International Business Review 35 (2026) 102557

Contents lists available at ScienceDirect

International Business Review

journal homepage: www.elsevier.com/locate/ibusrev

Managing resource constraints through international networks: Capability development and incremental and radical innovation in emerging markets

Shufeng Xiao [a,1,2], Byung Il Park [b,3,2], Zaheer Khan [c,d,*,4]

[a] Division of Business Administration, Sookmyung Women's University, 100, Cheongpa-ro 47-gil, Yongsan-gu, Seoul 04310, South Korea
[b] College of Business, Hankuk University of Foreign Studies, 270, Imun-dong, Dongdaemun-gu, Seoul 130-791, South Korea
[c] University of Aberdeen Business School, University of Aberdeen, Aberdeen AB24 3FX, UK
[d] International Business, School of Marketing and Communication, University of Vaasa, Finland

ARTICLE INFO

Keywords:
International network searching
Ordinary capabilities
Dynamic capabilities
Incremental innovation
Radical innovation
Emerging market firms

ABSTRACT

Why do some firms outperform others in technological innovation? This study addresses this question by developing a novel theoretical framework that integrates the extended resource-based view (ERBV) with the organizational capability development perspective. Specifically, we examine how two key attributes of international networks, breadth and depth, influence the development of distinct organizational capabilities: ordinary and dynamic. Using survey data from 198 Chinese manufacturing firms, we find that network breadth significantly contributes to both ordinary and dynamic capabilities, supporting incremental and radical innovations. In contrast, network depth primarily strengthens ordinary capabilities, facilitating incremental innovation but offering limited support for radical innovation. These findings suggest that network breadth is crucial for accessing diverse knowledge and resources to develop both capability types, whereas network depth plays a more specialized role in reinforcing existing capabilities. This study advances theoretical understanding and provides practical guidance for managers seeking to leverage international networks to develop both incremental and radical innovation by elucidating the relationships among international network configuration, capability development, and innovation outcomes, particularly within the resource-constrained and institutionally challenging context of an emerging economy.

1. Introduction

The development and search for competitive resources, particularly knowledge, has long been a central theme in international business (IB) and strategy research. Knowledge, often regarded as a firm's most strategically important resource, is a key determinant of variations in firm performance (cf. DeCarolis & Deeds, 1999; Grant, 1996; Grant & Phene, 2022; Simonin, 1999). Emerging markets face significant resource constraints and institutional voids (Khanna & Palepu, 1997; Mair, Marti, & Ventresca, 2012) that amplify the strategic importance of external networks as crucial mechanisms for accessing critical knowledge and overcoming resource deficiencies (cf. Khan, Rao-Nicholson, & Tarba, 2018). As a rapidly transforming global innovation hub, China offers an interesting context to explore these dynamics, given its simultaneous challenges and opportunities in overcoming institutional gaps through international collaborations.

Recent research indicates that firms are increasingly relying on external networks to address internal resource gaps, especially in fast-evolving technological environments (cf. Han, Goxe, & Freeman, 2024; Khan et al., 2018; Khanna & Guler, 2022). Despite this importance, the relationship between external networks and firm capabilities in emerging markets remains underexplored, yet it holds potential to enhance our understanding of innovation in resource-constrained settings (Anand, McDermott, Mudambi, & Narula, 2021; Vujanović, Radošević, Stojčić, Hisarciklilar, & Hashi, 2022). As the global economy becomes more fragmented amid growing geopolitical tensions

* Corresponding author at: University of Aberdeen Business School, University of Aberdeen, Aberdeen AB24 3FX, UK.
E-mail addresses: bizsxiao@sookmyung.ac.kr (S. Xiao), leedspark@hufs.ac.kr (B.I. Park), zaheer.khan@abdn.ac.uk (Z. Khan).
[1] ORCID: https://orcid.org/0000-0001-9637-4899
[2] * First Author
[3] ORCID: https://orcid.org/0000-0003-1133-464X
[4] ORCID: https://orcid.org/0000-0001-5538-3123

https://doi.org/10.1016/j.ibusrev.2026.102557
Received 1 May 2025; Received in revised form 23 December 2025; Accepted 31 December 2025
Available online 5 January 2026

(Beugelsdijk & Luo, 2024; Luo & Tung, 2025), understanding how firms, especially those in emerging markets, leverage international networks to drive innovation becomes increasingly important.[5] These networks enable firms to access external knowledge, mitigate resource constraints, and respond dynamically to competitive pressures, enabling sustainable innovation and growth.

Real-world examples from emerging markets further illustrate the strategic role of international networks in overcoming resource constraints and institutional voids. For example, Huawei, a leading Chinese technology company, has strategically leveraged the breadth of its international network through partnerships with global technology providers such as Google, ARM, and Intel (Gao, Zuzul, Jones, & Khanna, 2017). These alliances have strengthened Huawei's dynamic capabilities and enabled radical innovation, particularly in the development of 5 G technology (Murmann, Guo, & Huang, 2021). In the face of external restrictions and export bans, Huawei has also demonstrated the complementary value of network depth by relying on deep ties within China's innovation ecosystem. Similarly, Zomato, an Indian food delivery platform, has attracted investment from international venture capitalists, including Sequoia Capital and Alibaba Group, to overcome infrastructure and funding constraints. This extensive network of global financial and strategic partners has helped Zomato absorb advanced platform strategies and build ordinary capabilities that support incremental innovation and market expansion (Nambisan, Zahra, & Luo, 2019).

Although extensive research has explored how international networks facilitate knowledge acquisition and innovation, most of these studies have focused on firms from developed markets (Chesbrough, 2003; Laursen & Salter, 2006). Moreover, despite growing academic interest in international network resources, prior studies have not sufficiently disentangled the distinct effects of network breadth and depth on firm-level capabilities (Prashantham, Zhou, & Dhanaraj, 2020). As a result, there remains a significant gap in understanding whether and how these two network attributes differentially affect the development of ordinary and dynamic capabilities, which are key drivers of incremental innovation and radical innovation, respectively. Prior research in management and IB has emphasized the distinct yet complementary roles of search breadth and depth in shaping innovation and firm performance. Breadth captures the diversity and range of a firm's external connections, enabling access to heterogeneous and complementary knowledge as well as novel learning opportunities. Firms can enrich their knowledge base with diverse variations by searching broadly across different knowledge domains, expanding the range of potential options for solving problems (Kafouros, Buckley, & Clegg, 2012; Katila & Ahuja, 2002; Xiao, Lew, & Park, 2020). In contrast, depth reflects the strength and intensity of a firm's relationships with existing partners, which facilitates trust-based collaboration, knowledge exchange, and resource sharing (Ferreras-Méndez, Newell, Fernández-Mesa, & Alegre, 2015; Kafouros *et al.* 2012; Laursen & Salter, 2006; González-Moreno, Triguero, & Sáez-Martínez, 2019). In this regard, Katila and Ahuja (2002) highlighted the importance of the breadth and depth of a firm's search strategy. They argued that breadth determines how widely a firm explores new knowledge, while depth describes how intensively it reuses and refines its existing knowledge base. An increase in breadth enhances the possibilities for discovering novel and useful combinations, whereas depth enables firms to leverage and recombine what they already know more effectively (Katila & Ahuja, 2002). Building on these insights, this study aims to address this gap by theorizing and empirically examining how two interrelated yet distinct dimensions of network structure, network breadth and depth, differentially shape innovation paths for resource-constrained firms in emerging markets. Based on the preceding discussion, this paper poses the following research questions: 1) How do the breadth and depth of international network ties differentially influence the development of ordinary capabilities and dynamic capabilities in emerging market firms? 2) How do these distinct capabilities, shaped by network breadth and depth, contribute to incremental and radical innovation?

Much of the existing literature relies on frameworks like the resource-based view (RBV) that often fail to capture the external resource dependencies and dynamic adaptation strategies critical for emerging market firms. This study provides a novel framework to address these limitations and contributes to the literature on emerging market firms' innovation strategies by integrating the extended resource-based view (ERBV) with the dynamic capabilities perspective. The ERBV highlights the importance of external resources embedded in networks (Fernandes, Milewski, Chaudhuri, & Xiong, 2022; Popli, Ladkani, & Gaur, 2017), while dynamic capabilities emphasize how firms reconfigure resources to drive innovation (Brock & Hitt, 2024; Pitelis, Wang, Hughes, & Ambrosini, 2025; Teece, 2025). Moreover, this study sheds light on the resource-capability-innovation nexus in emerging market contexts through an examination of how international network breadth and depth influence ordinary and dynamic capabilities, and how these capabilities drive incremental and radical innovation outcomes.

This study leverages data from 198 Chinese manufacturing firms to explore how international network breadth and depth support capability development and innovation. China's rapid innovation trajectory provides an ideal research setting for examining how international networks shape firm-level capabilities. As Chinese firms face increasing pressure to innovate amid resource constraints and rising trade tensions with the U.S., the role of external networks becomes crucial for accessing advanced technologies and developing strategic collaborations. Although China's unique institutional and economic environment provides the primary analytical framework for this study, the mechanisms identified here, particularly how firms leverage network breadth and depth to overcome capability constraints, are likely relevant in other emerging markets characterized by limited internal resources, institutional uncertainty, and an increasing need for connectivity with global innovation ecosystems. Emerging economies such as India, Brazil, and South Africa share many of these structural conditions, suggesting that the study's findings may have broader applicability for understanding how firms in similar environments build capabilities and achieve innovation outcomes.

The study contributes to the literature in several important ways. First, it advances global strategy research by theorizing how international network breadth and depth differentially shape dynamic capability development and innovation outcomes, offering a more granular understanding of external resource orchestration. Second, it bridges theoretical gaps by integrating the ERBV with the dynamic capabilities perspective, offering a novel framework for understanding the interplay between external networks and internal resource orchestration. Third, it extends the literature on institutional voids by demonstrating how emerging market firms mobilize international ties to compensate for domestic resource deficiencies. Finally, it provides empirical insights into the heterogeneous innovation strategies of emerging market firms by showing how distinct network configurations enable incremental and radical innovation.

[5] In this study, we define international networks as structured sets of business relationships that a firm develops and maintains with foreign strategic partners to achieve mutual goals and create value through international collaboration. These networks may arise from a wide range of motives and objectives and can take various forms of international inter-firm strategic partnerships (ISPs), including formal equity joint ventures and informal cooperative arrangements between firms from different economies (cf. Luo, Shenkar, & Gurnani, 2008). Such partnerships may span vertical and horizontal boundaries. However, this study focuses on providing an overarching framework for international networking and thus, it does not provide a detailed comparison of the different forms of ISPs through which these networks emerge. We leave this issue for future research.

2. Theory and hypotheses development

2.1. Extended RBV of the emerging market firms

The theoretical foundation of this study is rooted in the ERBV, which builds on conventional RBV (Barney, 1991; Grant, 1996; Wernerfelt, 1984) and the relational view (Dyer & Singh, 1998). The conventional RBV posits that firm-specific heterogeneity in unique resources and capabilities explains differences in strategic behavior, competitive advantage, and performance outcomes (Barney, 1991; Martin, Javalgi, & Ciravegna, 2020). Resources or capabilities must be valuable, rare, imperfectly imitable, and difficult to substitute (VRIN) to confer a competitive advantage and generate superior firm performance (Barney, 1991).

However, RBV-based research has been criticized for its limitations, particularly its focus on internal resources, often overlooking the potential of externally acquired knowledge and resources through partnerships and networks (Arya & Lin, 2007; Lavie, 2006; Sinkovics, Sinkovics, Lew, Jedin, & Zagelmeyer, 2015). This limitation is particularly relevant for emerging market firms, which operate frequently under conditions of resource scarcity and institutional voids (Khan, Lew, & Marinova, 2019). The ERBV extends the RBV by recognizing that strategically valuable resources can also lie outside the firm's boundaries to address these limitations. It emphasizes the importance of external resources embedded in international networks, including alliances, partnerships, and collaborations, as critical sources for capability development, particularly for firms facing institutional voids and resource deficits (cf. Khan et al., 2018).

Thus, the ERBV integrates two perspectives: it acknowledges a firm's internal efforts to develop unique resources while emphasizing the strategic value of searching for and acquiring external network resources. These external resources play a significant role in capability development, ultimately contributing to competitive advantage and long-term success (Alinaghian & Razmdoost, 2018; Lanzolla & Markides, 2021; Xiao, Lew, & Park, 2021). In this regard, the breadth and depth of a firm's international network can be viewed as mechanisms or platforms through which external resources are accessed and integrated into the firm's resource base, supporting the development of ordinary and dynamic capabilities. Emerging market firms can overcome internal resource constraints and develop capabilities that align with dynamic market demands by leveraging resources from global networks.

The ERBV argues that firms can develop unique, hard-to-replicate capabilities through international learning and strategic linkages with global partners. These linkages provide access to resources that enhance competitive advantage and enable context-specific capability building difficult for rivals to imitate (Alinaghian & Razmdoost, 2018; Lanzolla & Markides, 2021).

