How do the source and context of experiential knowledge affect firms’ degree of internationalization?

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ABSTRACT

Although received research emphasizes direct experiential knowledge as a key driver of firms’ internationalization, the role of indirect experience has been increasingly recognized in recent studies. In this paper, we extend these studies by examining the role of source and context of experiential knowledge in relation to firms’ internationalization into specific host markets, and offer a fine-grained analysis of when and how indirect experience complement or substitute direct experience. We test our hypotheses with data from 1,478 Swedish SMEs. Our results reveal that a firm can address its knowledge gaps and increase its extent of internationalization into a host market by combining direct and indirect experience, especially when they yield different types of knowledge needed for internationalization. We further show that direct and indirect experience derived from comparable contexts could substitute for each other but may also create knowledge redundancies.

1. Introduction

Received theories of international business (IB) consider direct experiential knowledge (or lack thereof) a central factor that can explain how firms reduce uncertainties in foreign markets and make incremental resource commitments abroad (Eriksson, Johanson, Majkgård, & Sharma, 2000; Johanson & Vahlne, 1977). Direct international experience accrues from a firm’s firsthand exposure to and involvement in overseas countries, which enables them to observe the outcomes of their past behavior and apply relevant lessons learned to their subsequent decisions (Fletcher & Harris, 2012). Following IB studies have extended this by recognizing that firms can accumulate knowledge not only through direct experience, but also indirectly via interorganizational network relationships (De Clercq, Sapienza, Yavuz, & Zhou, 2012; Johanson & Vahlne, 2002). Correspondingly, interorganizational ties could help internationalizing firms with opportunity identification/recognition (Kontinen & Ojala, 2011), facilitate market entry (Chetty & Blankenburg-Holm, 2000), increase the understanding of foreign business environments (Giroud & Scott-Kennel, 2009), development of useful resources/knowledge (Anderson, Forsgren & Holm, 2002), and performance of foreign operations (Gammelgaard et al., 2012).

Given the above, a specific stream of research has been aimed to explain when and how direct and indirect international experience can substitute or complement each other (e.g., Bruneel, Yli-Renko and Clarysse, 2010; Ciszewska-Mlinaric, Wójcik, & Obłoj, 2020; Pellegrino & McNaughton, 2015, 2017). By systematically accounting for temporal variations in the adoption of different forms of learning, these studies provided valuable insights into the interplay between alternative learning processes and firm internationalization. However, this literature has largely treated internationalization as a unitary phenomenon without paying attention to the important contextual differences across multiple host countries into which these firms internationalize (for a rare exception, see Tushcke et al., 2014). In fact, this is an acute omission since shedding light on the implications of contextual differences between countries constitute an important pillar, if not the raison d’être, of the IB field (Michailova, 2011; Tsui, 2007). In this paper, we aim to address this oversight and ask the following question: how do the source (i.e., direct vs indirect) and context (i.e., similar vs dissimilar to a given host market) of past international experience individually and jointly affect firms’ degree of internationalization in a given host market? In seeking answer to this question, we will build on the concept of knowledge gaps, which refers to the “recognition that the current knowledge is not sufficient to achieve the expected performance in the current situation [and] that new knowledge is needed” (Petersen, Pedersen & Lyles, 2008:1098).

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Each internationalization move is destined for a specific host market, which might be contextually similar or dissimilar to other markets in which the internationalizing firm and its partners have already been operating in. Relevance and usefulness of direct and indirect experiential knowledge thereby depend on such contextual (dis)similarities. Accordingly, we expect contextual similarities/differences to determine the extent of knowledge gaps perceived by the internationalizing firm, and the manner in which it fills those gaps. We thus claim that paying systematic attention to the context in which experience is generated and used will elucidate if and when internationalizing firms benefit from their own experience together with, or in lieu of, the indirect experience available through ties with their network partners.

We contribute to extant IB literature in several ways. Conceptually, we pay explicit (and much needed) attention to context (Mukherjee et al., 2019), and how contextual similarities and differences could shape the relative effects of direct and indirect experience on firm internationalization. Past literature has not yet reached a consensus on the relationship between these two types of experience. Whereas some studies have reported a negative relationship between direct and indirect experience (e.g., Haas & Hansen, 2008), others have found that these two types of experience influence each other positively (e.g., Bresman, 2010). Thus, it is not yet clear if direct and indirect experience substitute or complement each other. In her comprehensive review of the organizational learning field, Argote (2012:36) underlines that “understanding the conditions under which direct and indirect experience complement or substitute for each other is an important question that would benefit from further research.” We respond to this call by examining similarities/differences between the contexts in which direct/indirect experience have been accumulated and the context to which these forms of experience are applied. Importantly, we also differ from earlier comparable IB studies that have examined degree of internationalization as an aggregate measure. In contrast, our study looks at the degree of internationalization at the host market-level. In other words, we focus on the relative efficacy and usefulness of direct and indirect experience for a given foreign market entry, rather than for the overall degree of internationalization. This way, our paper offers a more granular look at the alternative forms of learning used by internationalizing firms. We empirically contribute to existing IB research by corroborating that indirect experience indeed matters for internationalization. We show that the context of indirect experience (i.e., similarity of the context from which it was derived relative to the context in which it is applied) determines whether it can complement or substitute for the lack of relevant experiential knowledge already existing at the focal firm. To be more specific, we find that firms can internationalize to a greater extent by complementing direct experience from similar (dis-similar) markets with indirect experience obtained from dissimilar (similar) market contexts. Our results further suggest that when both direct and indirect experience are gained from markets that are contextually similar or dissimilar to a given host market, these alternative forms of experience can substitute each other and jointly generate negative marginal effect on internationalization into that host country. We discuss implications of these findings for research and practice in the conclusion section.

2. Theoretical background and hypothesis development

In IB literature, by far the most prevalently used framework to explain firms’ internationalization process was developed by Johanson and Vahlne (1977), widely known as the Uppsala Model. According to the model, firms make their overseas resource commitment decisions and develop their foreign operations to the extent that they possess experiential knowledge about foreign market conditions. To overcome inherent difficulties of doing business abroad, Johanson and Vahlne (1977) lay special emphasis on direct experience by noting that “experiential knowledge is the critical kind of knowledge” (p.28) for firms’ internationalization. More recent studies have gone beyond direct experiential learning and examined how firms can accumulate valuable knowledge by partaking in network partnerships (Johanson & Vahlne, 2009). Interorganizational relationships in a business network could provide substantial advantages, the absence of which might generate a liability of outsidership as emphasized in later iterations of Uppsala Model (Johanson & Vahlne, 2009). In what follows, we will use both the classical and more contemporary versions of the model to develop our arguments and predictions.

