



COUNTERPOINT

MNE internationalization patterns, the roles of knowledge stocks, and the portfolio of MNE subsidiaries

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Abstract

Learning and knowledge are crucial to the internationalization process of the firm. Johanson and Vahlne (1977, 2009) put gaining experience, i.e., learning and accumulating knowledge at the heart of their internationalization model. We posit that the IB field has perhaps moved too fast from conceptual work to quantitative empirical studies, not devoting sufficient attention to the idea of experiential learning, either conceptually or empirically. We look at the most cited internationalization studies to assess their theoretical and empirical contributions to experiential learning and knowledge stock accumulation and to the important role played by the portfolio of MNE subsidiaries as a knowledge source. We extend theory by carefully laying out how a growing portfolio of subsidiaries leads to accumulation of particular kinds of knowledge stocks, which can help with subsequent expansion moves. We show also how the concept of added distance supports this argumentation, thereby contributing to the theoretical and empirical work on the “further internationalizing” MNE.

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INTRODUCTION

The internationalization process of the firm has been the subject of considerable research in the field of International Business (IB). The consensus is that learning and knowledge play a crucial role in it. The internationalization process model of Johanson and Vahlne (1977) has provided an intellectual basis for the internationalization literature and is today the dominant model of internationalization processes in IB (Welch, Nummela, & Liesch, 2016). The model, usually called the Uppsala model, postulates that firms (1) internationalize incrementally, increasing their resource commitment in foreign markets along an establishment chain of operational modes; and (2) select markets based on the psychic distance from their home market, beginning internationalization in psychically close markets. The Uppsala model is dynamic in that the firm’s past and current activities affect its present

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internationalization state (market knowledge and market commitment), and that these state variables in turn influence subsequent commitment decisions (Johanson & Vahlne, 1977). One of the most important Uppsala Model assumptions is that lack of knowledge about foreign markets and foreign operations “is an important obstacle to the development of international operations” (Johanson & Vahlne, 1977: 23). The knowledge gap, i.e., the gap between the knowledge possessed by the firm and that needed to successfully operate in a new market, results in MNEs facing a liability of foreignness that increases the risk of operations in a foreign country (Hymer, 1976; Petersen, Pedersen, & Lyles, 2008; Zaheer, 1995). Johanson and Vahlne (1977) look to Penrose (1959) in specifying the optimal source of knowledge for internationalization, “Experiential knowledge is the critical kind of knowledge” (Johanson & Vahlne, 1977: 28). This learning-by-doing knowledge “can be acquired mainly through operations abroad” (Johanson & Vahlne, 1977: 23).

The Uppsala model has been revised by the authors themselves (Johanson & Vahlne, 2009). They have extended it to include network relationships, trust-building and knowledge creation. Companies gain knowledge not only *internally and directly*, that is, through their own experience in a host market, but also through external, network-based processes. Furthermore, it is not the liability of foreignness per se that matters, but rather the liability of outsidership, i.e., internationalizing firms are not part of the relevant business networks in new local contexts. The key challenge in international expansion is to overcome the liability of outsidership to become an insider in local networks. A higher degree of outsidership means there is more complexity and uncertainty that must be addressed; it is the equivalent of a greater knowledge gap that the firm needs to overcome.¹ We define the knowledge gap as the “distance” between experience/knowledge possessed and that needed in a new/target local context.

To overcome the liability of outsidership, firms need to learn and accumulate knowledge. More specifically, outsidership can be overcome by experiential *direct* learning, i.e., learning through own experience, and experiential *indirect* learning, i.e., learning from the experiences of others (Bingham & Davis, 2012). By learning from the experience of others we do not mean, as in the Uppsala model, only imitative learning from competitors, or through the acquisition of another firm, or by

making use of the knowledge of network partners, i.e., *indirect* learning from an *external* source. We mean also the possibility of *indirect* learning from *MNE-internal* sources, in the sense that subsidiaries can learn from other units of the MNE. This is a clear difference with the Uppsala model in that we acknowledge explicitly the dispersed and unbalanced distribution of knowledge among different units within the MNE. Johanson and Vahlne (1977, 2009) put gaining experience, i.e., learning, and accumulating knowledge, at the heart of both their initial internationalization model and their revised ones. They add network relationships to the sources from which knowledge can be gained, thereby focusing on knowledge absorption from external sources to recipients within the firm. However, they do not explain what happens with the knowledge that has been gained once it is inside the firm; it seems that it is simply supposed to land and subsequently to be in some way distributed in the black box of the MNE.

Experiential indirect learning allows the firm to benefit from knowledge stocks previously accumulated in the MNE’s portfolio of subsidiaries. An MNE is a firm that has already gained international experience and thus has accumulated knowledge on how to compete in foreign contexts. Those stocks of knowledge differentiate MNEs from purely domestic firms as well as from one another. A global MNE differs from a local MNE in the volume and quality of knowledge about international activities and the environments within which those activities are successfully conducted (Rugman & Verbeke, 2001, 2004). When MNEs internationalize further, they can build upon already accumulated knowledge stocks inside the firm that have been developed on the basis of information that initially came from outside it. Neither in the previous iterations of the Uppsala Model nor in its newest update, do Vahlne and Johanson (2017) explicitly discuss the availability or distribution of knowledge inside the firm.

Our study contributes to the literature on learning and knowledge in the internationalization process by opening up the black box assumed in extant research. We extend the knowledge absorption process from external, local networks to the MNE or local subsidiary (stage 1). As illustrated in Figure 1, we do this by further considering knowledge transfer inside the MNE from the local subsidiary to the actors engaged in preparing and executing future market entries, i.e., the corporate head office (or equivalent thereof) (stage 2).² We

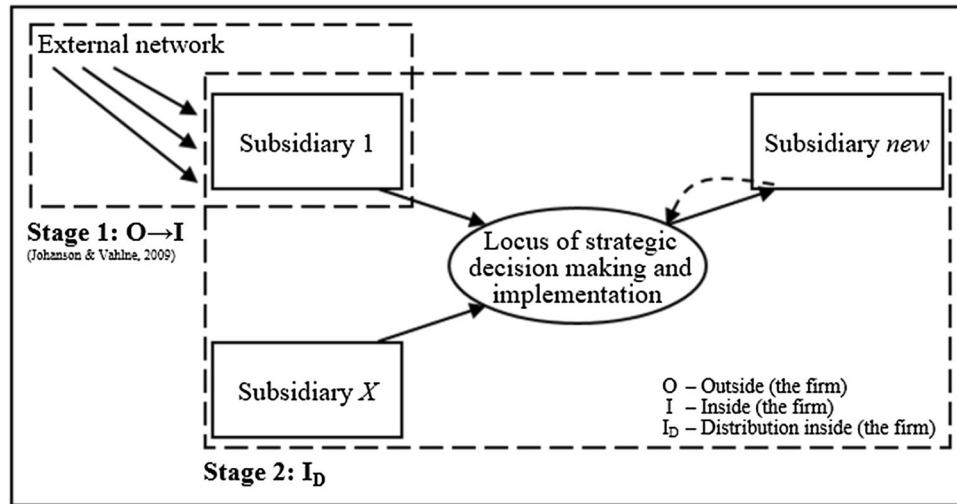


Figure 1 Process of corporate knowledge absorption and distribution.

recognize the possibility of transferring knowledge directly from an existing subsidiary to a newly-created subsidiary. However this rarely occurs, so we focus on the path of knowledge distribution through actors at headquarters responsible for preparing and executing an expansion move. When an MNE internationalizes further, it can benefit from previously gained experience with similar activities. Transferring such knowledge reduces complexity and uncertainty in each expansion step. This is an advantage for MNEs that own a portfolio of subsidiaries.

