the international performance of EIFs.

Management capabilities are the least frequently investigated capability category. Two studies with two specific capabilities address internal

administration functions (quadrant ⑥). These capabilities comprise SCs that maintain and increase administrative efficiency. For example, finance capabilities facilitate the deployment of financial resources (Gabrielsson et al., 2004). Meanwhile, management capabilities benefit EIFs with a higher technological orientation, making them more proactive in exploiting opportunities and contributing to the long-term survival of EIFs (Efrat & Shoham, 2012).

Discussion and future research agenda

Contributions to research

Our research question is about which capabilities have been addressed in the literature concerning EIF performance. To structure our answer, we built on the SC-DC capability categorization and added an internal-external orientation, a domestic market–foreign market orientation, and, specific to SCs and DCs, several content-based dimensions. We then used the capability categorization model to structure the literature on capabilities that had received the most research attention. Thus, we contribute to the IE review literature by introducing a systematic review of the CBP in IE (Dzikowski, 2018; Keupp & Gassmann, 2009; Romanello & Chiarvesio, 2019).

First, we found that marketing, learning, and technical capabilities were most frequently analyzed in the EIF literature. An emphasis on marketing capabilities was not surprising because many researchers address IE from the perspective of international sales (Dzikowski, 2018; Keupp & Gassmann, 2009; Romanello & Chiarvesio, 2019) and not as much from the perspective of international procurement (Servais et al., 2007). The emphasis on learning may stem from IEs' foundations in the Johanson and Vahlne (1977, 2003, 2009) models, which also feature learning as a critical aspect (McDougall & Oviatt, 2003). Furthermore, it is rooted in the emphasis placed on learning in the DC literature (Vogel & Güttel, 2013). The emphasis on technological capabilities may be based on the propensity of technology-based new ventures to internationalize (Manyika et al., 2016). Moreover, foundational works (Knight & Cavusgil, 2004; Zahra et al., 2000) introduced the topic of technological capabilities into the IE literature at an early stage. These technical capabilities may become even more important within the context of how the Internet of Things will shape markets (Islam et al., 2020).

Second, we augment the IE-CBP literature by showing which capabilities were underrepresented, such as the relationship between domestic market capabilities and international performance (see Table 1). However, capabilities initially developed for the domestic market do influence international performance (Sigfusson & Harris, 2013). For example, domestic market operations either support the international market strategies of EIFs by providing the

experience to deal with international market challenges or hinder their performance through inertia (Nadkarni et al., 2011).

Furthermore, we find minimal effort in capturing capabilities for international performance downstream from the value chain. The type and number of international value chain activities were introduced as a critical dimension for EIF categorizations already in 1994 (Oviatt & McDougall, 1994). However, still in 2002, Zahra and George stressed that IE studies ignore the internationalization of value chains (Zahra & George, 2002). We argue that almost 20 years later, this area remains underexplored. A few papers touch upon international value chains in the context of EIF (see Appendix II, quadrants 9). These papers tend to emphasize the acquisition of new information. While these are essential resources for (international) performance, other resources such as raw materials, preproducts, finance, or human resources also matter.

Recent advances highlight the value of (international) value chain management for these types of resources. Servais et al. (2007) conceptualize “international sourcing as an entrepreneurial act (...) at the core of the internationalization process” (p. 105). They establish empirically that a majority of EIFs export and import early. EIFs tend to engage in long-term formalized relationships with international suppliers characterized by high complexity and high importance. These relationships, the authors argue, require a supplier management approach rather than traditional purchasing. Such an approach could be based on a higher-order capability. For example, Eriksson et al. (2016) argue that a value chain management capability is just such a higher-order capability. This higher-order capability is composed of market, technological, and network capabilities—three of the most studied capabilities in the literature on the IE-CBP interface—and teamwork management capability, which we would position as an internal administration capability international orientation that permeates the lower-order capabilities. We take the idea of higher-order capabilities and suggest that future research may want to look at how lower-order capabilities interact to shape a higher-order capability. Likely, research can draw on the global value chain perspective (Gereffi et al., 2005) to highlight capabilities to establish (DC) and govern (SC) global networks (Buciuni & Mola, 2014).

There are further implications that go beyond IE research. First, we found that approximately 10 percent of the papers that claimed to address capabilities were operationalizing them through their antecedents or their consequences. This raises issues of validity. Researchers that apply the CBP in contexts different from IE may also need to carefully scrutinize the conceptual basis of the works that they use in their research. Second, research in other fields, such as strategic management and general entrepreneurship research, can use the capability classification model. The model is a framework that researchers can deploy to position their studies relative to the research gaps identified in our analysis (Makadok et al., 2018).