Indirect experience (or second-hand experience, as Huber, 1991 would call it) is acquired by carefully observing the behavior of other firms. The key distinction between direct and indirect experience relates to the origin of the experience (i.e., whether it is based on the focal firm’s or its network partners’ own past actions/behavior), rather than whether (or the extent to which) these two types of experiences are used and/or benefitted from by the focal firm. During the last decade, a specific body of IB research has delved into the interplay between direct and indirect experience. Based on insights from experiential, congenital and vicarious learning perspectives, Bruneel et al. (2010) argued that alternative sources of foreign market knowledge have substitutive effects on each other. In particular, they found that as new ventures accumulate direct experiential knowledge, they start to develop their own firm-specific routines regarding internationalization. As a result, the influence of congenital and vicarious learning on international expansion tends to decrease over time. Tuscheke et al. (2014) found that indirect experience obtained from ties that involve executives would substitute for direct experience, whereas experience coming through independent ties (i.e., a common board member without an executive position at either firm) would entail relatively weaker relationships, provide non-redundant information and thereby have a complementary effect. Pellegrino & McNaughton (2015) conducted an in-depth longitudinal study of New Zealand-based international new ventures (INVs) to probe into the evolution of alternative learning mechanisms. They found that INVs rely on direct experiential knowledge accumulation throughout their internationalization process. Further, their study showed that direct experience is complemented by congenital learning in the early phases whereas, once internationalized, firms use more resource-intensive modes of knowledge accumulation such as grafting and acquisitions. Ciszewska-Mlinarić et al. (2020) similarly differentiated sequential phases of internationalization and found that congenital and vicarious learning replaced by experiential learning as INVs moved along their internationalization process. In contrast to this substitution hypothesis, Puthusserry et al. (2020) showed that rapidly internationalizing small and medium enterprises (SMEs) combined vicarious and experiential learning approaches to develop market, technology and international knowledge as well as dynamic capabilities that are required to realize sustainable post-entry growth. Thus, their study suggested that alternative learning approaches complement each other.

In this study, we aim to extend the literature on the relative effects of direct and indirect experience on firm internationalization. For this purpose, we focus on interlocking directorates, i.e. when a focused firm and its partner firms simultaneously have the same individuals in their board of directors (Carpenter & Westphal, 2001), as a specific means for accessing indirect experience. Together with executive migration and strategic alliances, interlocking directorates, represent one of the more ubiquitous forms of interorganizational network relationships (see Novoselova, 2021). There is a rich body of literature that has identified interlocking directorates as an important way for tangible and intangible transfer between organizations. Ciszewska-Mlinarić et al. (2020) argued that indirect experience has been created within the partner organization and then made available to the focal firm by means of the interlocking relationship. For conceptual clarity, it is important to note that this definition of indirect experience considers experience at the firm-level and leaves the personal experiences and knowledge of those individuals that are involved in interlocking ties outside the scope of present investigation. Thus, experience transfer happens between the focal firm and its partners, wherein individuals taking part in an interlocking tie serve more as...
conduits in this transfer process between two firms. Accordingly, it has been theoretically argued and empirically shown that, by establishing board interlocks, focal firms can acquire strategic resources and reduce uncertainty through several ways. First, interlocking directorates enable a focal firm to obtain crucial and relevant information about the activities and strategic behavior of other firms (Haunschild & Beckman, 1998; Shropshire, 2010). This, in turn, offers useful benchmarks and reference points for the focal firm while developing and implementing its own resource allocation strategies. Furthermore, interlocking directorates can help firms better integrate with its environment and gain legitimacy by creating opportunities for focal firms to establish relationships with relevant third-party stakeholders (Martin, Gözübüyük & Becerra, 2015). Paralleling and complementing these resource dependence arguments, studies in organizational learning literature have also paid systematic attention to director interlocks as information conduits between firms and a way to access diverse and unique information held by other companies (Beckman & Haunschild, 2002; Howard et al., 2017). As noted by Connelly et al. (2011), an important function of interlocking directorates is that these ties facilitate imitation and vicarious learning between organizations (also see Tuschke et al., 2014).

Thus, board interlocks make it possible for focal firms to observe the behavior of their partners and reduce uncertainty associated with strategic choices available to them. One type of interlocking directorates involves outgoing ties where the focal firm sends its own executives to the board of another firm and enable it to participate in the decision-making processes of these partner firms. In this arrangement, the focal firm can – through its executives – more closely observe other firms’ strategies in situ (i.e., outside the focal firm’s formal boundaries). This would, in turn, extend a focal firm’s capabilities to identify emerging trends, discover otherwise overlooked possibilities, learn new ways of dealing with existing problems and tap into partners’ complementary information and relevant skills of to solve new problems (Haunschild & Beckman, 1998). Another type is called incoming ties, in which partners’ executives sit on the board of the focal firm and bring their past experience with them. Incoming directors can be valuable participants in the focal firm’s board discussions, owing to their experience with and access to information on successful and failed strategies pursued at other firms (Mizruchi, 1996). In both incoming and outgoing ties, the firm-level experience of network partners remains external to the focal firm and provides an opportunity for vicarious learning. Underlining the function of director interlocks as a means for interorganizational knowledge transfer, Westphal, Seidel, and Stewart (2001: 717) find that interlocking ties facilitate “the imitation of an underlying decision process or script that can be adapted to multiple policy domains.” In a similar vein, Beckman and Haunschild (2002:93) note that “interlock network […] has been shown to affect firms’ decisions because directors bring their experiences with similar decisions in other companies to bear on the current decision.” In short, board interlocks provide the opportunity to tap into the knowledge base of network partners, which in turn constitutes a form of indirect experience from the focal firm’s perspective.

Our discussion above suggests that both direct and indirect experience are conducive to fill the knowledge gaps.1 Generally speaking, there are two kinds of knowledge that needs to be acquired for international expansion. The first one is called market-specific knowledge, which refers to “knowledge about characteristics of the specific national market - its business climate, cultural patterns, structure of the market system” (Johanson & Vahlne, 1977:28). Firms need market specific knowledge to be able to reduce uncertainty, perceive and act upon opportunities in foreign markets and thereby increase the extent of their internationalization (Eriksson et al., 1997). Market-specific knowledge about institutional and business climates of host countries entails a great deal of informal and tacit elements (e.g., cultural norms and codes, the way formal regulations are applied in practice). The second type is called general internationalization knowledge (Johanson & Vahlne, 1977), which includes organizational routines, procedures and capabilities to manage overseas operations and is developed based on common patterns among different foreign markets. Therefore, general internationalization knowledge is less location-bounded than market-specific knowledge. As noted by Eriksson et al. (1997: 345) “accumulated experience in internationalization is neither specific to a country nor to a mode of entry. It is firm-specific and constitutes a particular firm’s ‘way of going international’. Corroborating this, Casillas and Moreno-Menéndez (2014) emphasize that cumulative market-specific knowledge can explain internationalizing firms’ resource commitment decisions within countries where this knowledge is applicable. On the other hand, general internationalization knowledge accrues from increased variation and requires extensive experience in heterogenous countries (see also Eriksson et al., 2000) Thus, the key difference between market-specific knowledge and general internationalization knowledge is that the former has limited applicability in dissimilar contexts, whereas the latter could be utilized across a wider array of market contexts.

Differentiating between the sources of experiential knowledge (direct and indirect) and the contexts where experience is accumulated vs utilized (similar and dissimilar), we can think of four alternative scenarios for substitution and complementarity effects (see Fig. 1). In what follows, we will discuss each of these to delineate the mechanisms through which direct and indirect experiential knowledge could substitute or complement each other.