In addition to the conceptual contribution of looking at the MNE subsidiary portfolio as a source of knowledge, we also contribute to the body of empirical research by introducing the concept of added distance as an empirical proxy for the complexity and uncertainty involved in entering a new market. When firms grow internationally they tap into foreign markets in which they are outsiders. The more the firm is an outsider, the more complex and uncertain the internationalization activities in the new context. That is, different levels of outsidership drive the amount of complexity and uncertainty in a firm's internationalization process. The concept of added distance allows for empirically assessing and mitigating different levels of outsidership, and thereby measures the knowledge gap to be addressed by MNEs in foreign markets.

In the following sections, we take a theoretical look at the role played by learning and knowledge in the internationalization process. We first outline the Uppsala internationalization process model,

then we analyze the most influential theoretical contributions regarding it, after which we further develop internationalization theory. There are a number of possible knowledge sources proposed in the extant literature.³ We focus on the accumulated knowledge stock in an MNE's portfolio of subsidiaries, which will ultimately determine the knowledge available to the actors engaged in preparing and executing an expansion move. In a second step, we take an empirical perspective. After reviewing past empirical contributions, we make suggestions on how to improve future empirical research.

KNOWLEDGE AND LEARNING IN THE PROCESS OF INTERNATIONALIZATION

The Uppsala internationalization process model (Johanson & Vahlne, 1977; Johanson & Wiedersheim-Paul, 1975) is the dominant model in IB explaining internationalization. According to it, experiential learning and knowledge accumulation are the driving forces of internationalization.

The Uppsala Internationalization Process Model and the Knowledge-Based Theory

The Uppsala model predicts a basic mechanism composed of two state aspects, market knowledge and market commitment, and two change aspects, commitment decisions and current activities (Johanson & Vahlne, 1977). The firm's past commitment decisions and foreign activities affect its present internationalization state and that state in turn influences subsequent commitment decisions

and activities. The model postulates an incremental internationalization pattern, i.e., a management learning process in which learning-by-doing is the basic logic (Johnson, 1988; Lindblom, 1959; Quinn, 1980). Based on the above, the model predicts that firms will invest in one or a few neighboring countries, as opposed to investing in several at the same time. Each foreign investment will be done carefully, successively, and in conjunction with the experiential learning. Finally, according to the model, firms select and enter new markets at increasingly greater psychic distance from the home market and thus foreign market investment develops according to a progressive establishment chain of operational modes (Johanson & Vahlne, 1990).

The Uppsala model is based on the assumption that lack of knowledge about foreign markets is the most important hurdle to international operations. A lack of knowledge of country characteristics results in a liability of foreignness that increases the risk of operations in that country (Hymer, 1976) and leads to greater complexity and uncertainty because a larger and more differentiated set of organizational units must be managed (Fredrickson, 1986). This eventually results in greater uncertainty and still more challenges in achieving sustainable and successful operations abroad (Vermeulen & Barkema, 2002; Wagner, 2004). However, a firm can gain experiential knowledge (Johanson & Vahlne, 1977: 23), which then acts as a driving force in the internationalization process (Johanson & Vahlne, 1990: 11). The main source of that tacit market knowledge is the firm's own operations (Johanson & Vahlne, 1990: 12). Hence internationalization is a learning process – or a process of knowledge accumulation.⁴

Johanson and Vahlne (2009) emphasize again in their revised model the importance of knowledge and especially experiential knowledge from current foreign activities. They build on a distinction Penrose (1959) makes between two types of knowledge needed by firms. The first, objective knowledge, is explicit but not tied to any particular individual or group of individuals. Therefore it can be accessed easily. For instance, all firms need objective knowledge about governmental approval requirements, competition law, market statistics, and technical standards in force in the foreign market, as well as about prices, tastes, and so on. The second type is experiential knowledge that is implicit and can be gained only through personal experience. It is the latter that is a critical source of

knowledge for the development of international operations.

Johanson and Vahlne (1977) also differentiate between general and market-specific knowledge. General knowledge includes marketing methods and common characteristics of certain types of customers, irrespective of their geographic location. Market-specific knowledge on the other hand comprises characteristics of a specific foreign market. Whereas general knowledge can be transferred easily from one locale to another, market-specific knowledge can only be gained within the respective host market.

Objective knowledge can be absorbed by firms comparatively easily and quickly (Grant, 1996; Petersen et al., 2008). In contrast, experiential knowledge requires more time-consuming interactions. It is stored within the company as routines (Nelson & Winter, 1982), with further experiential knowledge resulting in adjustments in routines and administrative structures (Eriksson, Johanson, Majkgard, & Sharma, 1997); thus, experiential knowledge is mostly specific to a firm and its context (Johanson & Vahlne, 2003). As we have seen, it can be gained directly or indirectly.

Johanson and Vahlne revised their model in 2009. Whereas the original model discussed the possibility of accessing knowledge by direct learning, the revised one also includes indirect learning from external sources. However, it does not explicitly discuss indirect learning from MNE-internal sources. There is no description of how an evolving portfolio of subsidiaries leads to the accumulation of particular knowledge stocks which are critical to indirect experiential learning – and therefore potentially instrumental to subsequent expansion moves. General knowledge, gained in a previously established foreign subsidiary via direct learning and indirect learning from outside, which includes general business, institutional, and internationalization knowledge (Eriksson et al., 1997) is assumed to be non-location bound and therefore usually easily transferable within the MNE (see Figure 1).

It is possible to transfer knowledge within the firm, but it is not necessarily easy (Argote, 2005; Argote & Miron-Spektor, 2011; Huber, 1991; Levitt & March, 1988). Given the critical nature of knowledge absorption and transfer in the MNE, much research has been conducted on how it is affected by its characteristics (Szulanski, 1996; Zander & Kogut, 1995), sources (Foss & Pedersen, 2002), senders (Gupta & Govindarajan, 2000; Lane, Salk, & Lyles, 2001), and recipients (Gupta &



Govindarajan, 2000; Szulanski, 1996), as well as the relationship between senders and recipients (Bresman, Birkinshaw, & Nobel, 1999; Simonin, 1999), and their absorptive capacity (Lane & Lubatkin, 1998; Minbaeva, Pedersen, Bjorkman, Fey, & Park, 2003). A key insight generated by that literature is that knowledge may be transferred across dispersed organizational units. So knowledge is not only absorbed directly or indirectly from external sources, but also from internal organizational units (Bandura, 1977; Bingham & Davis, 2012; Huber, 1991). Indeed, according to extant research, transferring knowledge across dispersed organizational units inside the firm is vital to its success (Bartlett & Ghoshal, 2002; Hedlund, 1994; Kogut & Zander, 1993): the ability to leverage knowledge across national borders has even been characterized as the *raison d'être* of MNEs (Asakawa & Lehrer, 2003; Kogut & Zander, 1992, 1993; Mahnke & Pedersen, 2004; Monteiro, Arvidsson, & Birkinshaw, 2008; Mudambi, 2002; Mudambi & Navarra, 2004).