Future research agenda

We suggest four avenues for future study. First, researchers have often analyzed capabilities as if they had independent effects on international performance. However, there may be compensating, enhancing, and suppressing effects among interdependent capabilities (Black & Boal, 1994). For instance, capability portfolios, rather than independent capabilities, enhance firm performance (Jie & Harms, 2019; Sjödin et al., 2016). Capability portfolios comprising various types of capabilities that address different functions, including marketing, networking, and technological functions, could comprehensively address international performance. Combining several entrepreneurial capabilities lowers EIFs' liability of newness and manages the complexity and uncertainty in international markets (Karra et al., 2008). Future studies could analyze how capability portfolios contribute to the international performance of EIFs.

Second, future studies could analyze interactions between SCs and corresponding DCs. Qualitative studies and conceptual research currently address the SC-DC (of the same type) interactions (Weerawardena et al., 2019), but there appear to be no quantitative studies on this topic in IE. Future studies could, for example, empirically test dynamic bundles (Peteraf et al., 2013). Dynamic bundles are complementary conjunctions of SCs and DCs designed to achieve a sustainable advantage (Waleczek et al., 2019). For instance, a dynamic bundle of marketing capabilities consists of substantive and corresponding dynamic marketing capabilities. Knowing the interaction between SCs and their dynamic counterparts contributes to an in-depth understanding of how capabilities work and, therefore, offers insight into managerial and entrepreneurial practice. As Peteraf et al. (2013, p. 1407) noted, "Really understanding dynamic capabilities requires seeing the complete picture and exploring interlinked dynamic bundles as a whole."

Third, the review shows that the operationalization of capabilities remains an issue. Table 1 shows that 12 papers that purport to measure capability, defined as repetitive actions, use items that suggest either antecedents, consequences, or a mix of both (Arend & Bromiley, 2009; Pavlou & El Sawy, 2011). These different ways to measure capability limit our ability to draw conclusions from IE capability research (Helfat & Winter, 2011). Consequently, it is challenging to integrate the results from studies with independent variables defined differently (Madsen, 2013) and extract actionable implications for practitioners (Pavlou & El Sawy, 2011). Valid conceptualizations and operationalizations are also needed for theory development (Laaksonen & Peltoniemi, 2018). The need for valid measurement extends to performance measurement—for example, speed, degree, and scope of internationalization (Cesinger et al., 2012)—or strategic, financial, objective, and subjective performance measures (Gerschewski et al., 2015). Therefore, we

encourage future researchers to deploy a valid operationalization of capabilities and performance in IE research.

Finally, we suggest that researchers further contextualize their studies (Zahra, 2007). Initial evidence from the few multicountry studies in our review shows that the relationship between capabilities and international performance seems robust over country differences (Weerawardena et al., 2014; Zhang et al., 2017, 2013). This robustness may be because the capability–performance link is in itself robust or because some entrepreneurs emancipate themselves from the national culture of the country their venture is headquartered in (Harms & Groen, 2017) or because the country of origin turns out to be of less critical importance for EIF when international performance becomes more dominant. Moreover, from a border entrepreneurship sense, the relationship between technological innovation and firm performance is significantly moderated by cross-cultural and institutional differences by a meta-analysis (Singhal et al., 2020). However, further efforts to contextualize are relevant—for example, contextualization can lead to a deeper understanding of country-specific phenomena (Bai et al., 2018, for instance, focus on the specifics of the international entrepreneurship of returnee entrepreneurs in China).

Managerial relevance

This study has several implications for EIF practice. First, the study is a repository from which EIF entrepreneurs can seek to create and sustain their international performance. Several characteristics make this repository particularly useful. EIF entrepreneurs can profit from the special attention paid to selecting studies that address capabilities rather than their antecedents or consequences (Laaksonen & Peltoniemi, 2018). EIF entrepreneurs can be sure to find references to studies that focus on capabilities rather than other topics. Also, entrepreneurs who seek to strengthen a particular function can now find references to studies that address capabilities that are related to these specific functions. Moreover, this study has a unique focus on international performance, which helps EIF entrepreneurs find papers with this particular focus.