Past research has shown that the geographical spread of firms’ international operations follows a gradual and incremental process, wherein initial foreign market entries are targeted towards host countries that have proximity to firms’ home country (Forsgren 2002; Håkikhani et al., 2014). Differences between countries in terms of cultural norms, business practices, language, education level and industrial development create psychic distance, which is defined as the “the sum of factors preventing the flow of information from and to the market” (Johanson & Vahlne, 1977:24). Firm’s institutional and business knowledge accumulated at the home country could be useful when it expands into nearby host markets with low psychic distance. According to Johanson and Vahlne (1990:12) “when the firm has considerable

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1 We would like to note that we do not see experience, be it direct or indirect, as the only way for an internationalizing firm to learn and fill its knowledge gaps. Nor do we claim that experience accumulation would automatically lead to organizational learning at all times. Earlier research on organizational learning and unlearning (for a review, see Sharma and Lenka, 2020) has shown that firms may involuntarily forget their existing knowledge stock or can fail to develop usable routines as a result of their exposure to new knowledge. Similarly, the existing knowledge stock or organizational memory could either decay over time or lose its usefulness when environmental dynamism is high. Nevertheless, we share the same working assumption with the majority of existing IB research and presume that, cetetis paribus, firms are likely to acquire new knowledge and learn more as their degree of international experience increases. In other words, albeit imperfect, the correlation between experience and learning is assumed to be positive and significant.
experiences from markets with similar conditions, it may be possible to generalize this experience to the specific market.” However, when the internationalizing firm is unfamiliar with a target host market, its internal knowledge sources would be irrelevant or have limited applicability in the new market (Hutzschenreuter & Matt, 2017). This creates knowledge gaps for the firm and would hamper the extent of growth and/or the success of operations in that market (Petersen et al., 2008). The internationalizing firm can fill these knowledge gaps by drawing on the experience of those network partners that already have operations in markets that are similar to the targeted host market (Mukherjee et al., 2019). Casillas et al. (2009:105) emphasizes that “vicarious learning is a kind of hybrid learning that involves both tacit and explicit dimensions.” This suggests that indirect experience of network partners, whom the focal firm has the opportunity to observe and mimic, can provide insights about customer needs, prevalent trends, implicit rules and norms about the host market. In other words, the partners’ context-specific experience can fill in for the internationalizing firm’s lack of market-specific knowledge and help the firm reduce uncertainties, prepare for the distinct conditions in the market and, thereby, justify additional resource commitments therein. We thus expect a context specific substitution effect (i.e., upper-right quadrant of Fig. 1), which suggests that internationalizing firms tend to depend less on the context-specific knowledge of their exchange partners if they develop their own international experiential knowledge from host countries that are similar to the host market. This is in line with the findings of Bruneel et al. (2010), who show that when an internationalizing firm “gains more firsthand international experience through implementing foreign entry actions and operating in foreign markets for an increasing length of time, it will increasingly rely on experiential learning, and the importance of inter-organizational learning for international expansion will diminish.” (p.170).

Based on the above, we hypothesize that:

**Hypothesis 1.** *The higher the focal firm’s direct experience from markets that are contextually similar to the host market, the weaker would be the effect of indirect experience from markets that are contextually similar to the host market on the focal firm’s degree of internationalization in the host market.*

Whereas experience with and knowledge about particular trends and demand conditions about specific (clusters of) markets is an essential driver of internationalization behavior, firms also develop strategic routines based on their learning from their operations which are not necessarily located in contextually similar host countries (Eriksson et al., 1997, 2000). Such routines include, among other things, “abilities to search for information, to identify and evaluate opportunities, screen country markets, evaluate strategic partners, and manage customers’ operations and foreign exchange” (Fletcher & Harris, 2012: 632). Furthermore, general internationalization knowledge is required to coordinate and manage relationships with different subsidiaries, suppliers and customers in various country contexts. Internationalization knowledge and capabilities driven from operations in heterogenous contexts could specify structured ways to approach market entry, which is helpful to reduce uncertainty and make strategic resource commitments in a given host market (Lee, Jiménez & Devinney, 2020). These characteristics of general internationalization knowledge and capabilities render them non-location-bound, provide the basis for a firm’s overall approach to internationalization and guide its strategic market entry decisions (Eriksson et al., 2000). We claim that general internationalization knowledge of the focal firm and network partners can replace one another, which suggests a context free substitution effect between direct and indirect experience (i.e., lower-left quadrant of Fig. 1). When internationalizing firms do not have the managerial resources and competencies to manage internationalization process on their own, they rely on external internationalization capabilities of their network partners. By interacting with network partners, firms can observe and imitate the internationalization strategies of more established multinationals and benefits from their more varied experience in contextually
different countries (Bruneel et al., 2010). Fletcher, Harris and Riché (2021:3) bring this fore by noting that “[internationalization] knowledge needs to be integrated within the firm – coordinating, absorbing, and embedding it within both existing and new procedures.” However, internationalization knowledge entails firm-specific routines and standardized practices, which requires a focal firm to have strong knowledge integration and combinative capabilities to benefit from its partners’ international experience from varied country contexts (see Zahra, Neubaum & Hayton, 2020). This implies that developing a cohesive organizational knowledge base by combining existing routines with new ones is not an easy task, and requires additional managerial efforts. Therefore, a focal firm can benefit from its partners’ internationalization knowledge to a greater extent if it lacks such experience in the first place. In other words, a ‘clean slate’ might be more suitable for an internationalizing firm’s ability to adopt its partners’ general internationalization knowledge and capabilities. On the other hand, if the focal firm accumulates sufficient international experience from varied country contexts and develop its own internationalization knowledge and capabilities, marginal costs of vicarious learning from network partners would outweigh its marginal benefits. Accordingly, we expect that:

**Hypothesis 2.** The higher the focal firm’s direct experience from markets that are contextually dissimilar to the host market, the weaker would be the effect of indirect experience from markets that are contextually dissimilar to the host market on the focal firm’s degree of internationalization in the host market.

The first two hypotheses predict substitution effects to emerge when direct and indirect experience yield the same types of knowledge. With our next set of hypotheses, we shall examine the interplay between these two kinds of experience when they are extracted from opposing contexts. We begin with the situation where general (context free) internationalization knowledge of partners can be synergistically combined with market specific knowledge of the focal firm (i.e., lower-right quadrant of Fig. 1). This represents the case of context free complementarity effect, where the focal firm accumulates international experience primarily from country contexts that are similar to the target host market. Even though this pattern of path-dependent learning is valuable to deepen the internationalizing firm’s context-specific knowledge, it may also create inertia and knowledge gaps that could hamper the extent and success of foreign market entry. This implies that firms need variation and exposure to diverse foreign markets in order to accumulate knowledge and successfully undertake international expansion. Eriksson et al. (2000: 30) emphasize this by noting that “exposure to a richer set of business actors and institutional environments may set in motion a process whereby the internationalizing firm’s current assumptions regarding business and institutional actors are confronted with a new reality.” Therefore, a network partner’s context-free internationalization knowledge could contribute to the focal firm’s foreign entry process by offering novel, and possibly more efficient, routines and procedures to manage the process. In other words, by combining its market-specific knowledge with partners’ richer procedural knowledge about managing and organizing foreign operations, the internationalizing firm can benefit from direct and indirect experience at the same time.

An alternative case would involve a focal firm whose direct international experience comes from its previous entries into contextually dissimilar countries, whereas indirect experience available from its partners pertain to specific characteristics of the firm’s host market (i.e., upper-left quadrant of Fig. 1). This represents context specific complementarity effect, where focal firm uses its general internationalization knowledge to sense and seize market opportunities, manage risks better and take strategic resource commitment decisions accordingly, develop managerial systems and structures to support international operations (Fletcher & Harris, 2012). Although its general internationalization knowledge facilitates market entry, the focal firm would need to fill knowledge gaps due to its lack of tacit understanding of idiosyncratic characteristics of customers, formal and informal norms, location-specific business practices etc. (Domurat & Patzelt, 2016). Indeed, Johanson and Vahlne (1977) lay special emphasis on knowledge specific to a market and see it as a prerequisite for making substantial resource commitments in that market. To address its lack of market specific knowledge, then, the internationalizing firm can benefit from the indirect context specific experience of its network partners. Thus, once again, it is possible to expect a synergistic relationship between direct experience (i.e., internationalization knowledge) and indirect experience (i.e., market-specific knowledge).