Theoretical Contributions from Highly Cited Internationalization Papers on the Subsidiary Portfolio as a Knowledge Source

In this section, we analyze whether and how the most cited internationalization studies conceptually consider the subsidiary portfolio as a source of knowledge. We briefly review the most cited publications on MNE internationalization in peer-reviewed journals.⁵ Our final list includes 21 internationalization studies, six conceptual (Andersen, 1993; Johanson & Vahlne, 2009; Jones & Coviello, 2005; Luo & Tung, 2007; Weerawardena, Mort, Liesch, & Knight, 2007; Welch & Luostarinen, 1988) and 15 empirical (see Table 1). Based on our conceptual approach as described above, we reviewed the most cited internationalization studies with regard to their conceptual treatment of the following key dimensions: internationalization process, (experiential) learning, knowledge stock accumulation, and MNE portfolio of subsidiaries.

Internationalization process

The studies explicitly take the internationalization process into account, with three exceptions: Gomes and Ramaswamy (1999) implicitly investigate the internationalization process by evaluating the form of the relationship between multinationality and performance using time-series techniques to also capture dynamic components of the relationship. Barkema and Vermeulen (1998) investigate the international expansion of the firm with a focus

on the entry mode decision (start-up vs. acquisition). Luo and Tung (2007) analyze the abrupt internationalization of MNEs from emerging markets. Eleven of the 21 internationalization studies considered the Uppsala internationalization process model. A few also refer to new venture internationalization theories (Autio, Sapienza, & Almeida, 2000; Crick & Spence, 2005; Lu & Beamish, 2001; Weerawardena et al., 2007). Luo and Tung (2007) develop their own springboard perspective for emerging market MNEs and use the organizational learning and experience-related part of the Uppsala model (Johanson & Vahlne, 1977, 2009) to support their argumentation, but develop their own model. The remaining studies consider the resource-based theory of the firm (Geringer, Tallman, & Olsen, 2000) or build their own phased model of internationalization (Lu & Beamish, 2004).

(Experiential) learning

Twenty of the internationalization studies consider learning in a section devoted to theory and state the importance of experiential learning to the internationalization of companies. While Johanson and Wiedersheim-Paul (1975) implicitly consider (experiential) learning, few of the studies are *explicitly* based on a learning perspective (Barkema, Bell, & Pennings, 1996; Barkema & Vermeulen, 1998; Delios & Henisz, 2003; Johanson & Vahlne, 1977) or on a knowledge-based theory (Autio et al., 2000). All of the studies in our sample take into account learning and experience – at least *implicitly*, with the sole exception of that of Gomes and Ramaswamy (1999), and this is probably because their focus is on multinationality (as a state), not internationalization (a process), although they do investigate multinationality over time.

Knowledge stock accumulation

Knowledge stock or knowledge stock accumulation, are considered explicitly in 12 of the 21 studies. Three studies implicitly include knowledge stock accumulation (Johanson & Wiedersheim-Paul, 1975; Weerawardena et al., 2007; Welch & Luostarinen, 1988) and three more at least mention it as an issue or construct (Benito & Gripsrud, 1992; Crick & Spence, 2005; Lu & Beamish, 2004). Buckley, Clegg, Cross, Liu, Voss, & Zheng (2007) do not refer to knowledge stock accumulation, even though they do consider (experiential) learning. Geringer et al. (2000), following the resource-based theory of the firm, refer to organizational capabilities or core

Table 1 Overview of most cited internationalization studies and investigation of theory and empirics

#	Paper	Citation record ¹			Theory			Empirics				
		Web of Science	Google Scholar	Internat. (process)	(Experiential) learning	Knowledge stock acc.	Portfolio of subsidiaries	Method ²	Internat. (process)	(Experiential) learning	Knowledge stock acc.	Portfolio of subsidiaries
1	Johanson and Vahine (1977)	2532	10,981	Yes	Yes	Yes	No	CS	Establishment chain	Gaining experience	# Countries, # / nature operations abroad	No
2	Johanson and Wiedersheim-Paul (1975)	837	3925	Yes	Yes (implicitly)	Yes (implicitly)	No	CS	Establishment chain	Gaining experience	Firm age, firm size, founders experience, # years operating abroad	No
3	Autio, Sapienza, & Almeida (2000)	744	2523	Yes	Yes	Yes	No	LS, Q, S	International sales growth	-	Entry age, firm age, knowledge intensity	No
4	Johanson & Vahine (2009)	624	2422	Yes	Yes	Yes	No (cf. external networks)	C	-	-	-	-
5	Luo & Tung (2007)	592	1579	No	Yes	Yes	No (cf. EM MNEs learn from global players)	C	-	-	-	-
6	Barkema, Bell, & Pennings (1996)	581	2062	Yes	Yes	Yes	No	LS, Q, SD	-	Foreign experience, cultural blocks	Longevity, firm size	No
7	Barkema & Vermeulen (1998)	528	1764	No	Yes	Yes	No (cf. divisions)	LS, Q, SD	Multinational diversity, Entropy measure of diversity	Local experience	Firm size	No
8	Lu & Beamish (2001)	519	1944	Yes	Yes	Yes	No (cf. alliance partners)	LS, Q, SD	Exporting, FDI activities	-	Size of the SME	No
9	Buckley, Clegg, Cross, Liu, Voss, & Zheng (2007)	499	1671	Yes	Yes	No	No	LS, Q, SD	FDI	Proprietary ownership advantage endowments	-	No
10	Lu & Beamish (2004)	355	998	Yes	Yes (side note)	Yes	Partially	LS, Q, SD	FDI activities	-	Firm size	No
11	Andersen (1993)	311	2008	Yes	Yes	Yes	No	C	-	-	-	-
12	Chang (1995)	300	945	Yes	Yes	Yes	No (cf. other firms, corp. networks)	LS, Q, SD	Export ratio	-	Accumulated entries, [company size]	No. But: Business group member
13	Jones & Coviello (2005)	265	852	Yes	Yes	Yes	No	C	-	-	-	-
14	Weich & Luostarinen (1988)	240	1921	Yes	Yes	Yes	No	C	-	-	-	-



Table 1 (Continued)

#	Paper	Citation record ¹		Theory			Empirics					
		Web of Science	Google Scholar	Internat. (process)	(Experiential) learning	Knowledge stock acc.	Portfolio of subsidiaries	Method ²	Internat. (process)	(Experiential) learning	Knowledge stock acc.	Portfolio of subsidiaries
15	Gomes & Ramaswamy (1999)	223	840	Implicitly	No	No	No	LS, Q, SD	Multinationality	–	Firm size	No
16	Delios & Henisz (2003)	217	485	Yes	Yes	Yes	No	LS, Q, SD	Entry	Country spread	Int. experience, firm size	No
17	Geringer, Tallman, & Olsen (2000)	206	708	Yes	Yes	No	No	LS, Q, SD	International diversity	–	Firm size	No
18	Vermeulen & Barkema (2002)	201	526	Yes	Yes	Yes	Partially	LS, Q, SD	Geographic scope	Speed	Foreign subsidiaries, firm size	No
19	Benito & Gripsrud (1992)	152	634	Yes	Yes	Yes (side note)	No	LS, Q, SD	FDI	–	–	No
20	Crick & Spence (2005)	129	445	Yes	Yes	Yes (side note)	No (cf. external networks)	CS	Internationalization strategies	Entrepreneurial learning of the mgt. team	Experience mgt. team	No <i>But:</i> Networks of owners/mgrs
21	Weerawardena, Mort, Liesch, & Knight (2007)	164	542	Yes	Yes	Yes	No (cf. market, external network, internal)	C	–	–	–	–

¹ As of April 17, 2017

² Abbreviations used in the Methods column are: Case study (CS), Large-scale (LS), Quantitative (Q), Secondary Data (SD), and Survey (S), Conceptual (C).

competencies (Prahalad & Hamel, 1990), which can be related to the knowledge stock of a company. As Gomes and Ramaswamy (1999) do not take into account learning or experience, they do not incorporate knowledge stock accumulation.