Building on this foundation, the present study applies the ERBV to explore how external network resources contribute to the development of ordinary and dynamic capabilities and how these capabilities affect innovation outcomes. The conceptual framework (illustrated in Fig. 1) proposes that international learning and network-building are key drivers of capability enhancement, leading to superior innovation outcomes. Specifically, global networks offer firms access to advanced technologies, strategic knowledge, and collaborative opportunities, resources that allow firms to respond more quickly and effectively to environmental changes. In doing so, the ERBV provides a more nuanced view of how emerging market firms can develop critical capabilities by harnessing international learning and external partnerships. This approach addresses the limitations of the conventional RBV and highlights the central role of external network resources in enhancing innovation and overall firm performance.

2.2. Hypotheses development

2.2.1. International network searching, ordinary capabilities, and dynamic capabilities

A long tradition of research in the RBV and related capability-based perspectives highlights the importance of developing organizational capabilities to achieve superior firm performance (Barney, 1991; Wernerfelt, 1984). However, a gap remains in empirical research on the development of different types of capabilities within international firms, particularly those based in emerging markets. RBV frameworks underscore the significance of resources in building organizational capabilities (Chandler & Hanks, 1994; Lieberman & Montgomery, 1988; Peteraf, 1993; Porter, 1991). Nevertheless, empirical evidence on firm-specific capabilities in emerging market firms remains limited (Dutta, Narasimhan, & Rajiv, 2005; Khan *et al.* 2019; Lieberman & Montgomery, 1988). This study extends this line of inquiry by examining how the unique attributes of emerging market firms' international networks are associated with both ordinary and dynamic capabilities.

We argue that the role of international networks is particularly salient for emerging market firms. Such firms often use international expansion as a springboard to acquire the resources and knowledge needed to overcome their disadvantaged resource positions (cf. Li, Fan, Kumar, & Ananthram, 2024). Unlike their counterparts in advanced economies, emerging market firms typically lack strong home-country-based resources (Doz, Santos, & Williamson, 2001; Luo & Tung, 2007; Mathews, 2006). Network breadth provides access to diverse technological and market resources, supporting strategic experimentation and knowledge recombination, whereas network depth emphasizes relational trust and the transfer of tacit knowledge, thereby enhancing operational efficiency. Accordingly, international networks facilitate distinct learning activities aimed at acquiring resources and knowledge from multiple external sources (Doz et al., 2001; Khan et al., 2018). Building valuable international networks is therefore closely associated with resource-searching and learning behaviors.

The springboard perspective on internationalization suggests that one of the primary motivations of emerging market multinationals is to search for and acquire unique external technological resources and knowledge from international partners in order to enhance their competitive capabilities (Li et al., 2024; Luo & Tung, 2007, 2018). We

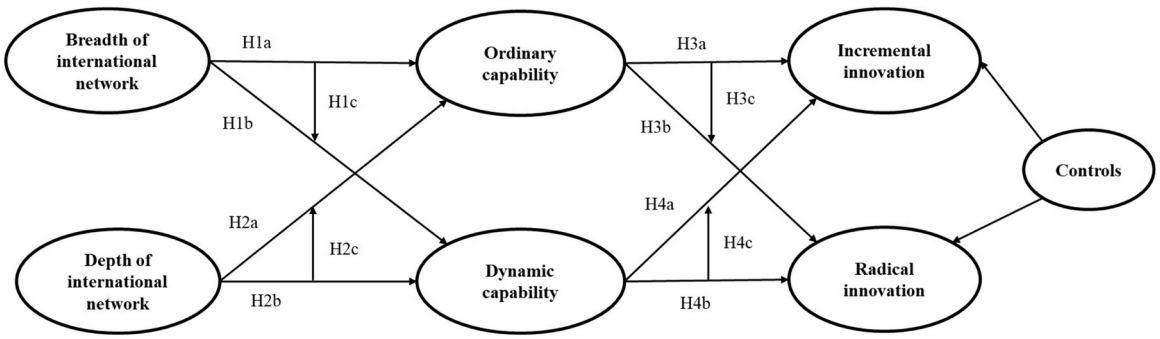

Fig. 1. Conceptual framework.

posit that the attributes of emerging market firms' international networks (e.g., breadth and depth) are systematically related to their capability-building efforts aimed at acquiring critical resources. Given the latecomer disadvantages and capability voids these firms often face (Wang, Luo, Lu, Sun, & Maksimov, 2014), they cannot rely solely on internal learning mechanisms to develop strategically important assets and knowledge. Instead, they must compensate for internal resources and knowledge deficiencies through external international learning.

According to the RBV, tangible and intangible resources are critical determinants of competitive advantage and performance heterogeneity among firms (Barney, 1991). The RBV further emphasizes that capability development plays a pivotal role in linking firm resources and strategic assets to competitive advantage and performance outcomes (Porcu, del Barrio-Garcia, Kitchen, & Tourky, 2020; Shenkar, Tallman, Wang, & Wu, 2022). Thus, capability development acts as an important bridge through which a firm's knowledge-based resources are translated into competitive advantage and superior performance. Specifically, it connects the possession of resources to value creation and sustained firm performance. Recent literature in the extended RBV underscores an additional source for VRIN resource development, namely, a firm's commitment to searching for and acquiring external resources from network partners (Lanzolla & Markides, 2021; Lavie, 2006). Extending this logic, international networks serve as complementary or alternative mechanisms through which firms exploit valuable learning opportunities and access strategically important resources. Given the broad consensus in IB literature regarding the learning and knowledge-seeking motivations of emerging market firms, such networks are expected to be closely associated with capability development and the acquisition of strategic assets (Khan et al., 2018, 2019; Luo & Tung, 2018; Okada, 2004).

However, prior research suggests that firms may respond differently to external opportunities and challenges (Conner, 1991; Eisenhardt & Martin, 2000). Accordingly, this study examines whether and how differential characteristics of international networks are associated with distinct organizational capabilities among emerging market firms. Specifically, we explore how two key capabilities, ordinary and dynamic, are associated with two *network attributes*: *breadth and depth*.

International network breadth refers to the number of external relationships and search channels a firm engages with to acquire valuable, unique technological resources and knowledge from global partners (Laursen & Salter, 2006; Xiao *et al.* 2020). In contrast, international network depth captures the extent to which a firm is deeply embedded in its global partnerships, emphasizing close ties and long-term interactions (Laursen & Salter, 2006; Xiao et al., 2020). The international network breadth is distinct from international network depth. While international network depth involves exploring external technological resources and knowledge more deeply by being thoroughly engaged in global networking searching and committed to enhancing the closeness of the networks with their global business partners, international network breadth emphasizes the commitment and efforts made by a firm to establish as many networks or linkages as possible with broad, new, and distinct external business partners (Leiponen & Helfat, 2010; Makri, Hitt, & Lane, 2010; Xiao et al., 2020).

Open innovation research suggests that firms unable to develop or generate new technological resources and knowledge internally may be more strongly committed to broadly searching for external knowledge from partners (Ferreras-Méndez et al., 2015; Garriga, von Krogh, & Spaeth, 2013). George, Zahra, Wheatley, and Khan (2001) argue that, to acquire novel knowledge and resources, firms must actively engage with a wider range of external partners. However, prior studies have produced conflicting findings regarding the effects of search breadth on organizational capability development and firm performance. For example, using a sample of 102 Spanish biotechnology firms, Ferreras-Méndez et al. (2015) found that while the depth of external knowledge search contributed positively to absorptive capabilities, no significant effect was observed for breadth.

These conflicting findings suggest that prior research has not fully examined the specific conditions under which particular attributes of external knowledge search become more or less important. The breadth and depth of international networks may therefore have differential effects depending on contextual conditions. To address this gap, we theorize and empirically examine how the breadth and depth of international networks contribute differently to the development of organizational capabilities by assessing their distinct roles in shaping ordinary and dynamic capabilities.

We argue that while these two dimensions of network engagement are relevant for both ordinary and dynamic capabilities, they are likely to play distinct but complementary roles. The breadth of international networks introduces diverse combinations of external knowledge, thereby expanding a firm's opportunity set and fostering novelty, variation, and adaptability, core elements of dynamic capabilities. In contrast, the depth of international networks facilitates the assimilation, refinement, and integration of knowledge, thereby reinforcing ordinary capabilities. Together, network breadth and depth form a synergistic foundation that enables firms to sustain their current competitive position through ordinary capabilities while simultaneously developing dynamic capabilities for long-term renewal and success.

Importantly, these dimensions of international networks do not hold equal importance across all types of organizational capabilities (cf. Katila & Ahuja, 2002). *Breadth* is theorized to be more salient for generating variation and novelty essential for dynamic capability development, whereas *depth* is more closely related to process efficiency, skill enhancement, and quality improvement, key elements of ordinary capabilities. This distinction is particularly salient for emerging market firms, which often face resource and knowledge constraints. For these firms, depth is especially valuable for catching up in operational efficiency, manufacturing expertise, and improvements in product or service quality. However, without sufficient breadth, they may fail to access the novel resources and knowledge combinations necessary to build dynamic capabilities that underpin long-term adaptability and competitive renewal (e.g., tech firms needing to pivot rapidly).

Firms that scan and search for external knowledge by cultivating networks with diverse global business partners tend to have greater opportunities to access and learn from a wider pool of competitive and strategically important resources. For example, George et al. (2001) examined 2456 alliances formed by 143 biopharmaceutical firms and found that high-tech firms, such as those in biotechnology, can acquire new and valuable knowledge critical for capability development. Knowledge obtained through wide-ranging strategic networks enables firms to expand their knowledge base and develop new products.

Importantly, the breadth of international network search is theorized to be particularly relevant for dynamic capabilities. By building and maintaining connections with a wide array of heterogeneous partners, firms increase their exposure to diverse knowledge domains, expand their search scope, and enrich their knowledge base through the "selection effect of variation" (Katila & Ahuja, 2002, p. 1185). Broad international networks provide distinctive variations that expand a firm's portfolio of problem-solving options and facilitate beneficial resource recombinations (Katila & Ahuja, 2002). In this way, network breadth effectively introduces novelty by adding new elements or generating advantageous combinations of diverse knowledge sources (Katila & Ahuja, 2002). This diversity enhances a firm's ability to recognize and seize new opportunities and reconfigure resources, which are key dimensions of dynamic capabilities. While broad network search may also support ordinary capabilities, its principal value lies in its stronger association with flexibility and access to new knowledge sources. Consequently, international network breadth is expected to be more strongly associated with dynamic capabilities than with ordinary capabilities by exposing firms to diverse knowledge sources. Thus, we suggest the following:

Hypothesis 1a. : The breadth of international networks is positively

associated with the development of a firm's ordinary capabilities.

Hypothesis 1b. : The breadth of international networks is positively associated with the development of a firm's dynamic capabilities.

Hypothesis 1c. : The breadth of international networks is more strongly associated with the development of a firm's dynamic capabilities than with its ordinary capabilities.

By contrast, the depth of international networks, characterized by repeated, intensive interaction and deep involvement with specific global business partners, is expected to be more strongly associated with the refinement of ordinary capabilities. Close and enduring relationships with global partners foster trust, facilitate ongoing communication, and encourage knowledge sharing, enabling firms to assimilate and apply external knowledge better (Xiao et al., 2020). Such ties reduce the risks of misinterpreting tacit knowledge and help improve existing processes, operational skills, and product or service quality (Xiao et al., 2020). These benefits of deep international networks align more closely with the development and strengthening of ordinary capabilities.

However, while deep and trust-based partnerships foster stability, they may limit a firm's exposure to radically new or strategically sensitive knowledge, which are critical for developing and renewing dynamic capabilities. Deeply embedded networks can restrict access to novel ideas (Hansen, Mors, & Løvås, 2005) by locking firms into narrow social resources and shared routines (cf. Gargiulo & Benassi, 2000). In particular, over-embeddedness may be associated with redundancy and reduced exposure to new ideas and novel information (Burt, 2004; Granovetter, 1973; Uzzi, 1997), reinforcing well-established knowledge that supports ordinary capabilities rather than dynamic capabilities. Additionally, partners in long-standing, reciprocal relationships may hesitate to share disruptive knowledge due to concerns about opportunism or shifts in power dynamics (Contractor, Woodley, & Piepenbrink, 2011). These concerns can further constrain a firm's capacity to build and renew dynamic capabilities.

In summary, while deeply embedded networks are likely to be positively associated with the acquisition of established resources and ordinary capability development, they may inherently limit the flow of novel, radical knowledge essential for dynamic capability development. Consequently, while deeply embedded networks are valuable for acquiring and applying established resources that strengthen ordinary capabilities, they may inherently limit the flow of novel, radical, or disruptive knowledge. This emphasis on established routines and familiar resources, rather than on exploring new possibilities, ultimately constrains a firm's ability to build and renew dynamic capabilities. This constraint stands in contrast to the broader knowledge exposure enabled by network breadth, which is more conducive to dynamic capability development. This discussion leads us to propose the following hypotheses:

Hypothesis 2a. : The depth of international networks is positively associated with the development of a firm's ordinary capabilities.

Hypothesis 2b. : The depth of international networks is positively associated with the development of a firm's dynamic capabilities.