In sum, there are reasons to conjecture that an internationalizing firm can benefit from its network partners experience to complement the knowledge gaps encountered in a market entry. Nevertheless, we still need to account for why a specific type of experience (e.g., contextually similar) within a focal firm’s existing knowledge base would foster the use of another type (e.g., contextually dissimilar) transferred from the network partners. Earlier research has shown that aggregate experience has a positive effect on absorptive capacity, which refers to the extent to which firms can identify, assimilate and utilize knowledge available in the external environment (Cohen & Levinthal, 1990; Lane & Lubatkin, 1998). While absorptive capacity has been predominantly used to explain firms’ innovation performance, it has also been identified as a critical contingency for interorganizational learning within networks (Nahapiet & Ghoshal, 1998). Domurat and Patzelt (2016:1153) note that “absorptive capacity plays a crucial role in exploiting information provided by social ties and promoting the application of that information to commercial ends.” When firms accumulate experience from markets that are similar and dissimilar to the host market, they would develop the capacity to identify their knowledge gaps, have stronger ability to locate sources of knowledge to fill those gaps and become more efficient at assimilating and utilizing the new knowledge coming from these sources. Eriksson & Chetty (2003) show that the depth and diversity of an internationalizing firm’s international experience are positively associated with its absorptive capacity, which in turn improves the firm’s ability to perceive its knowledge gaps in a given market entry. This means that firms’ past entries to both contextually similar and contextually dissimilar countries are helpful to develop an increased awareness of their knowledge needs, and effectively leverage their network ties to address knowledge gaps. In other words, existing experience is a useful basis for learning from partners, reducing uncertainties associated with market entry and makes substantial resource commitments therein. This leads to the following hypotheses:

**Hypothesis 3.** The higher the focal firm’s direct experience from markets that are contextually similar to the host market, the stronger would be the effect of indirect experience from markets that are contextually dissimilar to the host market on the focal firm’s degree of internationalization in the host market.

**Hypothesis 4.** The higher the focal firm’s direct experience from markets that are contextually dissimilar to the host market, the stronger would be the effect of indirect experience from markets that are contextually similar to the host market on the focal firm’s degree of internationalization in the host market.

We graphically illustrate our hypotheses in Fig. 2.

3. Methodology

3.1. Empirical context

External knowledge and learning benefits of network ties are especially paramount for the international expansion of SMEs, which often lack direct experiential knowledge required to thrive in overseas markets (Bruneel et al., 2010; Casillas, Moreno, Acedo, Gallego & Ramos, 2009; Coviello, 2006). It is reasonable to expect that managers in large MNCs may also benefit from indirect experience and deal with complexity, inertia, myopia, and path dependence (Aldrich & Martinez,
Therefore, we believe that the essence of our theoretical arguments might as well apply to larger and more established companies. However, SMEs offer a clinical empirical context within which we could test our hypotheses because of several reasons. First, unlike large MNCs, SMEs have the potential to go through a more active process of international growth. As such, SMEs' low level of saturation in terms of international expansion makes them a relevant empirical ground for building a theory on the antecedents of internationalization. Second, different from established MNCs, SMEs do not have as firmly grounded organizational routines that can guide their growth strategies. This suggests that individual members of the board of directors could play more active role and exert more influence on SMEs' internationalization decisions. Lastly, due to their limited size, experience and resources, SMEs depend more heavily on external knowledge and indirect experience available in their networks. This, in turn, makes the role of indirect experience important for SMEs' internationalization.

Our focus on Swedish firms was motivated by the fact that Sweden is a hotbed of innovative, entrepreneurial SMEs (World Intellectual Property Organization, 2021). These SMEs constitute an important portion of Swedish industry (SMEs with 10–249 employees account for about 22 % of the employees of the total firm population), and have additional impetus to be active internationally because of limited growth opportunities in a small domestic market. As a result, one can find a strong tradition among Swedish SMEs to adopt internationalization as the dominant growth strategy, which is supported by the fact that Sweden recently was ranked as number 11 in terms of economic globalization (Gygli et al., 2019). Hence, a portion of Swedish SMEs are likely to pursue international opportunities, which makes it possible to observe a variation in their degree and kind of direct and indirect international experience, and a possibility to detect the potential joint effects of direct and indirect experience in a clear way.

3.2. Sample

We adopt the definition of Organization for Economic Co-operation and Development (OECD) for SMEs, which are defined as those companies whose turnover should not exceed EUR 50 million and number of employees should be between 10 and 249 individuals. We used various sources to construct our database. As discussed, we examine a specific form of network tie – i.e., interlocking directorates where two firms simultaneously have the same individuals in their board of directors (Carpenter & Westphal, 2001), which reflects an important way for tangible and intangible resource transfer between organizations. Data on board interlocks among Swedish SMEs was obtained from the Retriever database (https://www.retriever-info.com), which contains corporate information of all registered limited liability firms in Sweden. Data on overseas operations of publicly listed Swedish companies was taken from the Orbis database of the data provider Bureau van Dijk (https://www.bvdinfo.com). By combining these two datasets, we created a unique database that simultaneously describes the board interlock structures of publicly listed Swedish companies and their overseas operations.

According to the Orbis database, in the year of 2019, all publicly listed Swedish firms amounted to 98,431, of which 5,016 has at least one foreign subsidiary. This means that 5.10 % of all Swedish publicly listed firms had engaged in internationalization. We further identified 43,276 publicly listed Swedish SMEs, of which 2,687 (6.21 %) have international experience through at least one foreign subsidiary. Therefore, we conclude that SMEs not only well represent the overall population in terms of internationalization but also were slightly more active internationally compared to the entire firm population. Out of this population we could retrieve complete data for 1,478 Swedish SMEs with foreign subsidiaries, which is 58.91 % of the population (2,687). Thus, the sample for this study consists of 1,478 Swedish SMEs with at least one foreign subsidiary.

In 2019, the average assets of selected SMEs amounted to 28.3 million EUR, sales amounted to 14.0 million EUR and the average number of employees was 128.7. The average number of board members was 4.39 directors. Collectively, these 1,478 SMEs own 6,394 subsidiaries in 102 countries of the World. Most frequent countries of the subsidiaries are Norway, US, Finland, Denmark, Germany, UK, China, Poland, the Netherlands and France (in descending order). The total sales of subsidiaries amounted to 242,845 million EUR.