MNE portfolio of subsidiaries

None of the studies take into account the MNE's portfolio of subsidiaries as a potential source of knowledge. However, Vermeulen and Barkema (2002: 639) do write that "learning from foreign subsidiaries" is a potential benefit of internationalization. Also, Lu and Beamish (2004: 599) mention that "a firm's subsidiaries in disparate host countries can help to enhance its knowledge base (...) through experiential learning". Yet in neither case is the argument elaborated upon or considered in detail. In other studies there are discussions about the possibility of learning from different divisions of the same firm (Barkema & Vermeulen, 1998), from other firms, especially in corporate networks (Chang, 1995), or from foreign alliance partners (Lu & Beamish, 2001). Luo and Tung (2007) recognize that emerging market MNEs can learn to internationalize by cooperating with the foreign MNEs which have entered their home market. Furthermore, Weerawardena et al. (2007) list different knowledge sources that born global firms can use: the market, the firm's network of relationships, and "learning that is harnessed internal to the firm itself" (p. 298). Finally, Crick and Spence (2005) argue that external personal or business networks facilitate gaining experiential knowledge.

In summary, although the most impactful papers build on the theoretical assumptions of experiential learning, explicit discussion about the opportunities of indirect experiential learning through the portfolio of subsidiaries is largely absent. Adopting a black box approach as to how this process unfolds neglects the intricacies of knowledge absorption and diffusion in the MNE.

Further Developing Theory on Learning and Knowledge Stock Accumulation in the Internationalization Process

Knowledge stock accumulation for internationalizing companies that do not yet have international operations is different than for ones already active in foreign markets. The latter are MNEs, i.e., they consist of several inter-connected, semi-autonomous units operating in several different industries and markets (Foss & Pedersen, 2002; Ghoshal & Bartlett, 1990; Gupta & Govindarajan,

2000; Hedlund, 1994). The following hypothetical case illustrates the difference in knowledge stock accumulation between purely domestic firms and MNEs: Two German companies *X* and *Y* are about to enter Brazil. Whereas company *X* is so far only active in its own domestic market, established multinational *Y* has more than 30 years of experience in various foreign markets including Argentina, Chile, and Peru. Furthermore, *Y* has a dispersed network of closely cooperating subsidiaries. Which of the two companies, *X* or *Y*, will probably face more challenges when entering Brazil, i.e., for which firm will the knowledge gap be greater? Suppose we extend the case further by adding German firm *Z*, also an established multinational which has several decades of experience in many foreign markets. *Z* has experience in North, but not South America. One could reasonably argue that *Y*, the company with South American experience, would have fewer difficulties on entering Brazil.

A company that is active in various foreign markets has accumulated international experience and knowledge. An MNE's knowledge stock consists of the experiences – and the knowledge – accumulated over time from all of its units, i.e., by its portfolio of subsidiaries. No two MNEs are identical. Each MNE develops its own, unique internationalization patterns, and has its own distinct knowledge stocks, which can be shared and used in further international expansion steps. Knowledge stocks should not be seen as homogeneous asset reservoirs; not all knowledge is equally important for a given foreign investment. They have two dimensions: (1) geographic origin and source and (2) transferability across the MNE and accessibility. Transferable and accessible knowledge can be subcategorized according to its relevance for a given international expansion move.

There are other ways to gain knowledge than through managers' own direct experience. As suggested above, knowledge can originate from a variety of loci within the company and then be transferred further. Recall that knowledge can also be gained through indirect learning from others within an MNE. Potential knowledge sources that fall under the heading of "others" include not just headquarters, but any MNE organizational unit.⁶ Knowledge transfer within MNEs can take place from headquarters to subsidiaries, from subsidiaries to headquarters and then to other subsidiaries, or from subsidiary to subsidiary (Birkinshaw, 2002; Moore & Birkinshaw, 1998; Ambos, Ambos, &



Schlegelmilch, 2006). Therefore the knowledge stock from the MNE's entire portfolio of foreign subsidiaries – including the home country – could in principle support the organizational unit responsible for entering a foreign market. Here, the newly established foreign subsidiary's relatedness to the MNE's existing portfolio of subsidiaries will vary. Existing subsidiaries with the highest relatedness to the new foreign subsidiary may include those active in the same market, or the next most similar foreign market. We refer to the existing subsidiary active in the most similar market as the “closest neighbor”. This is important since, as Baum and Dahlin (2007: 370) have argued, “the value of others' experience for learning depends on comparability; the more comparable the organizations, the more similar the situations they face, and the greater the potential relevance of their experience”.

In order to support the establishing of foreign subsidiaries, the MNE's existing knowledge stock must be transferable and relevant (Szulanski, 1996). Whereas objective knowledge is comparatively easily transferable, the transfer of experiential knowledge is more challenging. Yet this type of knowledge is crucial to internationalization, hence it is the focus of this article. Experiential knowledge is more difficult to transfer because the knowledge and the individual who owns it are intertwined. As Penrose (1959) asserts, an experience itself may not be transferable to others, but experience generates knowledge, and knowledge may indeed be transferable to others. In fact, the literature on organizational learning has shown that experience-based knowledge may be transferred between different units of an organization (Argote, 2005; Argote & Miron-Spektor, 2011; Huber, 1991; Levitt & March, 1988). A distinction does need to be made between non-location-bound and location-bound firm-specific advantages (FSAs). Non-location-bound FSAs can be transferred to foreign operations and can therefore be exploited internationally and in the extreme case, even globally (Rugman & Verbeke, 1992, 2003, 2004). Advantages strongly embedded in subsidiaries, subsidiary-specific advantages (SSAs) (Rugman & Verbeke, 2001), can sometimes be exploited internationally, but they may also be locally embedded, making transfer difficult.

Eriksson et al. (1997) make a further distinction between experiential knowledge of internationalization, as opposed to experiential knowledge of foreign business and of foreign institutions. While the former is neither country-specific nor mode-

specific, making knowledge gained through previous expansion moves into foreign markets relevant to all future expansion steps, the latter two are country-specific. Nonetheless, we argue that they can also be relevant to further expansion steps, for instance when a new market is similar, or close to, ones already in the portfolio, with similarity and closeness defined in cultural, administrative, geographic, and economic terms (Ghemawat, 2001).