Hypothesis 2c. : The depth of international networks is more strongly associated with the development of a firm's ordinary capabilities than with its dynamic capabilities.

2.3. Organizational capabilities, incremental innovations, and radical innovations

Organizational capabilities, which encompass ordinary and dynamic capabilities, are fundamental to supporting firm innovation. Innovation offers firms opportunities to achieve sustainable competitive advantages and improve performance (Bhunian, Menguc, & Bell, 2005; Chen, Lin, & Chang, 2009; Im & Workman, 2004). Prior research strongly advocates the development of capabilities as being closely linked to competitiveness and innovativeness (Park & Xiao, 2020; Wu, Chen, & Jiao, 2016; Zheng, Zhang, & Du, 2011). Extending this line of research, scholars argue that variations in firm performance can often be attributed to differences in organizational capabilities (Cohen & Levinthal, 1990; Eisenhardt & Martin, 2000; Lane, Koka, & Pathak, 2006; Teece, 2007; Winter, 2003; Zahra & George, 2002).

While resources are essential inputs to competitive advantage (Barney, 1991), capabilities differ from resources because they are actively developed and enhanced through resource deployment (Yeoh & Roth, 1999). Resources, whether tangible or intangible, must be configured and transformed effectively into unique organizational capabilities to drive sustainable competitive advantages (Amit & Schoemaker, 1993; Mahoney & Pandian, 1992; Penrose, 1959). For example, Zheng et al. (2011) found that network embeddedness significantly shapes dynamic capabilities, which contribute to innovative performance. Similarly, Yeoh and Roth (1999) demonstrated that capabilities play a critical role in linking firm resources to competitive advantage, with different types of capabilities contributing differently to sustainable competitive advantages.

Despite the acknowledged importance of organizational capabilities, the literature offers limited insights into how specific types, namely, ordinary and dynamic capabilities, relate to distinct innovation outcomes, such as incremental and radical innovations. Incremental innovations involve minor advancements in technology or product improvements that enhance customer benefits (Chandy & Tellis, 2000; McDermott & O'Connor, 2002). These innovations are usually "associated with recombination that consists of combined improved components that are already connected with a technical domain or from technologically proximate domains" (Keijl, Gilsing, Knoben, & Duysters, 2016, p. 1062) and serve the needs of existing customers and markets. They are less risky and rely more heavily on the exploitation of ordinary capabilities, through the recombination of existing resources to reduce manufacturing costs and improve processes or products. In contrast, radical innovations represent novel, state-of-the-art technological breakthroughs that offer substantially greater customer benefits (Chandy & Tellis, 2000; Zhou & Li, 2012). Ordinary capabilities, which focus on efficiency and refinement of existing products or processes, are especially aligned with incremental innovation because they support improvements to what already exists (Katila & Ahuja, 2002; Shane, 2000). Therefore, we expect the development and enhancement of ordinary capability are positively associated with incremental innovations, because incremental innovation is driven by a narrow focus on minor changes in technological advancement or small improvements within existing products or processes. A firm will be in a more advantageous position than its competitors through repeated use or a combinatory process of the firm's existing knowledge and technological resources by developing and utilizing its ordinary capabilities (Katila & Ahuja, 2002; Shane, 2000). However, these capabilities may play a limited role in radical innovation, which often demands new knowledge and creativity to address novel products or markets (Zhou & Li, 2012). As a result, firms must develop, accumulate, and manage new skills, knowledge, and capabilities tailored to emerging customers and markets.

In contrast, dynamic capabilities are theorized to be associated with the integration, reconfiguration, and transformation of resources, allowing firms to recognize and adapt to emerging opportunities and rapidly changing environments (Teece, 2007, 2012). They are generally considered unique and difficult-to-imitate competencies that support incremental and radical innovations. Specifically, dynamic capabilities help firms refine existing offerings and drive breakthrough innovations simultaneously by enabling rapid recognition and response to technological and market changes (Chmielewski & Paladino, 2007; Drnevich & Kriauciunas, 2011; Tallon, 2008). Thus, dynamic capabilities allow firms to reconfigure their resources in new ways, generate technological knowledge, and transform nascent opportunities into radical innovations.

Firms with strong dynamic capabilities are better equipped to scan, sense, and respond to dynamic environments, making them more likely to capitalize on emerging technologies and market demands. In summary, ordinary and dynamic capabilities are expected to exhibit distinct patterns of association with innovation outcomes: ordinary capabilities underpin incremental innovation through process refinement and cost reduction, while dynamic capabilities support incremental and radical innovation by enhancing adaptability and strategic transformation (cf. Teece, Peteraf, & Leih, 2016). This leads to the following hypotheses:

Hypothesis 3a. : A firm's ordinary capabilities are positively associated with incremental innovation.

Hypothesis 3b. : A firm's ordinary capabilities are less strongly associated with radical innovation.

Hypothesis 3c. : A firm's ordinary capabilities are more strongly associated with incremental innovation than with radical innovation.

Dynamic capabilities are also expected to be positively associated with incremental innovation by allowing firms to create, modify, and enhance existing ordinary capabilities (Dosi, Nelson, & Winter, 2000; Drnevich & Kriauciunas, 2011; Hoopes & Madsen, 2008; Winter, 2003), and by providing complementary resources that support continuous improvements in products, processes, services, or manufacturing skills essential for incremental advancements. Furthermore, dynamic capabilities promote radical innovation in two major ways. First, they help firms develop new manufacturing skills, new products, processes, or services by enabling effective search, recognition, and response to technological advancements and market opportunities (Chmielewski & Paladino, 2007; Makadok, 2010; Zou, Fang, & Zhao, 2003). Second, they strengthen a firm's ability to scan, detect, and respond effectively to rapidly changing environments more quickly and effectively than competitors (Chmielewski & Paladino, 2007; Drnevich & Kriauciunas, 2011; Tallon, 2008; Teece, 2012). Through these mechanisms, dynamic capabilities allow firms to reconfigure existing resources in novel ways, generate new knowledge, and pursue breakthrough ideas that lead to radical innovations. Accordingly, firms equipped with strong dynamic capabilities are better positioned to search, learn, and exploit emerging technologies, ideas, and market opportunities to achieve radical innovation.

Given these expected benefits, we argue that ordinary and dynamic capabilities play distinct roles in driving innovation outcomes. Ordinary capabilities are likely to contribute positively to incremental innovation by improving and enhancing existing products, services, and manufacturing processes. However, they are unlikely to support radical innovation. In contrast, dynamic capabilities are expected to positively influence incremental and radical innovation. They enable firms to refine existing offerings and develop entirely new products, services, and processes through breakthrough technologies, novel ideas, and emerging business opportunities. We also develop an alternative hypothesis that compares the effects of dynamic capabilities on incremental versus radical innovation to provide deeper insights. Accordingly, we propose the following hypotheses:

Hypothesis 4a. : A firm's dynamic capabilities are positively associated with incremental innovation.

Hypothesis 4b. : A firm's dynamic capabilities are positively associated with radical innovation.

Hypothesis 4c. : A firm's dynamic capabilities are more strongly associated with radical innovation than with incremental innovation.

3. Methods

3.1. Sample and data collection

We used data collected through a survey of manufacturing firms based in China conducted at the end of 2018 to test our hypotheses. China provides an appropriate research setting for examining how firms' organizational learning, facilitated by various international networking strategies, contributes to the development of different types of capabilities, which influence different innovation outcomes. As the world's second-largest economy by nominal GDP and the largest emerging economy, China has quickly emerged as a globally influential economic powerhouse. Its remarkable economic growth over the past four decades, coupled with accelerated integration into the global economy following its entry into the WTO in late 2001, has positioned China as a top destination for inward foreign direct investment (FDI) and a major source of outward FDI. For example, despite the COVID-19 pandemic and ongoing trade tensions with the United States, China was the largest recipient of FDI in 2020, attracting $163 billion in inflows. At the same time, it invested over $133 billion abroad, making it the world's largest global FDI investor that year.

However, as latecomers compared to globally competitive players, many Chinese firms have emerged from resource-constrained and institutionally challenging environments and continue to face significant difficulties in acquiring technological knowledge and managerial expertise domestically (Child & Rodrigues, 2005; Peng, 2012). These constraints make international networks critical for accessing advanced knowledge, cutting-edge technologies, and strategic resources essential for growth and competitiveness (Luo & Tung, 2007, 2018; Peng, 2012). In this context, Chinese firms have increasingly pursued global strategic partners to facilitate technology transfer, which enable them to acquire sophisticated manufacturing processes, product development capabilities, and privileged access to proprietary technologies and know-how (Dong & Glaister, 2006; He, Khan, & Shenkar, 2018; Luo, 2002; Luo *et al.* 2008; Peng, 2012). Such partnerships accelerate their ability to compete in high-value-added global markets, where domestic capabilities alone are often insufficient.

Beyond technology acquisition, Chinese firms actively leverage global knowledge networks to integrate cutting-edge technological insights, innovative managerial practices, and new market practices into their operations and new product development. These international networks serve as vital channels for acquiring strategic assets that assist Chinese firms develop and sustain long-term competitive advantage. Through inward and outward internationalization, they overcome domestic resource constraints and position themselves as active contributors to global innovation ecosystems, transforming external network resources into unique and firm-specific capabilities (Luo & Tung, 2007; He et al., 2018).

Moreover, China's transformation into an innovation-driven economy further underscores the relevance of this research setting. Over recent decades, China has made substantial progress in upgrading its manufacturing sector and enhancing global competitiveness through innovation. According to the 2024 Global Innovation Index by the World Intellectual Property Organization, China ranked 11th overall and first in innovation outputs, with 26 of the world's top 100 science and technology innovation clusters, an improvement from the previous year. As a result, China has rapidly emerged as a global innovation leader over the past decade. Remarkably, it remains the only middle-income economy among the top 30 most innovative countries in the world. Accordingly, many Chinese companies, such as Huawei, Alibaba, Lenovo, Tencent, and Xiaomi, now play a leading role in global technological and innovation landscapes. These firms have been consistently recognized to be among the world's top 50 most innovative companies by the Boston Consulting Group.

Taken together, these developments make China an exceptionally rich and dynamic context for examining what drives and promotes innovative capabilities of firms in China's emerging economy. Specifically, China offers unique insights into how firms build and leverage different types of innovative capabilities through international networking and how these capabilities translate into distinct innovation outcomes.

Given the lack of available archival data on firms' international network search activities, capability development, and specific types of innovation performance, we adopted a survey-based approach to collect data from Chinese manufacturing firms. This approach is appropriate because key constructs, such as network breadth, network depth, and dynamic capabilities, are closely tied to managerial perceptions and experiences, which archival data cannot adequately capture. Moreover, the use of survey-based assessments of interorganizational networks and capabilities has been widely validated in prior research (e.g., Aldibiki & El Ebrashi, 2023; Capaldo, 2007; Ma, Yao, & Xi, 2009; Schmid & Schurig, 2003; Zhou, Barnes, & Lu, 2010; Zhu, Su, & Shou, 2017). Subjective measures are especially reliable in this context because managers are directly involved in building and leveraging networks and capabilities and possess informed knowledge about their firm's relational structures and resource integration processes. We designed the survey instrument following an extensive literature review and the development of our theoretical model. First, the survey was developed in English and translated into Chinese with two independent bilingual translators. The authors then conducted back-translation to ensure conceptual equivalence (Hoskisson, Eden, Lau, & Wright, 2000; Xiao et al., 2020). We conducted a series of in-depth interviews with senior innovation managers from five Chinese manufacturing firms to further enhance content and face validity. During these interviews, we asked respondents to comment on the clarity, relevance, and completeness of the survey items and subsequently refined several items based on their feedback (Park & Xiao, 2021; Xiao et al., 2020).

The final version of the questionnaire was administered to the sample population, along with a personalized cover letter explaining the study's purpose and encouraging participation. We emphasized that there were no right or wrong answers and assured respondents of full anonymity and confidentiality. We offered an executive summary of the study upon completion to further encourage participation. We followed a key informant approach by selecting one top-level manager (e.g., chief executives, vice presidents, and senior managers) from each firm to serve as the respondent (Phillips, 1981). The key informant approach is advantageous if the selected survey participant has important information on the focal phenomenon and thus is uniquely qualified to answer the issues under study (Kumar, Anderson, & Stern, 1993). The survey questions are associated with strategic issues (Dyer & Hatch, 2006). Given that top managers are typically involved in strategic decisions, we believe they were best positioned to respond to questions related to international networking activities, innovation capabilities, and firm innovation performance. We obtained a random sample of 500 Chinese manufacturing firms engaged in innovation activities with the help of a commercial provider. Given the known challenges in collecting primary data from Chinese firms, researchers have highlighted the importance of leveraging guanxi (i.e., trusted local relationships) to encourage participation (Hoskisson et al., 2000; Peng & Luo, 2000). Following this recommendation, we administered questionnaires to respondents with the assistance of a professional research institute in China. We employed a two-wave, time-lagged survey design to mitigate potential concerns regarding common method variance (CMV) and reverse causality. To preserve respondent anonymity, no personally identifying information was collected. Instead, respondents were matched across the two waves using a self-generated identification code derived from personal but non-identifiable elements. In the first wave (October–November 2018), we collected firm-level characteristics and data on all independent variables (e.g., network breadth, network depth, ordinary capabilities, and dynamic capabilities). The second wave, conducted one month later, gathered data on the dependent variables (incremental and radical innovation) from the same respondents who completed the first wave. Through this process, we collected a total of 216 questionnaires, yielding a response rate of 43.5 %. After removing responses with missing or incomplete data, the final sample consisted of 198 firms, representing an effective response rate of 39.6 %. The average firm size was 1346 employees, with approximately 75 % employing fewer than 1000. The average operational age of the firms was 17 years, and 43.9 % were classified as technology-intensive.