It is important to note that our database only included domestic interlocking ties, which permitted us to capture the nature of relational capital of focal companies only at their home country. While past IB
studies predominantly focus on how SMEs’ involvement in foreign business networks help these firms’ internationalization, other scholars have emphasized that home-based relational capital is an important means with which firms can get access to knowledge resources, which would in turn shape the extent of their international involvement (Laursen, Masiorelli & Precipec, 2012; Manolova et al., 2010). This is especially the case for relatively young and small firms, which lack exposure to foreign business environments and need social and relational capital available at their home turf as a springboard for internationalization (Boehe, 2013). Hence, we expect that domestic networks with internationally active firms can provide access to indirect international experience, which makes them highly relevant for those SMEs that aspire to be more active in international markets. In the words of Laursen et al. (2012:784) “potential local social ties play an important role in facilitating firms’ globalization efforts.” In addition to their contextual relevance, domestic network ties are also theoretically interesting. In particular, given that these ties entail geographically constrained social and human capital, they can both facilitate and constrain the scope and level of SMEs’ internationalization. Furthermore, by definition, domestic network ties are formed as a result of physical proximity. Therefore, these ties are not necessarily established with those firms that are highly active and/or successful in foreign markets. Hence, it is not a foregone conclusion that domestic network ties invariably lead to positive outcomes for the focal firm. Despite these reasons for focusing on domestic interlocking directorates, we nevertheless recognize that cross-border interlocking ties are also important when it comes to focal firms’ access to critical experiential knowledge on overseas markets. Unfortunately, data availability limited the ability of the present investigation to include cross-border interlocking ties in the empirical analysis. We acknowledge this as a limitation, and discuss its possible implications for future research in the conclusion section.

3.3. Measurement of variables

3.3.1. Dependent variable

We examined the substitution and complementarity effects on SMEs’ extent of internationalization in a specific host market, focusing on the most recent market entries for each Swedish SME. For reasons of data homogeneity, we selected market entries that took place no earlier than 2013. Degree of internationalization (DOI) of the SME into the host market was operationalized by using three items: (1) sales of the SME in the host market as a percentage of its total sales; (2) the number of employees in the host market as a percentage of its total employment; and (3) the total assets of the SME’s subsidiaries in the host market as a percentage of its total assets. Together, the three indicators reflect the underlying construct, firm-level degree of internationalization in the host market. Consistent with Sullivan (1994), our measure for DOI captures a richer picture of the firm’s overseas activities compared to using domestic-to-foreign ratio of sales, employees or assets separately (Palepu, 1985; Jensen & Zajac, 2004; Hoskisson et al., 1993; Wiersema & Bantel 1992; Geringer, Beamish & daCosta, 1989; Grant, 1987). The three indicators were measured for the last available year, t = 2019. We constructed a single measure for degree of internationalization in the specific host market through a principal component analysis. All three indices loaded on the same single main component that accounted for 71.6 % of the total variance. The standardized scores on the FSTS, FATA and FETE were then weighted by the factor score coefficients (0.83, 0.86, and 0.69 respectively) and summed. Cronbach’s alpha for this variable was 0.79. We used these three indicators for each firm to compute a standardized (i.e., mean = 0, SD = 1) index measure of firm’s DOI in the host market.

3.3.2. Independent variables

Direct experience of the focal SME was measured using (a) the number of years since its first international operation was established and (b) the number of countries it is operating in by the year (i.e., t-1=2018). Since number of years and number of countries have different scales, both indices were standardized (mean = 0, SD = 1) prior to the combining them to create a unified firm-level indicator. Using principal component analysis, we found that these two indices loaded on the same single main component and explained 85.8 % of the total variance. The factor score coefficients for the number of years since the first international operation and the number of countries were 0.78 and 0.74, respectively. We used the factor score coefficients to calculate a weighted average value for direct experience. Cronbach’s alpha for this multi-item composite variable was 0.78.

3.3.3. Moderating variables

To operationalize indirect experience, we first identified those companies with which the focal SME has established one or more board interlocking ties. For each of these interlocked companies, we then calculated indirect international experience by (1) the number of years since its first international operation was established and (2) the number of countries it is operating in by the year (i.e., t-1=2018). Since the numbers of years and countries have different scales, both indices were standardized (mean = 0, standard deviation = 1) prior to the collapsing them to create a unified firm-level indicator. Using principal component analysis, we observed that these two indices loaded on the same single main component and explained 83.2 % of the total variance. The factor score coefficients for the number of years since the first international operation and the number of countries was 0.74 and 0.81, respectively. We used the factor score coefficients to calculate weighted average value for indirect experience. Cronbach’s alpha for this multi-item composite variable was 0.81.

As noted elsewhere, applicability of direct and indirect experience from one context to another could also be influenced by possible inter-country variation in terms of cultural, political, institutional and social parameters. To test our hypotheses, we therefore differentiated between experiences from markets similar to and from markets dissimilar to the target market. We decomposed the independent variable (direct experience) and the moderator (indirect experience) into experience gained from markets similar to the target markets and experience gained from markets distant from the target markets. To perform that, we used the CAGE framework (Ghemawat, 2001), which represents multidimensional index consisting of Cultural (i.e., differences in terms of values, norms and attitudes), Administrative (i.e., differences in colonial ties, legal systems and language), Geographic (i.e., physical distance between geographic center of countries) and Economic (i.e., differences in terms of macroeconomic indicators and level of economic development) dimensions. The CAGE model has been widely used to study differences between countries (e.g., Berry et al., 2010; Ghemawat, 2007; Shaheer and Li, 2020). Based on the CAGE index, we rank-ordered countries and calculated each firm’s level of experience gained from countries that were ranked at the top third and bottom third of this list. Countries that had a moderate distance, in-between the top third and the bottom third of the list, were excluded from further analysis. Based on this categorization, we were able to differentiate between four types of experience: direct experience as well as indirect experience gained from countries that were similar to the host country, and direct experience as well as indirect experience gained from countries that are dissimilar to the host country.

3.3.4. Control variables

To improve our model estimation, we employed several control variables that might affect firms’ international growth. First of all, the degree of the firm’s internationalization into a specific host country could be affected by location specific factors (Dunning, 1998). For this reason, we used a set of control variables to capture such country-level effects. In particular, we examined market size (captured by the natural log of the host economy’s 2019 GDP in US dollars), market growth (measured by the average annual GDP growth rate in constant prices for the years 2009–2019) and host economy development (captured by the
natural log of 2019 GDP per capita in US dollars). The operationalization of these variables follows from earlier research (Enright, 2009) and the data were drawn from World Bank. In addition to these country-level controls, we also controlled for the effects of relevant firm-level antecedents of internationalization. Firm size was measured as the logarithm of the total number of employees worldwide (Verwaal & Donkers, 2002; Erramilli & Rao, 1993). Firm age was measured as the number of years that had elapsed since the SME was established. R&D intensity was measured by an SME’s R&D expenditure divided by sales (e.g., applied by Belderbos, 2003; Cohen & Levinthal, 1990). Each SME’s R&D intensity was then adjusted for industry by subtracting the industry median R&D intensity from the focal SME’s R&D intensity. We used industry-adjusted R&D intensity in order to remove any industry-specific effects from the SMEs’ R&D investments. Collectively, size, age and R&D intensity capture the extent of SMEs’ general resources that could be deployed for entry and growth in the host market. Further, as noted earlier, one of the key aspects of our empirical investigation was that we examined SMEs’ degree of internationalization in a specific host market. A firm’s extent of internationalization at any point in time in a host market also depends on the duration of its operations considering that firms continue making resource commitments after the initial entry (Puthusserry et al., 2020). Therefore, given that we measure our dependent variable at a single point of time, we also controlled for age of the focal SME’s subsidiary, which was captured by the time (in years) since the SME first entered the host market.