Knowledge stocks located in the home country or in host countries are either non-location-bound firm-specific advantages (FSAs) or location-bound ones depending on transferability across the MNE. Non-location-bound knowledge stocks accumulated through the portfolio of subsidiaries in the home country and host countries that are relevant to international expansion are useful for future international expansion steps.

Managers responsible for entering foreign markets can in principle make use of the MNE's entire knowledge stock (Szulanski, 1996). However, they must be able to internalize the relevant and transferable knowledge (Cohen & Levinthal, 1990; Sharma & Blomstermo, 2003; Szulanski, 1996; Zahra & George, 2002). Yet all organizational units are limited in the amount of knowledge they can integrate (Cohen & Levinthal, 1990; Zahra & George, 2002). Therefore it is likely that only some of the dispersed organizational units of an MNE will transfer knowledge to the one responsible for a given foreign market entry. The former can be seen as knowledge sources for the recipient unit (Sharma & Blomstermo, 2003; Szulanski, 1996). This argument can be given a Penrosean interpretation: International expansion into new local contexts is one type of company growth, and it is one constrained by available managerial resources (Penrose, 1959). MNEs entering new foreign contexts are outsiders and they have to invest in transferring existing resources to any new subsidiaries and in recombining their extant resource bases with any newly acquired or developed resources of the new locale (Augier & Teece, 2007, Hutzschenreuter, Voll, & Verbeke, 2011).

The literature shows that firms develop region-bound firm-specific advantages (RFSAs) by integrating subsidiaries on a regional level (Rugman & Verbeke, 2005). The development of RFSAs may be facilitated by regional headquarters. For instance, Arregle, Beamish, and Hébert (2009) hypothesized that a firm's prior foreign subsidiary activity at the regional level partly determines the number of subsequent foreign subsidiaries in a country, and

found that MNEs seek regional agglomeration benefits and make arbitrage decisions between countries in the same region. According to Enright (2005), regional management centers perform a series of governance and functional activities for the subsidiaries in the region. One reason for regional concentration of activities may be to reduce the liability of foreignness or outsidership (Zaheer & Manrakhan, 2001). A firm is able to manage through a regional hub a number of regional subsidiaries, and the hub need not be in the home country, rather it can be in any country within the region (Buckley & Ghauri, 2004).

Companies with regional structures may be better at absorbing outside knowledge from the region and then disseminating it within the regional portfolio of subsidiaries, hence regional headquarters can offer a relatively easy way of accumulating knowledge stocks in a region. Regional headquarters can be responsible for growing the business and for developing knowledge as well as for distributing it to subsidiaries within the region (Ambos & Mahnle, 2010); and they will probably be better at it than the corporate head office. Expansion moves within a region are likely to be performed by regional headquarters. The downside of a regionally structured MNE is that less information goes to the corporate head office resulting in less transfer of knowledge between regions. Thus if the corporate head office wants to expand within a region, it should build upon the knowledge stocks developed in that region and consult with the regional headquarters.

These theoretical considerations bring us to the role of time. The internationalization process unfolds over time (Johanson & Vahlne, 1977; Jones & Coviello, 2005). Firms accumulate knowledge in a dynamic process and change their levels of engagement abroad through investments and divestments over time as well (Argote & Miron-Spektor, 2011; Forsgren, 2002; Welch & Luostarinen, 1988).⁷ Moreover, when entering a foreign market the focal unit relies on knowledge sources that can vary over time. We have seen that experience is gained with any expansion step abroad. The number of knowledge sources in the portfolio also changes with each step. Hence by gaining experience within and across foreign contexts, MNEs change their overall knowledge stock – it evolves over time. Any knowledge gap a company has upon entering a new country changes with time as well. In other words, the MNE learns over time and its knowledge stock changes accordingly.

Newly gained knowledge is not immediately available. It takes time for an organizational unit to absorb the knowledge applicable to a specific context and then to transfer it to another organizational unit (Pedersen & Petersen, 2004; Petersen et al., 2008). For instance, in a case study-based paper by Child, Ng, and Wong (2002), the companies studied took 4.7 years on average to digest and learn from their experiences. Hence looking at an MNE's "closest neighbor" subsidiary as a knowledge source without taking into account the time dimension can result in an overestimation of the potential for indirect learning as that subsidiary may not have had the time to gain sufficient context-specific knowledge. So, it makes a difference *when* a specific MNE enters a given foreign market.

EMPIRICAL TREATMENT OF KNOWLEDGE AND LEARNING IN THE PROCESS OF INTERNATIONALIZATION

Empirical Contributions from the Uppsala Model and Other Sources to the Concept of the Subsidiary Portfolio as a Knowledge Source

In this section, we analyze whether the most cited internationalization studies empirically take into account the constructs in which we are interested – the internationalization process, (experiential) learning, knowledge stock accumulation, and an MNE's portfolio of subsidiaries – and if so, how they measure them. Table 1 summarizes the results of our investigation and describes the measures where applicable.

In the following we consider the 15 most cited *empirical* studies from the full list of 21 articles. Twelve of the 15 take a large-scale, quantitative approach, 11 of them building upon secondary data, with only Autio et al. (2000) using self-collected survey data. The remaining three studies adopt a qualitative case study approach (Crick & Spence, 2005; Johanson & Vahlne, 1977; Johanson & Wiedersheim-Paul, 1975).

Internationalization process

In four studies, the internationalization process is investigated as a dependent construct (Autio et al., 2000; Benito & Gripsrud, 1992; Buckley et al., 2007; Delios & Henisz, 2003), whereas most other studies consider it as an independent construct (Barkema & Vermeulen, 1998; Geringer et al., 2000; Gomes & Ramaswamy, 1999; Lu & Beamish, 2001, 2004;



Vermeulen & Barkema, 2002). In many cases, internationalization is measured, either solely or in combination with other measures, as the number of host countries in which the focal company is active (Barkema & Vermeulen, 1998; Gomes & Ramaswamy, 1999; Lu & Beamish, 2001, 2004; Vermeulen & Barkema, 2002). Lu and Beamish (2001, 2004) measure internationalization by the number of overseas subsidiaries. The studies by Chang (1995), Geringer et al. (2000), and Lu and Beamish (2001) also include export measures. The articles using a case study approach do investigate the internationalization process in terms of the establishment chain (Johanson & Vahlne, 1977; Johanson & Wiedersheim-Paul, 1975) or the internationalization strategies applied by the companies (Crick & Spence, 2005).

(Experiential) learning

Few of the studies empirically consider the process of (experiential) learning. Barkema et al. (1996: 157) operationalize the level of foreign experience by “the log of all foreign expansions that the firm had undertaken” and thereby assume that firms learn from their previous experiences at a decreasing rate. Moreover, they measure foreign experience by the “log of the number of previous expansions of the firm in the same host country”. Finally, they include two proxies of locational learning based on cultural blocks identified by Ronen and Shenkar (1985), the number of previous expansion steps in countries within the host country’s cultural block, and steps into cultural blocks closer to the home country’s than to the host country’s cultural block. Vermeulen and Barkema (2002) measure the speed of internationalization with the average number of foreign subsidiaries created per year and alternatively with the number of years since the firm’s first foreign expansion step. Both measures lead to identical results and can also be interpreted as measuring (experiential) learning.