We use a *t*-test to check for potential nonresponse bias and compare the mean differences between early versus late responding firms across key firm demographic characteristics, including firm size defined as the number of employees, and firm age measured as the length of operations. The *t*-test results indicated that all *t*-statistics were not statistically significant for the number of employees ($t = 0.278$, $p > 0.781$) and firm age ($t = 0.940$, $p > 0.349$) at $p < 0.05$, suggesting that nonresponse bias is less likely to be a serious problem in our study (Armstrong & Overton, 1977). In addition, CMV could potentially arise when using a survey approach to collect self-reported data from a single respondent in each firm. We conducted several procedures during the development and administration process of the questionnaire to minimize potential CMV. First, we designed our survey instrument by creating several different subsections and using different formats among the questionnaire items to reduce simple CMV-biased "straight line" responses (Chang, van Witteloostuijn, & Eden, 2010; Johnson, Rosen, & Djurdjevic, 2011). Second, to minimize the potential concern on CMV, we reversed the scaling on several key variable questions and randomized the order of the questions using unique survey software. Third, as noted previously, when administering the questionnaires, we informed all respondents of the anonymity and confidentiality of their responses in the cover letter. Nevertheless, we empirically examined the possibility of the CMV by performing a Harman's one-factor analysis (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). In doing so, we ran an exploratory factor analysis with items for all nine multi-item variables. The results of the unrotated factor analysis demonstrated that eigenvalues greater than one emerged, and the first factor accounted for only 28.74 %. However, CMV is unlikely to be a major concern because no general apparent factor in the unrotated factor analysis and no single factor accounted for a majority of the variance (less than 50 %). In addition, we further assessed the potential presence of CMV using the marker variable technique proposed by Lindell and Whitney (2001), including the respondents' tenure as the marker variable in the model. The results ($-0.126 < b_{tenure} < 0.128$, $p > 0.05$) suggest no evidence of CMV in our data.

3.2. Variable measurements

Unless otherwise noted, all the dependent and independent variables used in our study were measured using multiple items on a seven-point Likert scale (where 1 = "strongly disagree" and 7 = "strongly agree"). All the measures and items used in the study were adopted from established prior studies and modified specifically for this study, if necessary.

We developed the measure of *incremental innovation* variable using three items, building on Sheng and Chien (2016) and Subramaniam and Youndt (2005). This variable assess a firm's innovation performance in improving the quality or efficiency of existing products and reinforcing its current knowledge of product development over the past three years, relative to its main competitors. To measure *radical innovation*, we adopted three items based on the works of Sheng and Chien (2016) and Zhou and Li (2012), which assess a firm's degree of disruptive technological advances and innovative performance involved in radical innovation relative to its main competitors. Thus, radical innovation captures the firm's innovative performance by introducing innovation through the successful implementation of breakthrough and radically new technologies and solutions in its product development over the past three years relative to its main competitors. We built on the theoretical conceptualization of international networking consisting of two interrelated but distinct sub-dimensions: *international network breadth* and *international network depth* to measure a firm's international network resources. Building on prior work (e.g., Ferreras-Mendez et al., 2015; Garriga et al., 2013; Laursen & Salter, 2006; Leiponen & Helfat, 2010), the three items that measure the breadth of international network include the extent to which a firm expands international networks

extensively with as many foreign partners, whereas the four items measuring the international network depth indicate the extent to which the firm intensively and closely works with its foreign partners within their international networks (Xiao et al., 2020). We assess a firm's degree of *ordinary capability* by developing four items based on previous work (e.g., Collis, 1994; Dosi et al., 2000; Drnevich & Kriauciunas, 2011) and asking the responding firms if learning of knowledge and technology enhanced their existing capabilities in improving customer relationships, product quality and performance, business process, and ways of doing business. Following prior studies (e.g., Dosi et al., 2000; Drnevich and Kriauciunas, 2011; Qaiyum & Wang, 2018; Winter, 2003;), we measured the *dynamic capability* variable using four items by asking the responding firms to evaluate the extent to which they used learning of knowledge and technology to enable new capabilities in developing new products, implementing new business processes, creating new customer relationships, and creating new ways of doing business.

Finally, we controlled firm size, age, industry category, competitive intensity, environmental dynamism, and international learning orientation. Larger firms have greater resources and stronger capabilities that facilitate innovation. Following prior studies (e.g., Park & Xiao, 2020; Xiao et al., 2020), firm size was measured as the natural logarithm of total employees. Firm age (years in operation) was included to account for life cycle effects on innovation (e.g., Park & Xiao, 2020; Xiao et al., 2020). Industry category was represented by a dummy variable coded 1 for technology-intensive electronic information sectors and 0 otherwise. Competitive intensity was captured using three items assessing promotional wars, new competitive moves, and common competition (Cui, Griffith, & Cavusgil, 2005). Environmental dynamism was measured with four items reflecting rapid and unpredictable changes in the operating environment (Miller & Friesen, 1983; Park & Xiao, 2020). Finally, international learning orientation was assessed using four items capturing a firm's intent, propensity, and commitment to acquire knowledge from foreign partners (Liu, 2012; Xiao et al., 2020).

4. Empirical analyses and results

4.1. Construct reliability and validity testing

We used the partial least squares structural equation modeling (SEM) approach to test the hypotheses (Richter, Sinkovics, Ringle, & Schlägel, 2016). We first verified the construct reliability and validity by assessing the measurement mode. Table 1 presents the results. All Cronbach's alpha values (ranging from 0.762 to 0.817) and composite reliabilities (ranging from 0.863 to 0.891) exceed the 0.70 benchmark (Fornell & Larcker, 1981; Nunnally, 1978). The factor loadings of all scale items are statistically significant with values greater than 0.70. These results indicate the model has acceptable reliability (Chin, 1998; Hulland, 1999). Moreover, we assessed convergent validity by calculating the average variance extracted (AVE) values for the constructs, which are all greater than the 0.50 cutoff, demonstrating adequate convergent validity (Fornell & Larcker, 1981). We examined the square root of the AVE of each construct and compared this with the shared variance among all other constructs in the model to assess discriminant validity. The results reported in Table 2 indicate the square root of the AVE of each construct is greater than the correlations between the construct and all other constructs, providing an adequate discriminant validity of the measures (Fornell & Larcker, 1981). We compared each single factor's loading values with other indicators' cross-loadings to further assess the discriminant validity of the measures. The results indicated that each indicator loading was greater than the respective cross-loadings of other indicators, which provided further evidence of adequate discriminant validity of the measures. In addition, following the recommendation of prior work (e.g., Henseler, Ringle, & Sarstedt, 2015), we assessed correlations of the heterotrait-monotrait (HTMT) ratio, which confirmed the adequate discriminant validity for all constructs in the model. Lastly,

Table 1
Descriptive statistics and validity assessments.

Construct and indicators	*Mean*	*STD*	*FL*
Breath of international network (INB) (AVE= 0.693, alpha=0.778, CR=0.871)			
INB1. In comparison with our competitors, we can manage many foreign partnerships in the global market.	5.722	0.937	0.829
INB2. We have constantly spent substantial time and effort in networking with different international partners, including our suppliers, customers, competitors, consultants, commercial laboratories/ R&D enterprises, and research institutes.	5.566	1.130	0.846
INB3. We draw intensively from different international search channels or sources of innovative ideas.	5.576	0.877	0.821
Depth of international network (IND) (AVE= 0.637, alpha=0.811, CR=0.875)			
IND1. Personal networks of senior management provide our firm with important resources for internationalization.	5.869	0.889	0.782
IND2. Our firm commits considerably to key foreign partners or accounts.	5.995	0.873	0.823
IND3. Our firm has numerous pre-existing personal networks for internationalization	5.843	0.865	0.800
IND4. Our firm commits considerably to contacting our global partners frequently.	6.000	0.882	0.787
Ordinary capability (OC) (AVE= 0.637, alpha=0.811, CR=0.876)			
DC1. The newly acquired knowledge and technology enhance existing capabilities in maintaining and strengthening customer relationships.	5.742	1.005	0.795
DC2. The newly acquired knowledge and technology strengthen existing capabilities in improving product quality and performance.	5.859	0.932	0.800
DC3. The newly acquired knowledge and technology improve existing capabilities in managing and optimizing business processes.	5.818	0.886	0.795
DC4. The newly acquired knowledge and technology enhance existing capabilities in conducting business efficiently and effectively.	5.793	0.912	0.804
Dynamic capability (DC) (AVE= 0.637, alpha=0.811, CR=0.875)			
DC1. The newly acquired knowledge and technology enable new capabilities in developing new products.	5.379	1.070	0.781
DC2. Our newly acquired knowledge and technology enable new capabilities in implementing new business processes.	5.682	1.052	0.802
DC3. The newly acquired knowledge and technology enable new capabilities in establishing new customer relationships.	5.566	1.116	0.812
DC4. The newly acquired knowledge and technology enable new capabilities in creating new ways of doing business.	5.535	1.076	0.797
Incremental innovation (INI) (AVE= 0.685, alpha=0.772, CR=0.867)			
INI1: We regularly improve the efficiency and quality of our existing products compared to our main competitors.	5.621	1.031	0.851
INI2. We consistently strengthen our expertise in existing product improvement compared to our main competitors.	5.626	1.102	0.809
INI3. We continually refine and reinforce our knowledge to enhance and improve existing products compared to our main competitors.	5.611	0.993	0.822
Radical innovation (RAI) (AVE= 0.732, alpha=0.817, CR=0.891)			
RAI1. We create innovative products that significantly transform our existing offerings compared to our main competitors.	4.990	1.326	0.846
RAI2. We actively seek and implement new solutions to develop products that outperform those of our main competitors.	5.020	1.259	0.854
RAI3. We integrate cutting-edge technologies into product development relative to our main competitors.	4.924	1.287	0.867
Competitive intensity (CI) (AVE= 0.677, alpha=0.762, CR=0.863)			
CI1. Competition in our market is cutthroat.	5.702	0.952	0.801
CI2. There are many promotional wars in our market.	5.152	1.309	0.799

(*continued on next page*)

Table 1 (*continued*)

Construct and indicators	*Mean*	*STD*	*FL*
CI3. Other competitors can readily match anything that one competitor can offer in our market.	5.818	0.957	0.867
Environmental dynamism (ED) (AVE= 0.627, alpha=0.802, CR=0.870)			
ED1. The technology in our industry is changing rapidly.	4.556	1.448	0.796
ED2. This industry has frequent technological changes.	5.389	1.052	0.788
ED3. It is very difficult to predict where the technology in our industry will be in the next two to three years.	5.172	1.231	0.787
ED4. Overall environmental changes in our industry are unpredictable.	5.338	1.115	0.796
*ED5. In our market, changes are taking place continuously.			
*ED6. The change in customer needs in our industry is intense.			
Learning orientation (LO) (AVE= 0.631, alpha=0.806, CR=0.873)			
LO1. The explicit goals of learning from our foreign partners are stated during cooperation.	5.732	0.992	0.797
LO2. International collaboration is crucial for our firm to learn from our foreign partners.	5.838	0.873	0.798
LO3. Senior management commitment underscored the importance of learning during international cooperation.	5.843	0.964	0.788
LO4. Our firm has committed numerous resources to facilitate technological knowledge learning from foreign partners.	5.813	0.876	0.795

Note: AVE = average variance extracted, CR=composite reliability, STD = standard deviation, FL = factor loading. Detailed measurement items are omitted due to space constraints,. Details are available from the authors upon request. *Items removed from further analysis due to poor factor loadings.

path coefficients with their respective *t*-statistics and the coefficient of determination R^2. Fig. 2 provides the results of the structural equation model.[6] Fig. 2 shows the R^2 values (ranging from 0.280 to 0.404) for the respective four endogenous variables (e.g., ordinary capability, dynamic capability, incremental innovation, and radical innovation) suggest satisfactory explanatory power for our equation model.