To account for heterogeneity across multiple board interlocks a focal firm established at a given point in time, we also controlled for age of ties (i.e., the number of years since the establishment of the interlocking tie between the focal and network firms) and number of shared directors (i.e., the number of common board members that form the tie between the focal and network firms). Furthermore, we also took alternative forms of experiential knowledge and learning (e.g., congenital and grafting) into consideration by including aggregate international experience of TMT members of the focal SME. For this, we looked at each individual TMT member and traced his/her earlier career record to identify all companies s/he had been involved as a board member or executive in the past (i.e., prior to joining the focal SME). We then measured the international experience of these companies (i.e., age of the international operations and number of countries entered) by the year the focal TMT member quits his/her position at that company.

4. Analysis and results

To examine how indirect experience from markets that are contextually similar [IE-S] and contextually dissimilar [IE-D] to the focal SME’s host country (of the subsidiary) moderate the effects of direct experience from markets that are contextually similar [DE-S] and contextually dissimilar [DE-D] to the focal SME’s host country on the SME’s degree of internationalization [DOI] in the host country, we used the following OLS regression model with two-way interaction effects:

\[
DOI = \delta + DE - S + DE - D + IE - S + IE - D + [DE - S]x[IE - S] + [DE - D]x[IE - D] + [DE - S]x[IE - D] + [DE - D]x[IE - S] + \delta + Controls + Error
\]

In this equation, we incorporated industry fixed effects (δ) to account for heterogeneity across industries, using the two-digit SIC code industry classifications (obtained from Bureau van Dijk database).

Evidently, the actual effects of indirect experience on degree of internationalization may not materialize immediately. Therefore, we thoroughly investigated the reverse causality and endogeneity issues. To that end, we closely followed the recent editorial guidelines specified by Meyer et al. (2017), who identify lagged explanatory variables as one of the best-known technical solutions to the endogeneity problem. Accordingly, we measured the dependent variable (degree of internationalization) at the last available year (t = 2019) and all the remaining variables measured with a one-year lag (t−1 = 2018).

Table 1

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Degree of Internationalization</td>
<td>0.244</td>
<td>0.176</td>
</tr>
<tr>
<td>2 DE-Similar</td>
<td>0.267</td>
<td>0.072</td>
</tr>
<tr>
<td>3 IE-Similar</td>
<td>0.084</td>
<td>0.063</td>
</tr>
<tr>
<td>4 IE-Dissimilar</td>
<td>0.129</td>
<td>0.066</td>
</tr>
<tr>
<td>5 R&amp;D intensity</td>
<td>2.179</td>
<td>2.359</td>
</tr>
<tr>
<td>6 Market Size</td>
<td>25.303</td>
<td>2.948</td>
</tr>
<tr>
<td>7 Market Growth</td>
<td>2.877</td>
<td>2.359</td>
</tr>
<tr>
<td>8 Market Development</td>
<td>8.751</td>
<td>1.382</td>
</tr>
<tr>
<td>9 Age of ties</td>
<td>3.271</td>
<td>5.141</td>
</tr>
<tr>
<td>10 Number of Directors</td>
<td>3.26</td>
<td>1.73</td>
</tr>
<tr>
<td>11 TMT BR experience</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Note: The number of observations is 1,478.
variables measured with a one-year lag (t-1 = 2018).

Descriptive statistics are presented Table 1. As noted in the previous section, the multi-item measures in our study (degree of internationalization, direct and indirect experience) were centered all variables prior to analysis. Table 1 further reveals that pairwise correlations are moderate. Prior to the analysis, we checked variance inflation factors (VIF) to control for potential multicollinearity concerns. The maximum VIF (1.476) was lower than the commonly accepted threshold values for multicollinearity (Hair et al., 1998), which suggests that multicollinearity was not an issue in our data (Netter, Wasserman, & Kutner, 1990).

Table 2 provides the results of our main analyses, where Model 1 is the baseline wherein we only entered control variables along with the main effect of Direct Experience. Across all models, we found that SMEs’ age and size had significant and positive effects on their degree of internationalization. This was consistent with results reported in earlier internationalization studies (e.g., Bilkey & Tesar, 1977; Diamantopoulos & Inglis, 1998) and the idea that younger and smaller firms are less likely to invest abroad due to their lower odds of survival in the competitive environment of foreign markets.

When it comes to main effects, our baseline model (Model 1) confirmed that direct experience, from both contextually similar and dissimilar markets, had significant and positive effects (β = 0.247, p < 0.001 and β = 0.192, p < 0.001, respectively) on the focal firm’s degree of internationalization into the host market. Similarly, we also observed positive and significant effects of partners’ indirect experience from similar (β = 0.148, p < 0.001) and dissimilar (β = 0.138, p < 0.001) markets on the focal firm’s degree of internationalization. Next, we developed Models 2–6 to test the two-way interaction effects as predicted in Hypotheses 1–4.2

We tested Hypothesis 1 by assessing the interaction of the terms for direct experience and indirect experience from markets that are contextually similar to the focal firm’s host country (Table 2, Model 2). The results show that the interaction coefficient was negative and significant (Model 2, β = -0.161, p < 0.001), which was in line with the prediction in Hypothesis 1. This negative interaction coefficient means that the total effect of DE-S and IE-S (which is the sum of individual effects of DE-S + IE-S = 0.213 + 0.144 = 0.357 plus the interaction effect of DE-S × IE-S = -0.161) remained positive, but decreased. This finding was consistent with the one we report in our full model (Table 2, Model 6) where we reported significance for this negative interaction term (β = -0.152, p < 0.001). This provided full support for our Hypothesis 1. In a similar way, our results were in line with Hypothesis 2 since the coefficient of interaction term ((DE-D) × (IE-D)) was negative and significant in both Model 3 (β = -0.134, p < 0.001) and Model 6 (β = -0.126, p < 0.010). Therefore, Hypothesis 2 received full support.

We tested our third hypothesis by assessing the interaction of the terms for direct experience from markets that were contextually similar and indirect experience from markets that were contextually dissimilar to the firm’s host country (Table 2, Model 4). The results showed that the interaction coefficient was positive and significant (Model 4, β = 0.116, p < 0.050), which is in line with the prediction of Hypothesis 3. This positive interaction coefficient means that the total effect of DE-S and IE-D (which is the sum of individual effects of DE-S + IE-S = 0.211 + 0.155 = 0.366 plus the interaction effect of DE-S × IE-D = 0.116) remained positive and increased. This finding was consistent with the result in the full model (Table 2, Model 6), where this interaction term was also significant (Table 2, Model 6, β = 0.124, p > 0.010). Hence, our results lent support for Hypothesis 3. Finally, we tested Hypothesis 4 by assessing the interaction of the terms for direct experience from markets that were contextually dissimilar and indirect experience from markets that were contextually similar to the focal firm’s host country (Table 2, Model 5). The results showed that the interaction coefficient was positive and significant (β = 0.217, p < 0.001), which is in line with the prediction in Hypothesis 4. This finding was consistent with the one reported in the full model (Table 2, Model 6) where this interaction term is significant (β = 0.191p < 0.001). This provided full support for Hypothesis 4. Table 3 presents a summary of the supported hypotheses and the significance level at which they received support.