Knowledge stock accumulation

Mainly included as the independent variable in different studies, knowledge stock accumulation is measured variously by years of experience (Barkema et al., 1996; Delios & Henisz, 2003), number of foreign subsidiaries (Vermeulen & Barkema, 2002) or number of previous entries (Chang, 1995). While Autio et al. (2000) use firm age, ten of the 15 studies include as a control variable firm size as a proxy for knowledge stock accumulation (Autio et al., 2000; Barkema et al., 1996; Barkema &

Vermeulen, 1998; Chang, 1995; Delios & Henisz, 2003; Geringer et al., 2000; Gomes & Ramaswamy, 1999; Lu & Beamish, 2001, 2004; Vermeulen & Barkema, 2002).

MNE portfolio of subsidiaries

None of the 15 empirical internationalization studies views the MNE as a portfolio of subsidiaries. “Other knowledge sources” are measured in various ways. Barkema and Vermeulen (1998) operationalize learning from other subsidiaries by product relatedness. Chang (1995) uses a dummy variable for measuring learning from other firms or business groups. Finally, Lu and Beamish (2001) operationalize learning from alliance partners by the presence of equity joint ventures with home or host country partners. They find that local host country partners provide a direct source of crucial local knowledge, whereas home country partners “may or may not possess local knowledge about specific locations and hence present a less direct and reliable source of local knowledge to SMEs” (Lu & Beamish, 2001: 580).

In summary, our review of 15 empirical internationalization studies confirms what we have found when analyzing the theoretical perspectives on experiential learning. They consider direct learning, but adopt an empirical black box approach to measuring benefits of indirect experiential learning through the MNE’s portfolio of subsidiaries: Experiential knowledge supposedly present in one of the MNE’s units is also expected to be fully and evenly distributed across the firm, and accessible to all.

In addition to these studies, we also analyzed more recently published ones. Only a few of these implicitly take into account the MNE’s subsidiary portfolio by applying the concept of added distance. None of them adopt an explicit learning perspective, but all of them consider (experiential) learning and knowledge (accumulation). Hutzschenreuter and Voll (2008) introduced the concept of added distance. They study the performance effects of added cultural distance as a proxy for complexity in the internationalization of MNEs. To measure added cultural distance, they compute the distance between every newly established subsidiary and all already existing subsidiaries and take the smallest distance – thereby taking into account the MNE’s portfolio of subsidiaries as a potential knowledge source. The concept is further developed from a Penrosean perspective to show that the rate of further international expansion slows in subsequent periods when MNEs have to cope in the

preceding period with added cultural distance (Hutzschenreuter et al., 2011). Furthermore, Hutzschenreuter and Horstkotte (2013) demonstrate that the experience of top management teams positively moderates the relationship between added cultural distance and firm profitability. In recent years, the added distance approach has been empirically applied in other studies, mostly as a control variable (Mohr & Batsakis, 2017; Powell, 2014) or as a robustness check (Ref, 2015). Hashai (2011) investigates the internationalization process of born global firms and uses added cultural distance to measure “expansion of geographic scope”, the dependent variable. He finds a negative effect of added geographic scope on foreign expansion. Schu, Morschett, and Swoboda (2016) also take into account added distance as an independent variable when investigating the internationalization speed of online retailers. Finally, a conceptual study on the role of headquarters–subsidiary geographic distance in strategic decisions by spatially disaggregated headquarters refers to the added cultural distance concept (Baaij & Slangen, 2013). They then measure corporate headquarters–subsidiary communication costs by taking the geographic distance between the focal subsidiary and the “partial” head office closest to the subsidiary.

Further Developing Empirical Research on Learning and Knowledge Accumulation in the Process of Internationalization

Upon entering a foreign country an MNE faces a liability of foreignness (Hymer, 1976), due to its lack of roots in the foreign market (Zaheer, 1995).

In fact, many of the challenges MNEs face on entering a foreign market originate from not knowing business practices and customs there (Petersen et al., 2008), i.e., from a lack of understanding of market intricacies (Johanson & Vahlne, 2003). Managers responsible for preparing and executing an expansion step will struggle to close the gap between the knowledge available to them and the knowledge needed for successful operations (Petersen et al., 2008); this in turn shapes the MNE’s international expansion process (Eriksson, Majkgard, & Sharma, 2000).

As shown in Figure 2, there are two knowledge sources that are especially crucial for further international expansion moves: strongly relevant, home-country, non-location-bound ones, and strongly relevant, host-country, non-location-bound ones. The question is which should be taken into account when assessing the knowledge gap faced by a (further) internationalizing company expanding into a new market. According to the traditional home country approach, the relevant distance is that between the home country and each host country. As a consequence, all experiential learning would de facto occur in the home country. We propose three other possible approaches based on the (1) MNE subsidiary portfolio, (2) relevant (regional) cluster, or (3) closest neighbor. We explain below.

Home country

Internationalization process research has so far mainly focused on learning in – or through – the home country and assessed the knowledge gap between what is known by MNE headquarters and

Transferability across MNE & relevance for international expansion

		Location bound	Non-location bound	
			Home country non-location bound	
Geographic origin of knowledge source (FSA)	Home country	Home country location-bound	Weakly relevant	Strongly relevant
	Host countries / Portfolio of foreign subsidiaries	Host countries location-bound	Weakly relevant	Strongly relevant

■ = Instrumental to a potential future international expansion.

Figure 2 Categorization of MNE knowledge stocks.



what is needed in the country of a newly established subsidiary (Johanson & Vahlne, 1977; Kogut & Singh, 1988). The home country is usually seen as the locus of strategic decision-making and implementation. This approach (shown in the upper right quadrant of Figure 2), is based on two implicit assumptions: (1) knowledge other than that of the home country is not considered nor used by a newly established subsidiary; and (2) a newly-established subsidiary relies only on experience gained in or through the home country.

The home country approach can be meaningfully applied under certain conditions, such as when a firm is either just starting, or in the early stages of internationalization (e.g., Johanson & Wiedersheim-Paul, 1975), as it is then reasonable to assume that the only substantial market-specific knowledge a firm possesses is about the home country. The home country approach also makes sense for firms following an international strategy in terms of Bartlett and Ghoshal's (2002) strategic archetypes. For companies with an international strategy, the home country plays a major role and is responsible for knowledge development as well as for its diffusion. This strategy resembles early theoretical work on internalization (Buckley & Casson, 1976; Dunning, 1981; Hennart, 1982; Hymer, 1976) in which MNEs are conceptualized as hierarchical organizations in which headquarters exerts considerable influence on subsidiaries because of technological and brand name strengths. Centralized strategic decision-making and a head office-driven corporate culture reflect the dominance of headquarters in such firms. It is important to note that in this context the corporate head office is usually responsible for market selection and entry mode choice (Forsgren, 2002; Forsgren & Johanson, 2010). Moreover, head office executives who are making the strategic decisions are usually natives of the MNE's home country and do not always possess substantial international experience. Therefore it is likely that under such circumstances strategic decisions about international expansion are largely made with a home country lens. Finally, if the MNE's portfolio of subsidiaries is very heterogeneous, which means that little inter-subsidiary learning occurs, or if foreign penetration is limited, the home country approach can be meaningfully applied.