For Hypotheses 1a and 1b, we find that international network breadth is positively associated with ordinary ($b = 0.289$, $p < 0.001$) and dynamic capabilities ($b = 0.522$, $p < 0.001$). These findings lend support to Hypotheses 1a and 1b. Notably, while international network breadth positively influences ordinary and dynamic capabilities, its impact on dynamic capabilities is substantially stronger than on ordinary capabilities (path coefficients: 0.522 vs. 0.289), thereby supporting Hypothesis 1c.[7] This finding provides strong support for Hypothesis 1c. In Hypotheses 2a and 2b, we predicted that international network depth would be positively associated with ordinary and dynamic capabilities development. Fig. 2 shows the depth of the international network is positively associated with ordinary capability ($b = 0.403$, $p < 0.001$), providing support for Hypothesis 2a. By contrast, the effect of international network depth on dynamic capability is positive but not statistically significant ($b = 0.096$, $p > 0.19$). Therefore, Hypothesis 2b is not supported. These findings suggest international network depth is positively associated with only ordinary capability, but not with dynamic capability. This non-significant effect may reflect over-embeddedness, where strong ties constrain novelty and induce lock-in. Alternatively, deep ties may promote trust and stability but inhibit the recombination of heterogeneous resources necessary for capability development. These dynamics suggest that while depth may support exploitation, it may be less conducive to the sensing and variation required for dynamic capability emergence. Because depth of the international network is positively related to ordinary ($b = 0.403$, $p < 0.001$) but not dynamic capability ($b = 0.096$, $p > 0.10$), Hypothesis 2c is supported, demonstrating that international network depth has a stronger effect on ordinary than on dynamic capabilities.[8]

Table 2
Construct correlations and discriminant validity.

Variables	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*
1. Firm size	1.000											
2. Firm age	0.314**	1.000										
3. Industry type	0.067	0.002	1.000									
4. Competitive intensity	-0.067	-0.012	0.146*	***0.823***								
5. Environmental dynamism	-0.029	-0.102	0.095	0.307**	***0.792***							
6. Learning orientation	0.069	0.028	0.056	0.325**	0.286**	***0.794***						
7. Breath of international network	-0.053	0.022	0.101	0.335**	0.383**	0.527**	***0.832***					
8. Depth of international network	-0.010	-0.013	0.132	0.248**	0.139	0.434**	0.372**	***0.798***				
9. Ordinary capability	0.065	0.049	0.229**	0.347**	0.230**	0.474**	0.439**	0.509**	***0.798***			
10. Dynamic capability	0.018	0.180*	0.150	0.417**	0.308**	0.565**	0.557**	0.291**	0.529**	***0.798***		
11. Incremental innovation	0.036	0.068	0.163*	0.226**	0.246**	0.273**	0.352**	0.173*	0.446**	0.436**	***0.828***	
12. Radical innovation	-0.115	0.021	0.113	0.297**	0.508**	0.285**	0.377**	0.065	0.264**	0.481**	0.302**	***0.856***

Note: $N = 198$. Values in italicized bold denote the square root of the average variance extracted (AVE) of each construct. *$p < 0.05$, **$p < 0.01$.

following prior work (Geisser, 1975; Stone, 1974), we assessed the predictive validity of all the latent constructs using Stone–Geisser's Q^2. The results indicated the cross-validated communality and redundancy values were greater than zero, providing evidence of predictive validity in the model (Fornell & Cha, 1994).

4.2. Hypotheses testing

Following Chin's (1998) recommendation, we empirically examined the hypotheses by performing a bootstrap analysis. We estimated the

[6] As a robustness check, we tested the hypotheses using a covariance-based SEM approach implemented in Amos, as well as regression estimations. The results from both the AMOS-based analyses and the regression models were quantitatively and qualitatively consistent with those obtained using the PLS-SEM approach. Due to space constraints, the detailed covariance-based Amos modeling and regression results are not reported here but are available from the authors upon request.

[7] Our robustness checks further confirm that the effect of international network breadth on dynamic capability is significantly stronger than its effect on ordinary capability ($p < 0.05$).

[8] Our robustness analyses further indicate that international network depth exerts a significantly greater influence on ordinary capabilities than on dynamic capabilities ($p < 0.05$).

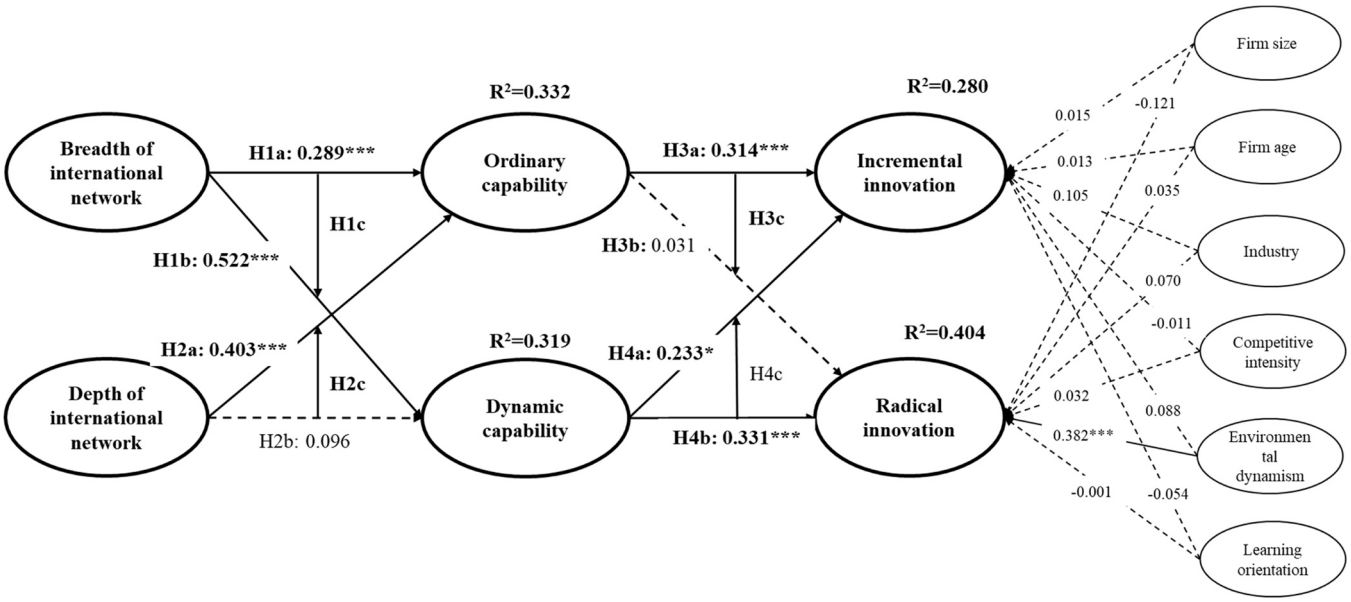

Fig. 2. Estimated results of a structural equation analysis. Note:Non significant paths were shown by a dotted line.*p < 0.05,**p < 0.01,***p < 0.001.

We test Hypotheses 3a-3c and 4a-4c regarding the effects of ordinary and dynamic capabilities on incremental and radical innovation. The results presented in Fig. 2 show that the coefficient of the ordinary capability corresponding to incremental innovation is positive and statistically significant ($b = 0.314$, $p < 0.001$), providing support for Hypothesis 3a. However, the coefficient of the ordinary capability corresponding to radical innovation is positive but not statistically significant ($b = 0.031$, $p > 0.60$), which is consistent with our hypothesized relationship. Therefore, we find support for Hypothesis 3b. Notably, while ordinary capability is positively associated with incremental innovation, its impact on radical innovation is not statistically significant, thereby supporting Hypothesis 3c.[9] The coefficients of the dynamic capability corresponding to incremental ($b = 0.233$, $p < 0.05$) and radical innovation ($b = 0.331$, $p < 0.001$) are positive and significant, thus supporting Hypotheses 4a and 4b. In particular, the results suggest that although dynamic capability is positively associated with incremental and radical innovations, it is even more strongly associated with radical innovation than with incremental innovation (respectively, $p < 0.001$ and $p < 0.05$). However, our additional robustness checks indicate that the effect of dynamic capability on incremental innovation does not differ significantly from its effect on radical innovation ($p > 0.11$). Therefore, Hypothesis 4c is not supported.

Overall, these results indicate that although a firm's dynamic capability is positively associated with incremental and radical innovation, its ordinary capabilities is positively associated with only incremental innovation. Therefore, although incremental innovation can be achieved by developing ordinary and dynamic capabilities, radical innovation can be achieved only by developing dynamic capabilities because sensing, seizing, and transforming capabilities are vital for meeting the needs of new customers and markets. Moreover, developing ordinary capabilities would not be helpful because it is not significantly associated with radical innovation. These findings lend support to our hypotheses by providing empirical evidence that ordinary and dynamic capabilities are not equally helpful for achieving different innovation outcomes.

[9] Our robustness checks further confirm the effect of ordinary capability on incremental innovation is significantly stronger than its effect on radical innovation ($p < 0.01$).

4.3. Supplementary analysis

While examining potential mediating effects in the model and discussing their implications in detail are beyond the scope of our study, we examine the possible mediating role of ordinary and dynamic capabilities, which we hope may provide a more comprehensive perspective on the phenomenon of interest in this study. In doing so, we estimated the possible role of either ordinary or dynamic capability in mediating the effects of breadth and depth of international network on incremental and radical innovation by following the approach recommended by Zhao, Lynch, and Chen (2010). We summarized the results of mediating effects in Table 3. As shown in Table 3, the respective indirect effects ($a \times b$) of breadth ($b = 0.091$, $p < 0.01$) and depth of international network ($b = 0.127$, $p < 0.05$) on incremental innovation via ordinary capability were all positive and statistically significant. The results shown in Table 3 also indicated that the indirect effect of breadth of international network on radical innovation ($b = 0.173$, $p < 0.01$) via dynamic capability was positive and statistically significant. In addition, as shown in Table 3, we did not find a statistically significant direct effect of breadth ($b = 0.111$, $p > 0.20$) or depth of international network ($b = -0.089$, $p > 0.28$) on incremental innovation. The mediated effect ($a \times b$) was positive and statistically significant, whereas the direct effect (path c) of breadth or depth of international network on incremental innovation was statistically insignificant, our results supported a full mediating role (indirect-only mediation) of ordinary capability in relationships of breadth and depth of international network with incremental innovation. Similarly, we also found a fully mediating role (indirect-only mediation) of dynamic capability in the relationships between breadth of international network and radical innovation because only the mediated effect ($a \times b$) of breadth of international network on radical innovation was observed. By contrast, because the mediated effect ($a \times b$) of depth of international network on radical innovation via ordinary capability was statistically insignificant ($b = 0.012$, $p > 0.60$), whereas the direct effect (path c) of depth of international network on radical innovation was negative and statistically significant ($b = -0.136$, $p < 0.05$), our results failed to support a mediating role (direct-only non-mediation) of ordinary capability in the relationship of depth of international network with radical innovation.

As an additional supplementary analysis, we examined the interplay between ordinary and dynamic capabilities and their relationships with different innovation performances. However, our findings revealed no

Table 3
Results of structural model assessment for direct and indirect effects.

Effects	*Estimates*	*P-values*
Direct effects		
Breath of international network → Ordinary capability	0.289	***
Breath of international network → Dynamic capability	0.522	***
Breath of international network → Incremental innovation	0.111	n.s.
Breath of international network → Radical innovation	0.063	n.s.
Depth of international network → Ordinary capability	0.403	***
Depth of international network → Dynamic capability	0.096	n.s.
Depth of international network → Incremental innovation	-0.089	n.s.
Depth of international network → Radical innovation	-0.136	*
Ordinary capability → Incremental innovation	0.314	***
Ordinary capability → Radical innovation	0.031	n.s.
Dynamic capability → Incremental innovation	0.233	*
Dynamic capability → Radical innovation	0.331	***
Indirect effects		
Breath of international network → Ordinary capability → Incremental innovation	0.091	**
Breath of international network → Ordinary capability → Radical innovation	0.009	n.s.
Breath of international network → Dynamic capability → Incremental innovation	0.122	n.s.
Breath of international network → Dynamic capability → Radical innovation	0.173	**
Depth of international network → Ordinary capability → Incremental innovation	0.127	*
Depth of international network → Ordinary capability → Radical innovation	0.012	n.s.
Depth of international network → Dynamic capability → Incremental innovation	0.022	n.s.
Depth of international network → Dynamic capability → Radical innovation	0.032	n.s.

Notes: $N = 198$. n.s. = non-significant. $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$.

statistically significant interaction effect of ordinary and dynamic capabilities on either incremental ($b = -0.023$, $p > 0.76$) or radical innovation ($b = 0.081$, $p > 0.15$). We also investigated whether the effects of network characteristics on capability development differ by firm size, but did not observe any statistically significant differences ($p > 0.05$). This result may reflect the nature of our sample, which consists primarily of relatively large firms. Moreover, the effects of network characteristics such as network breadth and depth may not hold universally. We address the effects by performing additional robustness checks to explore possible nonlinear effects. Interestingly, the findings provide nuanced insights: network breadth exhibits an inverted U-shaped relationship with dynamic capabilities, but not with ordinary capabilities ($p < 0.01$). In contrast, network depth displays an inverted U-shaped relationship with ordinary capabilities, but not with dynamic capabilities ($p < 0.01$). These patterns indicate network breadth and depth yield diminishing returns. Beyond a certain point, increasing network breadth appears to hinder dynamic capability development, while excessive network depth constrains ordinary capability development. Collectively, these results highlight the complexity of capability development within interorganizational networks. While network diversity and intensity can be beneficial up to a point, overly extensive or embedded networks may introduce coordination costs, redundancy, or rigidity that counteract their potential advantages. This issue underscores the importance of managing network relationships strategically to balance the benefits of external connections with the internal costs of maintaining them.