4.1. Robustness tests

To validate our findings, we ran several robustness tests.3 First, we sought to address the potential for reverse causality given that the degree of internationalization may also influence the interlocking and networking behavior of SMEs. To control for this, we ran additional estimations where we included the dependent variable measured at the last available year (t = 2019) and all the remaining variables measured with a two-year lag (t-2 = 2017). The results show similarity with our main results obtained by using a one-year lag. Second, considering that we did not use a randomly selected set of firms in our empirical analyses, we used Heckman two-stage model to check for possible bias that may emerge as a result of endogeneity and self-selection. For that purpose, we collected a new dataset that comprised of 300 Swedish SMEs that were fully domestic and combined this with our main dataset. Using this augmented database, in the first stage of the Heckman approach, we used a probit model to predict the propensity of firms to go international. In more detail, the dependent variable in the first-stage of the probit model was a binary variable that was coded 1 for Swedish international firms and 0 for Swedish domestic firms. Next, we calculated the inverse Mills ratio, which we then included as a control variable in our subsequent second-stage regression models to check for sample selection bias. The results of the two-stage regressions, showed that Inverse Mills Ratio was insignificant across all models. In these models, the sign and the significance levels of the coefficient estimates for the main and interaction effects were the same as those reported in our main analysis.4

Next, we checked for potential omitted variables bias. A large percentage of samples were based in Stockholm (24.26 % or 384 SMEs), and this colocation might have led to types of interaction we did not account for in our theory and models. To deal with this, we followed a jackknife procedure by running tests on a sub-sample of the original sample without firms from Stockholm (1,199 SMEs). The results suggest that omitted variables were not likely to be behind the results.

Furthermore, we estimated separate models for first-time internationalizes and already internationalized firms. The existing internationalization literature suggests that the case of later international expansion moves can substantially differ from first-time internationalization, as previous knowledge and experience should make subsequent entries faster than the initial entry (Surdu et al., 2018; Yayla et al., 2018). To address this issue, we estimated the model separately for firms that had made their first internationalization move (i.e., at time [t-1 = 2018] DOI of the firm is zero) and for already internationalized firms. The results showed no significant difference between SMEs in the two groups.

Lastly, we conducted series of non-parametric tests to cross-validate

2 A limitation of our empirical analysis is that, because we used standardized variables in our models, we could not calculate the economic significance of our results. Therefore, statistical significance levels reported in our paper shall be interpreted conservatively.

3 The results of our robustness tests were not reported due to space constraints, but they are available from the authors upon request.

4 The results of the Heckman two-stage analysis were not reported to save space but can be retrieved from the authors upon request.
the reliability of our findings. To accomplish this, we divided all firms in the sample into the following four clusters. The cluster (LL) included all firms with below-average Direct Experience from Similar Markets [DE-S] and also below-average Indirect Experience from Similar Markets [IE-S]. The cluster (HL) included all firms with above-average Direct Experience from Similar Markets [DE-S] and below-average Indirect Experience from Similar Markets [IE-S] levels. The cluster (LH) included all firms with below-average Direct Experience from Similar Markets [DE-S] and above-average Indirect Experience from Similar Markets [IE-S] levels. Finally, the cluster (HH) included all firms with above-average Direct Experience from Similar Markets [DE-S] and

\footnote{We would like to thank one of the anonymous reviewers for this suggestion.}
above-average Indirect Experience from Similar Markets [IE-S] levels. After that, we compared each cluster to see how each of these four groups of firms behave in terms of DOI. We then compared the additive effect of [IE-S] for firms with low and high [DE-S]. This comparison would give us additional insights regarding the complementarity and substitution hypotheses. To do this, we compared the difference in DOI for firms in the LH and LL clusters with the difference in DOI for firms in the HH and HL clusters. The two-sample t-test (p < 0.001) showed that the additional effect of high level [IE-S] for firms with a low level of [DE-S] (that is, for firms in their clusters LL and LH) was higher than for firms with a high level of [DE-S] (that is, for firms from clusters HL and HH). This result is consistent with our substitution effect and previous regression analysis findings (Model 2 in Table 2). We repeated this analysis by using the same approach and creating analogous clusters with different constellations of Direct versus Indirect Experience from Similar versus Dissimilar Markets. The results of these additional tests were squarely in line with what we reported in Table 2 (Models 3, 4 and 5), and collectively supported our main findings regarding substitution and complementarity between direct and indirect experience gained from different market contexts.

5. Discussion and concluding remarks

In this paper, we aimed to complement past research on internationalization, experience, and network ties by looking at the neglected role of context in the interplay between direct and indirect experience. Our first contribution relates to the mixed results in previous research about the relationship between direct and indirect experience (e.g., Bresman, 2010; Haas and Hansen, 2005). We extended this research and have investigated the effects of direct and indirect experience on firms’ internationalization degree at the specific host-market level (rather than as an aggregate measure). In doing so, we examined the potential role of contextual differences between the firms’ and their network partners’ experience (similar and dissimilar) from prior internationalization across different foreign markets, which is arguably the most important consideration in extant IB research at large. While our focus recognizes that firms can also learn from their network partners as an important means to gain indirect experiential knowledge for the purpose of their own international expansion, we align to research that has aimed to explain how direct and indirect international experience can substitute or complement each other (c.f., Argote, 2012). Yet, research that considers joint effects of direct and indirect experience is scant. By looking at the direct and indirect sources of experience (of the focal firms and their network partners) and (dis)similarity of the contexts of where past experience is gained, we tested how these factors relate to firms’ degree of internationalization in a given host country. We thereby advance the prevailing view in received theories of international business, which considers direct experiential knowledge the primary way for firms to reduce uncertainties in foreign markets and make incremental resource commitments abroad (Eriksson, Johanson, Majkgård, & Sharma, 2000; Johanson & Vahlne, 1977).

Our second conceptual contribution concerns our market-level approach to internationalization. This is important as it helps identifying the particular knowledge gaps that firms need to fulfill while entering into a specific target market (Petersen et al., 2008). In some cases (e.g., a focal firm having in-depth context-specific knowledge but lacking general internationalization knowledge), the focal firm might need to address its global efficiency and coordination considerations. In other cases, the focal firm may have established routines to manage its overseas operations, but lacks detailed understanding required to handle idiosyncrasies of the target market environment. These nuances in terms of knowledge gaps and learning needs might get lost when internationalization is treated as an aggregated concept, which has been the case in majority of past IB research on the interplay between direct and indirect experience. We thus address this with our conceptual and empirical design.

Our empirical results were consistent with earlier findings that both direct and indirect experiences independently matter to the internationalization degree of firms (De Clercq et al., 2012), and independently of if these experiences stem from similar and dissimilar market contexts as the particular host-country. However, as our study focuses on the relation between direct and indirect experience (and experience [dis]similarity) it can be viewed as a “stress test” of indirect experience, asking more in detail when network partners’ international experience moderates the effect of the focal firm’s direct experience on its internationalization degree in the host-country. Two patterns emerged in our results. First, we found that when the focal firm has the same type of experience as its network partners (i.e., both types of experience come from either similar market contexts), the partners’ experience negatively moderates the relation between the focal firm’s direct experience and its DOI. In other words, despite the positive impact of indirect and direct experiences, separately, combining similar experiences of network partners and the focal firm did not further enhance the DOI. This is a strong indication that vicarious learning can be a delicate and risky strategy especially when the firm may overestimate the use of similar contextual knowledge of network partners. Likewise, and in consistency, we see the same negative moderation on the firm’s internationalization degree into the host-country when the experience of network partners as well as the focal firm share the feature of only having experiences of contexts from dissimilar markets. Again, only having direct experience from dissimilar market (i.e., without having market specific knowledge), combined with network partners experience from dissimilar markets did not strengthen the DOI of the focal firm. This effect may have two explanations: network partners operations in dissimilar markets do not easily generate general and transferable internationalization knowledge that compensates for the focal firm’s lack of organizational routines to manage international operations and, secondly, the focal firm cannot easily combine its (absence of) market-specific knowledge in the host-market with the network partners’ general internationalization knowledge.