However, this approach does not take into account how much a company has already internationalized. One could say that in the extreme case, it does not distinguish between a purely

domestic firm starting to internationalize and an already internationalized MNE. It also does not allow for differentiating between two MNEs that have followed a different internationalization pattern and therefore have developed their own distinct knowledge stock over time. Considering only knowledge stored in the home country of the MNE does not do justice to the MNE's entire knowledge stock, and so is likely to lead to a distorted assessment of the extent of the knowledge gap. As a result, the complexity of entering a new market abroad and the knowledge gap can be overestimated. Indeed, prior research has demonstrated that performance is less severely affected by distance when the MNE has more knowledge (Cho & Padmanabhan, 2005; Eriksson et al., 1997; Masen & Servais, 1997).

Research on organizational learning suggests that the home country is by no means the only knowledge source a focal unit can draw upon when entering a new market (Argote, 2005; Argote & Miron-Spektor, 2011; Huber, 1991; Levitt & March, 1988). We think that it is, in fact, imperative that all of the knowledge sources that are available and relevant to the subsidiary be considered in order to alleviate the challenges associated with entering a foreign market. It is clear then that such knowledge can be assessed on different levels, country, regional, and global.

As reinventing the wheel "is a serious waste of time when the requisite knowledge is already contained in other parts of the organization" (Bresman et al., 1999: 441), it is in the interest of MNEs, and more specifically of those responsible for preparing and executing an expansion move abroad, to exploit the entirety of the existing knowledge stock. But that knowledge needs to be relevant. In other words, it needs to be useful for the expansion step. Obviously, relevance depends upon the local context of the sources supplying knowledge (Rugman & Verbeke, 1992, 2003, 2004). Hereafter, we assume that knowledge coming from similar, existing operating contexts has a higher relevance than knowledge coming from dissimilar ones (Ambos & Ambos, 2009; Meyer, Mudambi, & Narula, 2011; Schulz, 2001, 2003). As knowledge may come from several sources, in the following we take into account the overall relevance of knowledge from a variety of them. Depending on an MNE's particular portfolio of (foreign) subsidiaries and assuming that the focal unit can make use of the knowledge available inside the MNE, there are

three alternative approaches, MNE subsidiary portfolio, relevant regional cluster, and closest neighbor, each of which (a) considers the overall relevance of knowledge, (b) for a certain expansion step, (c) into a new context. In the following we discuss in particular the potential of the three approaches we propose as alternatives to the home country approach and explain how each differs from the other two in its underlying assumptions.

What is common to the three approaches is the assumption that knowledge gained through subsidiaries can be transferred to and absorbed by the managers involved in preparing and executing an expansion move, for example at a corporate head office or a regional one. Furthermore, the approaches assume that those managers know what knowledge is relevant for a particular expansion step and also how to transfer it to a newly established subsidiary.

MNE subsidiary portfolio

A newly-established foreign subsidiary can learn from the entire MNE portfolio of subsidiaries and benefit from its accumulated knowledge stock. Each subsidiary within the portfolio contributes to the overall knowledge stock of the MNE and by extension the knowledge on which the focal unit entering a new market can rely. Therefore the MNE's knowledge stock can be described as a blend of all the knowledge generated from experiences in all the contexts in which the MNE is active. This approach is described by the upper and lower right quadrants of Figure 2. We assume that the knowledge stock of the entire MNE can be absorbed by the actors responsible for the investment (Gupta & Govindarajan, 2000; Minbaeva et al., 2003).

Newly internationalizing companies may consider *any* prior international experience for the next international expansion move, but it may not know which experience is most relevant. The MNE portfolio approach has the disadvantage of not differentiating between relevant and irrelevant knowledge. Eriksson et al. (1997) assume that a newly-established subsidiary can rely on the entire stock of internationalization knowledge gained by all of the MNE's subsidiaries. Yet it is questionable whether all foreign business and institutional knowledge is applicable in a new context. Would foreign business and institutional knowledge gained in a prior expansion move to China necessarily be relevant for one to Russia?

Relevant (regional) cluster

It is also possible for a newly-established foreign subsidiary to tap into the relevant knowledge of several, but not all, of the other subsidiaries in the MNE portfolio. Any MNE regional experience already gained should be taken into account (Rugman & Verbeke, 2004), as relevant knowledge for a certain expansion step is more likely to come from operations in similar contexts (Barkema & Drogendijk, 2007).⁸ Barkema et al. (1996) provide empirical support for the existence of learning effects from activities in the same or similar cultural block. In addition to learning from the same cultural block or cluster, e.g., as defined by Ronen and Shenkar (1985), regions can be defined along other criteria (cf. Aguilera, Flores, & Vaaler, 2007). The cluster approach is described by parts of the lower right quadrant of Figure 2 and by the upper right quadrant if the relevant cluster in which the new subsidiary is located also includes the home country. This assumes that (1) the managers engaged in preparing and executing an expansion step can identify which cluster is a relevant knowledge source for a foreign investment. Furthermore, the approach assumes that (2) knowledge is transferred to, and can be applied by, a newly-established, or soon to be, subsidiary.

Several studies argue that a regional approach is more suitable to measure the knowledge gap between home and host locations (Clark & Pugh, 2001). Yet these studies do not consider the possibility that a new country entered may actually be more similar to another cluster of countries in the MNE's portfolio than to the respective cluster of this newly entered country. Dow and Larimo (2011) show that a firm's overall knowledge stock should be split between experience in countries similar and dissimilar to the new context, with the former more relevant than the latter.

Closest neighbor

Depending on the extent of an MNE's previous international experiences, only a small part of its entire knowledge stock may in fact be directly relevant to the focal unit. Assuming that the managers engaged in preparing and executing an expansion step are able to identify and access the relevant knowledge, the newly-established unit may rely on that part most relevant to the new context. According to Johanson and Vahlne (1990: 12), "When the firm has considerable experiences from markets with similar conditions, it may be possible to generalize this experience to the specific



market". Contexts that are relevant for a certain international expansion step may be defined as resembling the target country in culture, laws and regulations, economic systems, business practices, and so forth. If the focal unit is able to access the relevant knowledge for the next expansion step, it might see the new context as familiar. This helps facilitate faster knowledge absorption and use. This approach is located either in the upper right quadrant *or* in the lower right quadrant of Figure 2. It is based on the implicit assumption that the knowledge accumulated in the closest neighbor (the country most similar to the target host country) is the most relevant and can most easily be transferred within the firm and applied to activities in the new country.⁹ Firms may therefore rely only on the knowledge of the subsidiary with the highest overall relevance.

This approach is not restricted to a country-level perspective, but can also be applied at the regional level. Here the region in which the subsidiary is to be established and the knowledge of the closest region in the MNE's portfolio of subsidiaries should be considered. The managers engaged in preparing and executing an expansion step will seek knowledge from affiliates located in the region most proximate to the new region. In other words, the focus is on inter-regional proximity, whereas in the relevant (regional) cluster approach the focus is on intra-regional proximity.