5. Discussion and implications

This study was motivated by the aim of advancing understanding of how international network searching strategies influence firms' capability development and innovation outcomes. We empirically extend existing theory by examining how firms configure and leverage their international networks to enhance capability development by integrating the ERBV with the dynamic capabilities' perspectives. Drawing on data from technology-based firms in one of the world's largest emerging markets, China, we find that the breadth and depth of network search strategies play crucial roles in fostering organizational capabilities. Furthermore, these capabilities are positively associated with incremental and radical innovation outcomes, albeit in different ways. Taken together, our findings contribute to the growing literature on international learning, capability development, and innovation in emerging market firms.

5.1. Theoretical contributions

This study makes several important theoretical contributions to the existing literature.

First, it contributes to the understanding of how firm-level attributes of international network search strategies, specifically network breadth and depth, facilitate the development of distinct types of organizational capabilities, such as ordinary and dynamic capabilities. While prior research has emphasized the role of international expansion and network ties in enabling innovation (Albis, Alvarez, & an García, 2021; Wang & Chung, 2020; Xu, Wu, Gu, & Raza-Ullah, 2023), relatively little empirical work has explored the nuanced effects of network search breadth and depth on capability building. By extending the ERBV, we highlight the critical role of international networks in emerging market contexts. In particular, we show that emerging market firms can leverage international learning and global business networks to develop unique capabilities through strategic linkages with global partners. These connections allow firms to acquire, adapt, and integrate critical resources that are valuable, rare, and difficult to imitate (Alinaghian & Razmdoost, 2018; Lanzolla & Markides, 2021). The external resources embedded in international networks serve as a foundation for developing globally oriented capabilities that are challenging for competitors to replicate. Unlike earlier studies that broadly emphasize the importance of external resources (Audretsch & Belitski, 2023; Felin, Kauffman, & Zenger, 2023; Hernandez, Lee, & Shaver, 2025; Kumar, Liu, & Zaheer, 2022), this study explicitly examines how network breadth and depth are associated with the development of distinct organizational capabilities, an area that remains underexplored. The study enhances our understanding of the resource-capability-innovation nexus by demonstrating how these attributes interact with capability-building processes. Our results provide novel insights into these relationships, demonstrating that network breadth and depth differentially influence the development of ordinary and dynamic capabilities. This finding aligns with research suggesting that various types of capabilities may affect firms in distinct ways (e.g., Drnevich & Kriauciunas, 2011). This study extends the RBV and dynamic capabilities perspectives by explicitly linking network search strategies to capability development. It highlights that resource possession alone is insufficient; firms must strategically engage in network search activities to transform resources into competitive capabilities that drive innovation.

Second, we extend existing research by integrating the international network search perspective with the literature on capability development. We find that network breadth, the diversity and range of international ties, supports the development of ordinary and dynamic capabilities by providing access to varied knowledge and resources, which in turn support incremental and radical innovation. Surprisingly, our findings indicate that network depth, which refers to the intensity of ties with a small number of global partners, is more closely associated with the enhancement of ordinary capabilities. While deep relationships enable efficient learning and the exploitation of existing resources for incremental innovation, they contribute little to the development of dynamic capabilities. These findings suggest deep ties may impose an *embedded disadvantage* (Arya & Lin, 2007; Lavie, 2006) by restricting firms' exposure to novel and cutting-edge knowledge and limiting their ability to develop new capabilities required to extend, modify, and create ordinary capabilities in fast-changing environments. These

findings contribute to ongoing debates on the balance between ordinary and dynamic capabilities (Drnevich & Kriauciunas, 2011) by highlighting the trade-offs firms face when configuring depth versus breadth in their global networks. In doing so, the study offers a more nuanced understanding of how international network configurations shape innovation performance.

Finally, this study addresses critical gaps in the literature. While prior studies have focused on specific capabilities (e.g., absorptive or dynamic) as antecedents or mediators of firm performance (Monferrer, Moliner, Irún, & Estrada, 2021; Robertson, Caruana, & Ferreira, 2023), limited attention has been given to the interplay between different types of capabilities and their respective impacts on innovation outcomes. We provide a more comprehensive framework that bridges this gap by distinguishing between ordinary and dynamic capabilities and linking them to incremental and radical innovations. Furthermore, our unexpected finding that network depth contributes little to dynamic capability development sheds light on the limitations of embedded relationships and invites further exploration of the strategic trade-offs in network formation. It is also important to recognize that incremental and radical innovations, while conceptually distinct, can coexist within the same organization as complementary drivers of overall innovative performance. Consequently, firms may benefit from pursuing incremental and radical innovations simultaneously to achieve sustained competitive advantages.

Collectively, these theoretical contributions advance the ERBV and the literature on organizational capability development by demonstrating how emerging market firms engage strategically in international network searching to transform external knowledge and resources into unique, inimitable capabilities. These capabilities serve as foundations for short-term competitive position and long-term innovation leadership.

5.2. Managerial implications

Our findings also carry important practical implications for managers seeking to optimize their firms' international network searching strategies and capability development efforts.

First, managers of emerging market firms must recognize the distinct roles of breadth and depth in network searching. Firms should engage in broad and deep network searching to strengthen their ordinary capabilities and enhance incremental innovations. These ordinary activities help firms exploit existing resources, refine processes, and improve existing products and services. However, for radical innovations, managers should prioritize broad network searching to build dynamic capabilities that enable firms to explore breakthrough technologies and seize nascent market opportunities. Over-committing to deep ties with a limited set of global partners may inhibit the flexibility and agility required to achieve radical innovations.

Second, managers must align their international network searching strategies with their firms' innovation objectives while considering the unique industry contexts. For example, in dynamic, innovation-driven industries such as high-tech manufacturing or biotechnology, cultivating network breadth is especially beneficial, because access to diverse international networks enables firms to tap into cutting-edge knowledge sources, emerging technologies, and evolving market opportunities, which are key ingredients for dynamic capability development and radical innovation. Conversely, in more mature and stable industries where efficiency and quality improvement are more important, firms may benefit from emphasizing network depth, fostering strong, trust-based relationships with a smaller number of international strategic partners to secure reliable collaboration and enhance ordinary capabilities. These insights provide actionable guidance for firms navigating the complexities of international learning and capability development.

Third, this study's findings indicate that broad networks enable organizations to develop diverse capabilities, which in turn foster incremental and radical innovations, while deep networks mainly enhance established ordinary capabilities, supporting incremental innovation but offering limited potential for radical advancements. These insights have important implications for the broader debate in the IB literature on how firms manage geopolitical risks (Luo, 2021, 2024). Firms may need to adjust their reliance on network breadth and depth dynamically depending on market uncertainties. Specifically, managers should design their network strategies with a clear understanding of how external environmental conditions shape the effectiveness of breadth and depth strategies. Under volatile and uncertain environments, such as geopolitical tensions or global disruptions, network breadth offers flexibility and resilience by reducing dependency on individual partners and enabling rapid adaptation to shifting environmental conditions. Expanding networks in such contexts can provide access to diverse knowledge and technologies, helping firms seize emerging opportunities and mitigate risks across markets. Conversely, being overly dependent on a limited set of international partners can create significant vulnerabilities when those relationships are disrupted. Maintaining a broader and more diverse network enhances strategic flexibility and resilience. In contrast, in stable markets with strong institutional support, network depth can yield superior returns through long-term collaboration, trust-based investments, and efficient exploitation of institutional mechanisms. A balanced approach may be most effective in environments characterized by weak institutional support or institutional voids. Managers may need to adopt a more balanced approach by leveraging breadth to identify alternative options while relying on depth to build trust where formal safeguards are lacking.

Finally, for managers of emerging market firms new to international expansion, our findings offer a roadmap for balancing network searching activities. Importantly, the managers should consider their firm's state of development to guide their optimal network strategies. During early international expansion, developing network breadth is usually critical for accessing diverse knowledge, learning from diverse partners, and identifying the most promising opportunities essential for building dynamic capabilities. As firms mature, deepening ties selectively with key partners can enhance ordinary capabilities and sustain incremental innovation improvements. This strategic evolution from breadth to depth-oriented network searching can leverage long-term and high-value partnerships to facilitate deeper knowledge exchange, joint innovation, and resource integration necessary for sustained competitive advantage.

5.3. Limitations and future research directions

This study has several limitations that provide opportunities for future research. First, our data, which are drawn from Chinese technology-based manufacturing firms, may limit the generalizability of our findings. Future research could validate our framework using data from firms in other emerging and advanced economies, particularly in service industries or knowledge-intensive sectors. Such studies could examine additional moderating factors, such as institutional quality or environmental dynamism, which could further refine understanding of the conditions under which network breadth and depth are most effective in supporting different types of innovation. Second, we did not capture the multidimensionality of dynamic capabilities, such as sensing, seizing, and transforming. Future research could explore how these dimensions interact to influence incremental and radical innovations (cf. Schulze & Brusoni, 2022; Teece, 2007, 2018). Examining the interplay between capability heterogeneity and innovation outcomes could further refine our understanding of how firms differentiate themselves through unique capability configurations. Third, while our study highlights the important roles of network breadth and depth in

shaping firms' ordinary and dynamic capabilities, these effects are unlikely to be universal. Several boundary conditions may influence when and how network characteristics translate into capability development.[10] For instance, the benefits of network breadth may depend on a firm's absorptive capacity, such as its ability to recognize, assimilate, and apply external knowledge (Cohen & Levinthal, 1990). Firms with higher absorptive capacity can be better positioned to process and integrate the diverse and complex knowledge accessed through broad networks. Conversely, firms with lower absorptive capacity may have difficulty internalizing external knowledge effectively, limiting the benefits of network breadth and constraining dynamic capability development. The value of network depth may also be amplified in contexts characterized by institutional voids (Palepu & Khanna, 1998) or in environments where tacit knowledge is central to competitive advantage (Dhanaraj, Lyles, Steensma, & Tihanyi, 2004). In such settings, strong and trust-based relationships can mitigate uncertainty and facilitate effective knowledge transfer. Although our data do not allow for an empirical examination of these moderating factors, recognizing these contingencies provides critical context for interpreting our results and offers promising avenues for future research. Future research could investigate how different institutional environments, absorptive capacity, nature of knowledge, and types of network structures (e.g., strategic alliances versus contractual entry modes) shape capability development and innovation outcomes. Fourth, this study highlights the distinct roles of network breadth and depth. However, we were unable to examine other network structures, such as formal and informal network ties because of data limitations (cf. Idris & Saridakis, 2018). Future research could extend our framework by investigating how various types of network ties (e.g., formal, informal, interpersonal, and ethnic networks) are associated with the development of specific organizational capabilities and innovation outcomes. Future studies could also explore whether the heterogeneity of network ties moderates the relationships among network breadth, depth, and organizational capabilities or innovation performance. Exploring how firms balance internal resource development with external knowledge acquisition would also be a valuable extension. Finally, like all studies, the cross-sectional research design limits the ability to establish strong causality between international network configurations, capability development, and innovation outcomes. Although the use of a two-wave, time-lagged design in this study helps reduce common method bias and alleviate some causality concerns, it does not eliminate them completely. Issues such as reverse causality, omitted variables, and measurement errors may still exist, and therefore, any causal interpretations should be made with caution. Despite these data limitations, this study advances understanding of the mechanisms linking networks, capability development, and innovation performance (cf. Saridakis, 2024). Nonetheless, potential sources of endogeneity remain in key relationships, including reverse causation (for instance, innovation outcomes potentially shaping network relationships and capabilities), omitted variables bias (such as unobserved organizational or environmental factors influencing networks and innovation), and measurement errors stemming from the operationalization of key constructs. Future research could adopt longitudinal designs and techniques to address these limitations, capture temporal dynamics, illuminate the evolutionary processes underlying these relationships, and address the endogeneity concerns more effectively (cf. Saridakis, 2024). Incorporating experimental or mixed method approaches that integrate quantitative data with in-depth qualitative insights could also provide a more comprehensive understanding of the mechanisms through which network breadth and depth shape firms' capabilities and innovation outcomes.

[10] We wish to acknowledge an anonymous reviewer's comments for suggesting these discussions.

6. Conclusion

This study offers important insights into how firms, particularly those from emerging markets, can strategically leverage international network search strategies to develop organizational capabilities and drive innovation outcomes. Our findings show that network breadth enhances both ordinary and dynamic capabilities, whereas network depth primarily strengthens ordinary capabilities, highlighting the asymmetric and nuanced effects of network configuration. Ordinary capabilities primarily support incremental innovation, while dynamic capabilities are critical for both incremental and radical innovation, with a stronger effect on radical outcomes. By elucidating these mechanisms, this research advances theory, informs managerial practice, and sets a foundation for future inquiry into the dynamic interplay between networks, capabilities, and innovation.

Funding

This research received no external funding.

Conflicts of Interest

The authors declare no conflict of interest.