Second, entrepreneurs must be aware of the value of learning capabilities. While many look toward functional areas such as marketing to improve international performance, cross-functional capabilities such as learning may receive less attention in practice. These learning capabilities can play a role in how EIFs acquire and leverage critical capabilities (Kirwan et al., 2019). We argued that the interest in learning capabilities might be rooted in IE and DC research's intellectual trajectory. Nevertheless, they have significant performance implications in IE practice (Bingham & Davis, 2012).

Lastly, we agree with Barrales-Molina et al. (2014), who argue that practitioners need to be entrepreneurial when seeking to develop capabilities. We

mean that practitioners need to put capabilities into action and learn how they contribute to performance in the firm's specific context. When implementing, the firm's idiosyncratic history and situation, its cross-functional dependencies (Waleczek et al., 2019), and a long-term perspective (Wang & Ahmed, 2007) should all be taken into account. Iterative experimentation may help firm owners/managers to learn about the effectiveness of capabilities (Harms & Schwery, 2020). This review can be the starting point for such an effort.

Conclusion

Our study has two main limitations. First, we include only published peer-reviewed papers and exclude book chapters and conference papers. Such a focus may invite publication bias—a situation wherein “studies with statistically significant results are more likely to get published than those with non-significant results” (Egger et al., 2001, p. 52). Therefore, caution should be exercised when generalizing our results. Second, we reported only those capabilities that have been most frequently studied. However, they may not be the capabilities most strongly linked to performance. To understand which capabilities have the most substantial performance relationship, we invite research efforts such as meta-analysis on each category's capabilities.

Research on the performance implications of capabilities for EIFs is especially pertinent, given the huge impact that these firms have on the economy. We show that capacity-based perspective is a fruitful theoretical lens. We provide a categorization model for the international entrepreneurship context. Furthermore, we suggest how future research could add to international entrepreneurship research by studying capability portfolios and carefully measuring capabilities. Future efforts to broaden this work's scope on EIF capabilities should energize both the practitioner and the research community.

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Appendix I. Articles analyzed for the literature review (chronologically ordered)

Number	Reference	Country	Industry
1	Gabrielsson et al. (2004)	Finland	tech
2	Knight and Cavusgil (2004)	US	manufacturing
3	Mort and Weerawardena (2006)	Australia	multi-industry
4	Vissak (2007)	Estonia	tech
5	Zhang and Tansuhaj (2007)	US	tech
6	Karra et al. (2008)	Turkey	retail
7	Zhang et al. (2009)	China	manufacturing
8	Blesa et al. (2010)	Spain	multi-industry
9	Khavul, Pérez-Nordtvedt et al. (2010)	China, India, SA	knowledge-intensive
10	Zhou et al. (2010)	China	multi-industry
11	Hermel and Khayat (2011)	France	tech (cosmetics/pharma)
12	Efrat and Shoham (2012)	Israel	tech
13	Khalid and Larimo (2012)	China	tech (ICT)
14	Ripolles et al. (2012)	Spain	multi-industry
15	Zhou et al. (2012)	China	multi-industry (manufacturing focus)
16	Gabrielsson and Gabrielsson (2013)	Finland	tech
17	Zhang et al. (2013)	China, US	multi-industry
18	De Clercq and Zhou (2014)	China	multi-industry
19	Weerawardena et al. (2014)	Australia, US	multi-industry
20	Pehrsson et al. (2015)	Sweden	manufacturing
21	Urban and Sefalafala (2015)	South Africa	multi-industry
22	Wu and Voss (2015)	China	multi-industry
23	De Clercq et al. (2016)	China	multi-industry
24	Lee et al. (2016)	Korea	multi-industry
25	Martin and Javalgi (2016)	Mexico	tech
26	Boso et al. (2017)	Ghana	multi-industry
27	Bunz et al. (2017)	Germany	professional service firms
28	Glavas et al. (2017)	Australia	multi-industry
29	Martin et al. (2017)	Mexico	tech
30	Zhang et al. (2017)	China, South Korea	multi-industry
31	Bai et al. (2018)	China	multi-industry
32	Falahat et al. (2018)	Malaysia	manufacturing (80%)
33	Gerschewski et al. (2018)	New Zealand, Australia	multi-industry
34	Khan and Lew (2018)	Pakistan	tech (software)
35	Martin et al. (2018; 2020)	Mexico	tech
36	Weerawardena et al. (2019)	Australia	tech
37	Zucchella et al. (2019)	Italy	multi-industry
38	Blesa and Ripollés (2020)	Spain	multi-industry
39	Falahat et al. (2020)	Malaysia	multi-industry
40	Kowalik et al. (2020)	Italy Poland	manufacturing
41	Ledesma-Chaves et al. (2020)	Spain	multi-industry