The closest neighbor approach can also be meaningfully applied in the case of firms following a transnational strategy in terms of Bartlett and Ghoshal's (2002) framework. These MNEs are a network of organizational units with knowledge dispersed across the entire network. The managers engaged in preparing and executing an expansion step can tap into the knowledge of the portfolio of subsidiaries without going through the corporate or regional head office. The above-mentioned approaches are applications of the added distance concept.¹⁰

CONCLUSIONS

Our starting point was the contention that IB researchers have moved too fast from conceptual work to quantitative empirical studies, and in their haste have not developed the concept of learning and especially experiential learning as fully as it should be, conceptually or empirically. This is confirmed by the 21 most cited internationalization studies, both the purely conceptual ones and

the empirical ones. Although that body of work builds on the theoretical assumptions of experiential learning, explicit discussion of opportunities for benefiting from indirect experiential learning through the MNE's portfolio of subsidiaries is largely absent. The studies we reviewed only consider direct learning and they adopt an empirical black box approach to measuring the benefits of indirect experiential learning through the MNE's portfolio of subsidiaries. We extend theory by describing how changes in MNE portfolios of subsidiaries lead to the accumulation of knowledge stocks which can be instrumental in subsequent expansion steps. Moreover, we show how this argument can be summarized through the concept of added distance.

We reason that a focal unit entering a new context may rely on several internal knowledge sources to close its knowledge gap. Our theoretical contribution is the explicit introduction of the MNE subsidiary portfolio as one such source. We bring together four theory streams: (a) Penrose's (1959) theory of the growth of the firm, that is, the managerial challenge of providing resources for further expansion, (b) Hymer's (1976) liability of foreignness, i.e., the managerial challenge of outsidership when entering a new location unfamiliar to the firm (Johanson & Vahlne, 2009), (c) Rugman and Verbeke's (1992, 2003, 2004) theory of FSAs which can potentially reduce outsidership, and (d) *inter alia*, Birkinshaw's (2002) and other colleagues' development of the theory of knowledge transfer within MNEs [among others, Petersen et al. (2008)]. According to Penrose, management faces challenges when the firm grows. Faster growth leads to more challenges, and more managerial capacity is needed. Internationalization is one form of firm growth. The managerial challenge is to move from outsider to insider (Johanson & Vahlne, 2009). The level of outsidership depends on the distance between the new context and those already represented in the MNE portfolio. How much help the portfolio can potentially provide depends on its stock of transferable and relevant knowledge (Rugman & Verbeke, 1992, 2003, 2004), and whether – and how – such knowledge is actually transferred [see, among others, Birkinshaw (2002), Petersen et al. (2008)].

We recommend further research on the added distance concept. Measures of this concept should reflect the theoretical considerations listed above. Added distance can be measured from a number of perspectives, that of the home country, the MNE

subsidiary portfolio, the relevant (regional) cluster, or the closest neighbor. Applications of the added distance concept so far have reflected Penrose's (1959) theory of the growth of the firm and Johanson and Vahlne's (2009) theory on outsidership, and have relied on strong assumptions regarding Rugman and Verbeke's (1992, 2003, 2004) theory of FSAs and that of knowledge transfer within MNEs. Applications of added distance have not empirically controlled for the transferability and relevance of the FSAs available. Instead, they have proxied them by cultural, administrative, geographic, and economic distance. They have made the strong assumption that knowledge that is potentially transferable and relevant is actually transferred. Future research addressing these shortcomings is needed. The next step is to develop measures of FSA distribution inside a firm, and of their relevance for specific international expansion moves.

Vahlne and Johanson (2017) make a substantial step forward with an updated and augmented model explaining the evolution of the multibusiness enterprise in general. They posit that their thinking is consistent with the resource and capability based views of the firm and they include capabilities and capability-creating processes. A next step ahead is now to integrate other important parts of the MNE nature (i.e., being active in a multitude of host countries with a portfolio of host country subsidiaries) in building a dynamic theory of MNE internationalization.

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NOTES

¹We focus on outsidership in terms of regional scope. The knowledge gap can also be seen from a product scope perspective or in terms of concrete business processes (value chain). Vahlne and Johanson (2017) discuss risk, uncertainty, and partial ignorance in their updated and augmented model. In this article, we use the term uncertainty generically in order to

include risk (outcomes and probabilities are known), conventional uncertainty (outcomes are known, probabilities not) and partial ignorance or nescience (outcomes and probabilities are not known) in management decisions (Ansoff, 1965; Betz, 2006).

²We do not investigate micro processes at the individual level. Vahlne and Johanson (2017) do not either, referring rather to the individual level as the 'mille-micro level'.

³In the extant literature, other sources of learning and knowledge are discussed. Most empirical studies on learning between firms were performed in the settings of strategic alliances and joint ventures (Inkpen, 1996; Kale, Singh, & Perlmutter, 2000; Simonin, 1999, 2004). In the literature on global factories and global value chains, under the heading of 'upgrading' particular attention has been paid to local producers learning from global buyers (Hernández & Pedersen, 2017). At the intersection of economics and international business, foreign knowledge clusters are investigated as locational attraction factors (Alcacér & Chung, 2007). Finally, in the economic geography literature regional knowledge spillovers are examined (Audretsch & Feldman, 1996; Jaffe, 1989; Jaffe, Trajtenberg, & Henderson, 1993; Saxenian, 1994). We, however, are interested primarily in the portfolio of an MNE's subsidiaries as a source of knowledge.

⁴In accordance with Johanson and Vahlne (1977) we focus on the organizational level of knowledge and learning (Kogut & Zander, 1992, 1993).

⁵Performing a key word search on the Web of Science with international* as well as international*ation in the categories title and topic we found 236 papers with at least 100 citations. These papers were investigated more closely by reading their abstracts and if necessary the paper itself to check whether the study (1) really investigates internationalization, (2) is conceptual and/or empirical, (3) investigates internationalization over time, i.e., follows a dynamic approach, and (4) finally, whether the study includes a (experiential) learning perspective. This left us with a list of 24 publications, from which we had to exclude three more (Chetty & Campbell-Hunt, 2004; Fernandez & Nieto, 2005; Westhead, Wright, & Ucbasaran, 2001) as they operationalize internationalization with export activities whereas we are interested in an MNE's portfolio of (foreign) subsidiaries. The * was included to allow for hits including different spellings of internationalization as well as different endings and compound words such as international expansion, internationalization process, etc. Furthermore, in order to not miss any paper



relevant for our purpose, we additionally checked the 50 most cited papers published in relevant journals such as the *Journal of International Business Studies*, *Strategic Management Journal*, and the *Academy of Management Journal*. Furthermore, we performed similar keyword searches on Google Scholar as well as EBSCO to check whether there were additional, highly cited articles we did not identify already through the search on the Web of Science. This did not lead to new articles being added to our list.

⁶Which unit or units serve as a knowledge source depends on the specific corporate mechanisms regarding organizational learning and organizational structure.

⁷An additional complexity is of course that the divestment of an organizational unit need not be associated with the disappearance of all employees

and managerial practices of that unit. This is an area that can be explored in future empirical research.

⁸This refers back to the notion of regional knowledge as discussed above.

⁹The idea of closest neighbor is adapted from Teece, Rumelt, Dosi, and Winter (1994). Application of the integration of the ideas of closest neighbor (Teece et al., 1994) and of distance (Kogut & Singh, 1988) can be found in different versions of added distance (Hutzschenreuter, Kleindienst, & Lange, 2014; Hutzschenreuter & Voll, 2008; Hutzschenreuter et al., 2011).

¹⁰A concrete formula for each of the four approaches – home country, MNE subsidiary portfolio, relevant regional cluster, and closest neighbor – are available from the corresponding author upon request.

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