Acknowledgments

This work was supported by Hankuk University of Foreign Studies Research Fund.

Data availability

The data that has been used is confidential.

References

Albis, N., Alvarez, I., & an García, A. (2021). The impact of external, internal, and dual relational embeddedness on the innovation performance of foreign subsidiaries: Evidence from a developing country. *Journal of International Management, 27*(4), Article 100854.

Aldibiki, A., & El Ebrashi, R. (2023). The role of networks and capabilities in the internationalization of SMEs in North Africa: The case of Egyptian SMEs. *Thunderbird International Business Review, 65*(6), 581–597.

Alinaghian, L., & Razmdoost, K. (2018). How do network resources affect firms' network-oriented dynamic capabilities? *Industrial Marketing Management, 71*, 79–94.

Amit, R., & Schoemaker, P. J. H. (1993). Strategic assets and organizational rent. *Strategic Management Journal, 14*(1), 33–46.

Anand, J., McDermott, G., Mudambi, R., & Narula, R. (2021). Innovation in and from emerging economies: New insights and lessons for international business research. *Journal of International Business Studies, 52*(4), 545–559.

Armstrong, J. S., & Overton, T. S. (1977). Estimating nonresponse bias in mail surveys. *Journal of Marketing Research, 14*(3), 396–402.

Arya, B., & Lin, Z. (2007). Understanding collaboration outcomes from an extended resource-based view perspective: The roles of organizational characteristics, partner attributes, and network structures. *Journal of Management, 33*(5), 697–723.

Audretsch, D. B., & Belitski, M. (2023). Evaluating internal and external knowledge sources in firm innovation and productivity: An industry perspective. *RD Management, 53*(1), 168–192.

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99–120.

Beugelsdijk, S., & Luo, Y. (2024). The politicized nature of international business. *Journal of International Business Studies, 55*(3), 281–284.

Bhunian, S. N., Menguc, B., & Bell, S. J. (2005). Just entrepreneurial enough: The moderating effect of entrepreneurship on the relationship between market orientation and performance. *Journal of Business Research, 58*(1), 9–17.

Brock, D. M., & Hitt, M. A. (2024). Making sense of dynamic capabilities in international firms: Review, analysis, integration, and extension. *International Business Review*, Article 102260.

Burt, R. S. (2004). Structural holes and good ideas. *American Journal of Sociology, 110*(2), 349–399.

Capaldo, A. (2007). Network structure and innovation: The leveraging of a dual network as a distinctive relational capability. *Strategic Management Journal, 28*(6), 585–608.

Chandler, G. N., & Hanks, S. H. (1994). Market attractiveness, resource-based capabilities, venture strategies, and venture performance. *Journal of Business Venturing, 9*, 331–349.

Chandy, R. K., & Tellis, G. J. (2000). The incumbent's curse? incumbency, size, and radical product innovation. *Journal of Marketing, 64*(3), 1–17.
Chang, S. J., van Witteloostuijn, A., & Eden, L. (2010). From the Editors: Common method variance in international business research. *Journal of International Business Studies, 41*(2), 178–184.
Chen, Y. S., Lin, M. J. J., & Chang, C. H. (2009). The positive effects of relationship learning and absorptive capacity on innovation performance and competitive advantage in industrial markets. *Industrial Marketing Management, 38*(2), 152–158.
Chesbrough, H. (2003). *Open innovation*. Cambridge, MA: Harvard University Press.
Child, J., & Rodrigues, S. B. (2005). The internationalization of Chinese firms: A case for theoretical extension? *Management and Organization Review, 1*(3), 381–410.
Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Marcoulides (Ed.), *Modern Methods for Business Research* (pp. 295–336). Mahwah, NJ: Erlbaum.
Chmielewski, D. A., & Paladino, A. (2007). Driving a resource orientation: Reviewing the role of resource and capability characteristics. *Management Decision, 45*(3), 462–483.
Cohen, W. M., & Levinthal, D. A. (1990). Absorptive capacity: A new perspective of learning and innovation. *Administrative Science Quarterly, 35*(1), 128–152.
Collis, D. J. (1994). How valuable are organizational capabilities? *Strategic Management Journal, 15*(S1), 143–152.
Conner, K. R. (1991). A historical comparison of resource-based theory and five schools of thought within industrial organization economics: Do we have a new theory of the firm? *Journal of Management, 17*(1), 121–154.
Contractor, F. J., Woodley, J. A., & Piepenbrink, A. (2011). How tight an embrace? Choosing the optimal degree of partner interaction in alliances based on risk, technology characteristics, and agreement provisions. *Global Strategy Journal, 1*(1-2), 67–85.
Cui, A. S., Griffith, D. A., & Cavusgil, S. T. (2005). The influence of competitive intensity and market dynamism on knowledge management capabilities of multinational corporation subsidiaries. *Journal of International Marketing, 13*(3), 32–53.
DeCarolis, D. M., & Deeds, D. L. (1999). The impact of stocks and flows of organizational knowledge on firm performance: An empirical investigation of the biotechnology industry. *Strategic Management Journal, 20*(10), 953–968.
Dhanaraj, C., Lyles, M. A., Steensma, H. K., & Tihanyi, L. (2004). Managing tacit and explicit knowledge transfer in IJVs: The role of relational embeddedness and the impact on performance. *Journal of International Business Studies, 35*(5), 428–442.
Dong, L., & Glaister, K. W. (2006). Motives and partner selection criteria in international strategic alliances: Perspectives of Chinese firms. *International Business Review, 15*(6), 577–600.
Dosi, G., Nelson, R., & Winter, S. (2000). Introduction: The nature and dynamics of organizational capabilities. In G. Dosi, R. Nelson, & S. G. Winter (Eds.), *Nature and Dynamics of Organizational Capabilities* (pp. 1–21). New York: Oxford University Press.
Doz, Y., Santos, J., & Williamson, P. (2001). *Global to metanational: How companies win in the knowledge economy*. Boston, MA: Harvard Business School Press.
Drnevich, P., & Kriauciunas, A. (2011). Clarifying the conditions and limits of the contributions of ordinary and dynamic capabilities to relative firm performance. *Strategic Management Journal, 32*(3), 254–279.
Dyer, J. H., & Hatch, N. W. (2006). Relation-specific capabilities and barriers to knowledge transfers: Creating advantage through network relationships. *Strategic Management Journal, 27*(8), 701–719.
Dyer, J. H., & Singh, H. (1998). The relational view: Cooperative strategy and sources of interorganizational competitive advantage. *Academy of Management Review, 23*(4), 660–679.
Dutta, S., Narasimhan, O., & Rajiv, S. (2005). Conceptualizing and measuring capabilities: Methodology and empirical application. *Strategic Management Journal, 26*(3), 277–285.
Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal, 21*(10/11), 1105–1121.
Felin, T., Kauffman, S., & Zenger, T. (2023). Resource origins and search. *Strategic Management Journal, 44*(6), 1514–1533.
Fernandes, K. J., Milewski, S., Chaudhuri, A., & Xiong, Y. (2022). Contextualising the role of external partnerships to innovate the core and enabling processes of an organisation: A resource and knowledge-based view. *Journal of Business Research, 144*, 146–162.
Ferreras-Méndez, J. L., Newell, S., Fernández-Mesa, A., & Alegre, J. (2015). Depth and breadth of external knowledge search and performance: The mediating role of absorptive capacity. *Industrial Marketing Management, 47*, 86–97.
Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 8*(1), 39–50.
Fornell, C., & Cha, J. (1994). Partial least squares. In R. P. Bagozzi (Ed.), *Advanced methods of marketing* (pp. 55–78). Cambridge: Blackwell.
Gao, X., Zuzul, T., Jones, G., & Khanna, T. (2017). Overcoming institutional voids: A reputation-based view of long-run survival. *Strategic Management Journal, 38*, 2147–2167.
Gargiulo, M., & Benassi, M. (2000). Trapped in your own net? Network cohesion, structural holes, and the adaptation of social capital. *Organization Science, 11*(2), 183–196.
Garriga, H., von Krogh, G., & Spaeth, S. (2013). How constraints and knowledge impact open innovation. *Strategic Management Journal, 34*(9), 1134–1144.
Geisser, S. (1975). The predictive sample reuse method with applications. *Journal of the American Statistical Association, 70*(350), 320–328.
George, G., Zahra, S. A., Wheatley, K. K., & Khan, R. (2001). The effects of alliance portfolio characteristics and absorptive capacity on performance: A study of biotechnology firms. *Journal of High Technology Management Research, 12*(2), 205–226.
González-Moreno, Á., Triguero, Á., & Sáez-Martínez, F. J. (2019). Many or trusted partners for eco-innovation? The influence of breadth and depth of firms' knowledge network in the food sector. *Technological Forecasting and Social Change, 147*, 51–62.
Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology, 78*(6), 1360–1380.
Grant, R. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal, 17*(S2), 109–122.
Grant, R., & Phene, A. (2022). The knowledge based view and global strategy: Past impact and future potential. *Global Strategy Journal, 12*(1), 3–30.
Han, X., Goxe, F., & Freeman, S. (2024). Internationalization through social networks: A systematic review and future research agenda. *International Business Review*, Article 102292.
Hansen, M. T., Mors, M. L., & Løvås, B. (2005). Knowledge sharing in organizations: Multiple networks, multiple phases. *Academy of Management Journal, 48*(5), 776–793.
He, S., Khan, Z., & Shenkar, O. (2018). Subsidiary capability upgrading under emerging market acquirers. *Journal of World Business, 53*(2), 248–262.
Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science, 43*(1), 115–135.
Hernandez, E., Lee, J. K., & Shaver, J. M. (2025). Toward an improved causal test of network effects: Does alliance network position enhance firm innovation? *Strategic Management Journal, 46*(4), 863–897.
Hoopes, D. G., & Madsen, T. L. (2008). A capability–based view of competitive heterogeneity. *Industrial and Corporate Change, 17*(3), 393–426.
Hoskisson, R. E., Eden, L., Lau, C. M., & Wright, M. (2000). Strategy in emerging economies. *Academy of Management Journal, 43*, 249–267.
Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal, 20*(2), 195–204.
Idris, B., & Saridakis, G. (2018). Local formal interpersonal networks and SMEs internationalisation: Empirical evidence from the UK. *International Business Review, 27*(3), 610–624.
Im, S., & Workman, J. P. (2004). Market orientation, creativity, and new product performance in high-technology firms. *Journal of Marketing, 68*(2), 114–132.
Johnson, R. E., Rosen, C. C., & Djurdjevic, E. (2011). Assessing the impact of common method variance on higher-order multidimensional constructs. *Journal of Applied Psychology, 96*(4), 744–761.
Kafouros, M. I., Buckley, P. J., & Clegg, J. (2012). The effects of global knowledge reservoirs on the productivity of multinational enterprises: The role of international depth and breadth. *Research Policy, 41*(5), 848–861.
Katila, R., & Ahuja, G. (2002). Something old, something new: A longitudinal study of search behavior and new product introduction. *Academy of Management Journal, 45*(8), 1183–1194.
Keijl, S., Gilsing, V. A., Knoben, J., & Duysters, G. (2016). The two faces of inventions: The relationship between recombination and impact in pharmaceutical biotechnology. *Research Policy, 45*(5), 1061–1074.
Khan, Z., Lew, Y. K., & Marinova, S. (2019). Exploitative and exploratory innovations in emerging economies: The role of realized absorptive capacity and learning intent. *International Business Review, 28*(3), 499–512.
Khan, Z., Rao-Nicholson, R., & Tarba, S. Y. (2018). Global networks as a mode of balance for exploratory innovations in a late liberalizing economy. *Journal of World Business, 53*(3), 392–402.
Khanna, R., & Guler, I. (2022). Degree assortativity in collaboration networks and invention performance. *Strategic Management Journal, 43*(7), 1402–1430.
Khanna, T., & Palepu, K. (1997). Why focused strategies may be wrong for emerging markets. *Harvard Business Review, 75*(4), 41–51.
Kumar, N., Anderson, J. C., & Stern, L. W. (1993). Conducting organizational research using organizational key informants. *Academy of Management Journal, 36*(6), 1633–1651.
Kumar, P., Liu, X., & Zaheer, A. (2022). How much does the firm's alliance network matter? *Strategic Management Journal, 43*(8), 1433–1468.
Lane, P. J., Koka, B. R., & Pathak, S. (2006). The reification of absorptive capacity: A critical review and rejuvenation of the construct. *Academy of Management Review, 31*(4), 833–863.
Lanzolla, G., & Markides, C. (2021). A business model view of strategy. *Journal of Management Studies, 58*(2), 540–553.
Laursen, K., & Salter, A. (2006). Open for innovation: The role of openness in explaining innovation performance among UK manufacturing firms. *Strategic Management Journal, 27*(2), 131–150.
Lavie, D. (2006). The competitive advantage of interconnected firms: An extension of the resource-based view. *Academy of Management Review, 31*(3), 638–658.
Leiponen, A., & Helfat, C. E. (2010). Innovation objectives, knowledge sources, and the benefits of breadth. *Strategic Management Journal, 31*(2), 224–236.
Lieberman, M. B., & Montgomery, D. B. (1988). First-mover advantages. *Strategic Management Journal, 9*(S1), 41–58.
Li, Y., Fan, D., Kumar, V., & Ananthram, S. (2024). Configuring international growth of emerging market multinational enterprises: A compositional springboarding view in the context of India. *Journal of Management Studies, 61*(6), 2570–2603.
Lindell, M. K., & Whitney, D. J. (2001). Accounting for common method variance in cross-sectional research designs. *Journal of Applied Psychology, 86*(1), 114–121.
Liu, C. L. E. (2012). An investigation of relationship learning in cross-border buyer–supplier relationships: The role of trust. *International Business Review, 21*(3), 311–327.