In contrast, the second pattern of results was consistent with our hypotheses that, when network partners and the focal firm have different types of experience (i.e., one entails market-specific knowledge whereas the other encapsulates general internationalization knowledge), the moderating effect on the firm’s internationalization degree is positive. We thus find complementary effects. This may be somewhat counterintuitive since the focal firm may still benefit from network partners’ experience of dissimilar markets even if it already possesses market specific knowledge in similar contexts as the host-market. The opposite is perhaps less surprising, i.e., that when network partners’ experience of contexts is similar to the host-market it will complement and positively affect the focal firm’s internationalization who only has experience from dissimilar contexts.

Our empirical results draw distinct attention to how indirect experience could have a positive or negative effect on firms’ degree of international growth. Thus, even if a given firm has insufficient direct experience with foreign markets, it can still make resource commitments and establish presence abroad by, in this case, developing interlocking directorates with other firms and obtaining internationalization knowledge from these companies. This ability to complement the direct experience with network experience is relevant for explaining non-incremental and rapid patterns of internationalization by new ventures (Oviatt & McDougall, 1997). Past research has attributed the phenomenon of indirect experience to entrepreneurial orientation of key decision makers (e.g., Anderson, 2000; Schweitzer et al., 2010), founding managers’ personal knowledge about foreign markets (e.g., Zhou, 2007) and opportunity-based drivers of international growth (e.g., Zahra et al., 2005). Our study provided an alternative and complementary explanation and suggests that firms can make resource commitments abroad by relying on the experiential knowledge of other firms with which they establish network relationships, such as interlocking directorates. We conclude that indirect experience matters most for the
firm’s internationalization degree when combined with network partners’ different and complementary sets of experience, rather than combined with similar experiences. Hence, these complementing effects become especially valuable as a means for filling knowledge gaps emerging from lack of sufficient information on market-specific characteristics or general internationalization knowledge that the firm that the firm may gain from network partners. This is partly in line with the original postulations made by Johnson and Vahine (1977) who emphasized market-specific knowledge as the main prerequisite for making resource commitments in foreign markets. However, our findings also supported that network relations can provide for a mechanism for combinatory use of direct and indirect international experience, rather than merely being a result of the firm’s own business activities (Bruneel et al., 2010; Ciszewska-Mlinari et al., 2020). In other words, interlocking ties can be useful for filling not only the internationalizing firms’ context-specific knowledge gaps but also knowledge gaps stemming from lack of general internationalization knowledge. However, there is a limit to this observation as we, again, must recognize that when a firm and its network partners have similar context-experiences, the combinatory effects have a negative marginal effect on focal firm’s ability to internationalize into the host-market.

Importantly, our paper extends these earlier studies by not only bringing the crucial role of context to the forefront (which has been suggested in prior research; see e.g., Mukherjee et al., 2019), but also examining international growth at market entry level. This latter point is valuable given that internationalizing firms perceive different types/degrees of knowledge gaps during different foreign market entries they undertake. Therefore, we claim that firms would switch between different sources of learning depending on the specificities and unique properties of each market entry, and their consequent knowledge needs. Another important corollary of our findings is that firms may build on interchangeable knowledge in connection how to generate experience. Our results, thus, indicate that firms may use their direct and indirect experiences in a rather rationalized way and benefit from other firms’ experience with foreign country contexts that are quite different from their existing market portfolio. On the other hand, if direct and indirect experience is rooted in similar market conditions, firms do not extensively use both types of experience to avoid information overload (Levy, 2005). This way, internationalizing firms could economize their limited managerial resources and deal with risks and uncertainties of overseas markets accordingly. To managers, the distinction and selection between learning partners’ providing complementary or substitutive experiential knowledge becomes a strategically important issue, essential to the type of knowledge that needs to be filled. For instance, if the network partner has substantive experience of general internationalization knowledge derived from dissimilar markets or if it has market specific knowledge generated from similar market contexts as the host-market, will be of importance. An intricate notion is that firms may need to manage knowledge incompatibilities: what happens when the focal firm and its partners have different kinds of general internationalization knowledge, and routines emerging thereof, or when specific market knowledge (e.g., about customers and supplier qualities) suggest conflicting routes of action? This may create serious complications and require trial-and-error processes including realization of failures as a result of using indirect knowledge. It is thus fair to ask how to make the most out of indirect experience available in partners without falling for possible traps. There is a risk that the focal firm adopts partner routines without paying attention to the applicability and/or usefulness of these routines in the focal firm’s internal (and/or external) context. An opposite risk could be inertia and success traps where the focal firm discards partner’s potentially better routines to manage internationalization.

We encourage future studies to address some limitations of our paper. To begin with, we focused on a specific aspect of international expansion (i.e., degree of internationalization). Subsequent research could complement this by examining how different types of interlocking directorates could influence location decision, entry and establishment mode choices and post-entry strategies of firms. Moreover, our theoretical model did not make any normative predications concerning the performance implications of the use or non-use of indirect experience in the process of internationalization. Yet, past research has shown that vicarious learning might also lead to spurious learning and mislead firms (Denrell, 2003). This could be addressed by studying whether utilizing indirect experience could create positive or negative consequences for the performance of overseas operations (Vermeulen & Barkema, 2002). Another limitation of the present study is that it focused only on SMEs, which leaves it an open question whether the interaction between direct and indirect experience could be different in large MNCs. It is quite likely that these corporations have established routines for expanding their operations abroad and managing overseas unit. Therefore, context-free substitution and complementarity effects might be observed in different patterns for established MNCs. In connection, we focused only on Swedish SMEs. Future research using samples with wider geographical scope would entail greater variations of, for example, home country market size, industry structures, managerial practices, etc., and provide for greater generalizability of our findings. Moreover, we used interlocking directorates as an empirical focus to identify network relationships, which may be a particular and distinctive type of relationship. In fact, an interesting focus in future research would be to extend the study and distinguish different types of network relationships at different organizational levels, formal and informal, to elucidate how they transmit the importance of indirect experience, including their effects on the internationalization of the firm. Along the same lines, future studies can look at alternative means and processes for inter-organizational transfer of experiential knowledge. This would give additional evidence concerning the role of indirect experience and its potential interaction with direct experience during firm internationalization. Lastly, the implicit assumption in our paper is that the effect of domestic interlocking ties on firms’ international involvement is linear and positive. However, high levels of domestic social capital may create over-embeddedness and constraints for wider international involvement (c.f., Laursen et al., 2012). Therefore, we invite future studies to consider the possibility of curvilinear (i.e., inverted-U-shape) relationship between relational capital and degree of internationalization, as well as the role of interlocking ties formed between focal and foreign firms.

CRediT authorship contribution statement

H. Emre Yildiz: Writing – review & editing. Sergey Morgulis-Yakushev: Writing – original draft, Methodology, Formal analysis, Data curation. Ulf Holm: Writing – review & editing, Writing – original draft, Methodology, Funding acquisition, Conceptualization. Mikael Eriksson: Writing – review & editing, Writing – original draft, Conceptualization.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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