Appendix II. Distribution of capabilities related to the international performance of EIFs

	Substantive capabilities (SCs) [1-5]	Dynamic capabilities (DCs) [48]
Overarching capabilities		
Marketing capabilities [22]	<p>① International market operation International marketing orientation (2); International customer-support capability (9); Marketing planning and implementation capability (13); Marketing capabilities (14); Marketing capabilities* (25); Service capabilities (35); <i>International/Global marketing (36); Specialized export marketing capabilities (sales) (40)</i></p> <p>③ International market administration International marketing channel management capability (26); <i>Specialized export marketing capabilities (communication) (40)</i></p>	<p>⑦ International market observation & evaluation Marketing capabilities (8); Marketing capabilities (15); Marketing capabilities* (25); Marketing capabilities (37); Competitive capability (39)</p> <p>⑨ International market resource acquisition <i>Niche market development (34); International market (customers and competitors) knowledge development (36); Dynamic marketing capabilities (41)</i></p> <p>⑩ Resource reconfiguration Marketing capability (19); Marketing capabilities (29); <i>Marketing capability (36); Competitive capability (39)</i></p>
Learning capabilities [12]		<p>⑦ International market observation & evaluation Absorptive capacity (22); International learning efforts (23); <i>Experiential learning (27); Relationship-based knowledge development (36); International market-focused learning capability (36); Absorptive capacity (38)</i></p> <p>⑨ International market resource acquisition <i>Experiential learning (27); Network learning capability (36)</i></p> <p>⑩ Resource renewal Internally focused learning capability (19); Network learning capability (19); Market-focused learning capability (19); <i>Internally focused learning capability (36)</i></p>
Technological capabilities [10]	<p>⑤ Internal operation Internet capabilities (28)</p>	<p>⑩ Resource renewal Technology and technological capabilities (21); <i>Product development (34); Transforming & renewing capabilities (34); Innovation capabilities (37)</i></p>

(Continued)

(Continued).

	Substantive capabilities (SCs) [15]	Dynamic capabilities (DCs) [48]
Overarching capabilities		
Entrepreneurial capabilities [7]		<p>⑩ International market resource acquisition <i>Entrepreneurial capabilities (6); International entrepreneurial capability (7); International entrepreneurial capability (30)</i></p>
Networking capabilities [6]	<p>③ International market administration <i>Networking capability (16); International network capability (31)</i></p>	<p>⑦ International market observation & evaluation <i>International entrepreneurial orientation (2); Entrepreneurial capabilities (6); International entrepreneurial capability (7); International entrepreneurial capability (30)</i></p> <p>⑧ International market resource acquisition <i>Dynamic networking capability (3); Networking capability (32); Network development (34)</i></p> <p>⑨ Resource reconfiguration <i>Dynamic capability (12); Dynamic capability (16); Dynamic capability (20); Dynamic capabilities (36)</i></p>
Resource-exploiting capabilities [4]		
Management capabilities [2]	<p>⑥ Internal administration <i>Finance capabilities (1); Management capabilities (12)</i></p>	<p>⑪ Resource renewal <i>Networking capability (32)</i></p>
Capability antecedents or outcomes [22]	<p><i>Unique resources and capabilities (4); Knowledge capability upgrading (10); Network capability upgrading (10); Managerial abilities (11); Networking abilities (11); Marketing capabilities (12); Alliance management capability (13); Alliance learning capability (13); Marketing and management-related capabilities (16); Technological capability (16); International learning effort (18); Human capabilities (21); Social capabilities (21); Innovation capabilities (24); Marketing capabilities (24); Learning orientation (33); Entrepreneurial initiatives (34); Stable leadership and experience of top management (34); Technology and innovation and new product development (36); Entrepreneurial capabilities (37); Environmental learning capabilities (37); Networking capabilities (37)</i></p>	
Notes	<p>1. The distribution of specific capabilities is not mutually exclusive. 2. Numbers in “[]” refer to the account of the specific capability under study. Numbers in “()” refer to the corresponding paper in Appendix I. 3. “**” means a mixed category of SCs and DCs. 4. <i>Italics</i> means capabilities discussed in qualitative studies. 5. No study discusses domestic-market-oriented capabilities.</p>	