Luo, Y. (2002). Partnering with foreign businesses: Perspectives from Chinese firms. *Journal of Business Research, 55*(6), 481–493.
Luo, Y. (2021). A general framework of digitization risks in international business. *Journal of International Business Studies, 53*(2), 344–361.
Luo, Y. (2024). Paradigm shift and theoretical implications for the era of global disorder. *Journal of International Business Studies, 55*(2), 127–135.
Luo, Y., Shenkar, O., & Gurnani, H. (2008). Control–cooperation interfaces in global strategic alliances: A situational typology and strategic responses. *Journal of International Business Studies, 39*(3), 428–453.
Luo, Y., & Tung, R. L. (2007). International expansion of emerging market enterprises: A springboard perspective. *Journal of International Business Studies, 38*(4), 481–498.
Luo, Y., & Tung, R. L. (2018). A general theory of springboard MNEs. *Journal of International Business Studies, 49*(2), 129–152.
Luo, Y., & Tung, R. L. (2025). A multipolar geo–strategy for international business. *Journal of International Business Studies*, 1–9.
Ma, X., Yao, X., & Xi, Y. (2009). How do interorganizational and interpersonal networks affect a firm's strategic adaptive capability in a transition economy? *Journal of Business Research, 62*(11), 1087–1095.
Mahoney, J. T., & Pandian, J. R. (1992). The resource-based view within the conversation of strategic management. *Strategic Management Journal, 13*(5), 363–380.
Mair, J., Marti, I., & Ventresca, M. J. (2012). Building inclusive markets in rural Bangladesh: How intermediaries work institutional voids. *Academy of Management Journal, 55*(4), 819–850.
Makadok, R. (2010). The interaction effect of rivalry restraint and competitive advantage on profit: Why the whole is less than the sum of the parts. *Management Science, 56*(2), 356–372.
Makri, M., Hitt, M. A., & Lane, P. J. (2010). Complementary technologies, knowledge relatedness, and invention outcomes in high technology mergers and acquisitions. *Strategic Management Journal, 31*(6), 602–628.
Martin, S. L., Javalgi, R. R. G., & Ciravegna, L. (2020). Marketing capabilities and international new venture performance: The mediation role of marketing communication and the moderation effect of technological turbulence. *Journal of Business Research, 107*, 25–37.
Mathews, J. A. (2006). Dragon multinationals: New players in 21st century globalization. *Asia Pacific Journal of Management, 23*, 5–27.
McDermott, C. M., & O'Connor, G. C. (2002). Managing radical innovation: An overview of emergent strategy issues. *Journal of Product Innovation Management, 19*(6), 424–438.
Miller, D., & Friesen, P. H. (1983). Strategy-making and environment: The third link. *Strategic Management Journal, 4*(3), 221–235.
Monferrer, D., Moliner, M.Á., Irún, B., & Estrada, M. (2021). Network market and entrepreneurial orientations as facilitators of international performance in born globals. The mediating role of ambidextrous dynamic capabilities. *Journal of Business Research, 137*, 430–443.
Murmann, J. P., Guo, B., & Huang, C. (2021). A dynamic perspective on Huawei. *Management and Organization Review, 17*(5), 1087–1100.
Nambisan, S., Zahra, S. A., & Luo, Y. (2019). Global platforms and ecosystems: Implications for international business theories. *Journal of International Business Studies, 50*, 1464–1486.
Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.).). New York: McGraw-Hill.
Okada, A. (2004). Skills development and interfirm learning linkages under globalization: Lessons from the Indian automobile industry. *World Development, 32*(7), 1265–1288.
Palepu, K. G., & Khanna, T. (1998). Institutional voids and policy challenges in emerging markets. *The Brown Journal of World Affairs, 5*, 71–78.
Park, B. I., & Xiao, S. F. (2020). Is exploring dynamic capabilities important for the performance of emerging market firms? The moderating effects of entrepreneurial orientation and environmental dynamism. *International Studies of Management Organization, 50*(1), 57–73.
Park, B. I., & Xiao, S. F. (2021). Doing good by combating bad in the digital world: Institutional pressures, anti-corruption practices, and competitive implications of MNE foreign subsidiaries. *Journal of Business Research, 137*, 194–205.
Peng, M. W. (2012). The global strategy of emerging multinationals from China. *Global Strategy Journal, 2*(2), 97–107.
Peng, M. W., & Luo, Y. (2000). Managerial ties and firm performance in a transition economy: The nature of a micro-macro link. *Academy of Management Journal, 43*(3), 486–501.
Penrose, E. T. (1959). *The theory of the growth of the firm*. New York: Wiley.
Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal, 14*(3), 179–191.
Phillips, L. W. (1981). Assessing measurement error in key informant reports: A methodological note on organization analysis in marketing. *Journal of Marketing Research, 18*(4), 395–415.
Pitelis, C., Wang, C. L., Hughes, M., & Ambrosini, V. (2025). Dynamic capabilities and international entrepreneurship: Towards a better understanding. *International Business Review*, Article 102387.
Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology, 88*(5), 879–903.
Popli, M., Ladkani, R. M., & Gaur, A. S. (2017). Business group affiliation and post-acquisition performance: An extended resource-based view. *Journal of Business Research, 81*, 21–30.
Porcu, L., del Barrio-Garcia, S., Kitchen, P. J., & Tourky, M. (2020). The antecedent role of a collaborative vs a controlling corporate culture on firm-wide integrated marketing communication and brand performance. *Journal of Business Research, 119*, 435–443.
Porter, M. E. (1991). Towards a dynamic theory of strategy. *Strategic Management Journal, 12*(6), 95–117.
Prashantham, S., Zhou, A. J., & Dhanaraj, C. (2020). Depth vs. breadth: Network strategy in emerging markets. *Management and Organization Review, 16*(2), 229–260.
Qaiyum, S., & Wang, C. L. (2018). Understanding internal conditions driving ordinary and dynamic capabilities in Indian high-tech firms. *Journal of Business Research, 90*, 206–214.
Richter, N. F., Sinkovics, R. R., Ringle, C. M., & Schlägel, C. (2016). A critical look at the use of SEM in international business research. *International Marketing Review, 33*(3), 376–404.
Robertson, J., Caruana, A., & Ferreira, C. (2023). Innovation performance: The effect of knowledge–based dynamic capabilities in cross–country innovation ecosystems. *International Business Review, 32*(2), Article 101866.
Saridakis, G. (2024). How evidential pluralism can help clarify the nature of the relationship between unemployment and entrepreneurship. *Journal of Entrepreneurship and Innovation in Emerging Economies, 11*(1), 10–36.
Schmid, S., & Schurig, A. (2003). The development of critical capabilities in foreign subsidiaries: Disentangling the role of the subsidiary's business network. *International Business Review, 12*(6), 755–782.
Schulze, A., & Brusoni, S. (2022). How dynamic capabilities change ordinary capabilities: Reconnecting attention control and problem-solving. *Strategic Management Journal, 43*(12), 2447–2477.
Shane, S. (2000). Prior knowledge and the discovery of entrepreneurial opportunities. *Organization Science, 11*(4), 448–469.
Sheng, M. L., & Chien, I. (2016). Rethinking organizational learning orientation on radical and incremental innovation in high-tech firms. *Journal of Business Research, 69*, 2302–2308.
Shenkar, O., Tallman, S. B., Wang, H., & Wu, J. (2022). National culture and international business: A path forward. *Journal of International Business Studies, 53*(3), 516–533.
Simonin, B. L. (1999). Ambiguity and the process of knowledge transfer in strategic alliances. *Strategic Management Journal, 26*(7), 595–623.
Sinkovics, R. R., Sinkovics, N., Lew, Y. K., Jedin, M. H., & Zagelmeyer, S. (2015). Antecedents of marketing integration in cross-border mergers and acquisitions: Evidence from Malaysia and Indonesia. *International Marketing Review, 32*(1), 2–28.
Stone, M. (1974). Cross-validatory choice and assessment of statistical predictions. *Journal of the Royal Statistical Society Series B (Methodological), 36*(2), 111–147.
Subramaniam, M., & Youndt, M. A. (2005). The influence of intellectual capital on the types of innovative capabilities. *Academy of Management Journal, 48*(3), 450–463.
Tallon, P. P. (2008). Inside the adaptive enterprise: An information technology capabilities perspective on business process agility. *Information Technology and Management, 9*(1), 21–36.
Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal, 28*(13), 1319–1350.
Teece, D. J. (2012). Dynamic capabilities: Routines versus entrepreneurial action. *Journal of Management Studies, 49*(8), 1395–1401.
Teece, D. J. (2018). Business models and dynamic capabilities. *Longest Range Planning, 51*(1), 40–49.
Teece, D. J. (2025). The multinational enterprise, capabilities, and digitalization: Governance and growth with world disorder. *Journal of International Business Studies, 56*, 7–22.
Teece, D., Peteraf, M., & Leih, S. (2016). Dynamic capabilities and organizational agility: Risk, uncertainty, and strategy in the innovation economy. *California Management Review, 58*(4), 13–35.
Uzzi, B. (1997). Social structure and competition in interfirm networks: The paradox of embeddedness. *Administrative Science Quarterly, 42*, 35–67.
Vujanović, N., Radošević, S., Stojčić, N., Hisarciklilar, M., & Hashi, I. (2022). FDI spillover effects on innovation activities of knowledge using and knowledge creating firms: Evidence from an emerging economy. *Technovation, 118*, Article 102512.
Wang, C. L., & Chung, H. F. (2020). Business networking and innovation of Asian enterprises in Western countries: The moderation of institutional distance. *Industrial Marketing Management, 88*, 152–162.
Wang, S. L., Luo, Y., Lu, X., Sun, J., & Maksimov, V. (2014). Autonomy delegation to foreign subsidiaries: An enabling mechanism for emerging-market multinationals. *Journal of International Business Studies, 45*(2), 111–130.
Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal, 5*(2), 171–180.
Winter, S. G. (2003). Understanding dynamic capabilities. *Strategic Management Journal, 24*(10), 991–995.
Wu, H., Chen, J., & Jiao, H. (2016). Dynamic capabilities as a mediator linking international diversification and innovation performance of firms in an emerging economy. *Journal of Business Research, 69*(8), 2678–2686.
Xiao, S. F., Lew, Y. K., & Park, B. I. (2020). International network searching, learning, and explorative capability: Small and medium-sized enterprises from China. *Management International Review, 60*(4), 597–621.
Xiao, S. F., Lew, Y. K., & Park, B. I. (2021). International new product development performance, entrepreneurial capability, and network in high-tech ventures. *Journal of Business Research, 124*, 38–46.
Xu, R., Wu, J., Gu, J., & Raza-Ullah, T. (2023). How inter-firm cooperation and conflicts in industrial clusters influence new product development performance? The role of firm innovation capability. *Industrial Marketing Management, 111*, 229–241.

Yeoh, P. L., & Roth, K. (1999). An empirical analysis of sustained advantage in the U.S. pharmaceutical industry: Impact of firm resources and capabilities. *Strategic Management Journal, 20*(7), 637–653.

Zahra, S. A., & George, G. (2002). International entrepreneurship: The current status of the field and future research agenda. In M. A. Hitt, R. D. Ireland, S. M. Camp, & D. L. Sexton (Eds.), *Strategic entrepreneurship: Creating a new mindset* (pp. 255–288). Oxford: Blackwell Publishers.

Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and truths about mediation analysis. *Journal of Consumer Research, 37*(2), 197–206.

Zheng, S., Zhang, W., & Du, J. (2011). Knowledge-based dynamic capabilities and innovation in networked environments. *Journal of Knowledge Management, 15*(6), 1035–1051.

Zhou, L., Barnes, B. R., & Lu, Y. (2010). Entrepreneurial proclivity, capability upgrading and performance advantage of newness among international new ventures. *Journal of International Business Studies, 41*(5), 882–905.

Zhou, K. Z., & Li, C. B. (2012). How knowledge affects radical innovation: Knowledge base, market knowledge acquisition, and internal knowledge sharing. *Strategic Management Journal, 33*(9), 1090–1102.

Zhu, W., Su, S., & Shou, Z. (2017). Social ties and firm performance: The mediating effect of adaptive capability and supplier opportunism. *Journal of Business Research, 78*, 226–232.

Zou, S., Fang, E., & Zhao, S. (2003). The effect of export marketing capabilities on export performance: An investigation of Chinese exporters. *Journal of International Marketing, 11*(4), 32–55.