Internationalization Knowledge

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Internationalization Knowledge: What, Why, Where, and When?

Margaret Fletcher, Simon Harris, and Robert Glenn Richey Jr.

ABSTRACT

The acquisition of relevant knowledge plays a critical role in the internationalization process. Yet a complete understanding of internationalization knowledge (IK) remains largely unexplored in the international marketing literature. The authors develop a framework that distinguishes three categories of IK necessary for internationalizing firms to gain market entry, localize strategies, and organize international enterprise procedures. Employing a longitudinal qualitative analysis of ten internationalizing firms, this study examines (1) why firms need these IK categories, (2) where they source them, and (3) at what stage of international growth they are needed. The authors conclude by addressing implications for practice and recommend that managers should source the specific IK needed before it becomes critical.

Keywords: knowledge management, internalization, market entry, market development, interorganizational strategy

There has been increasing support in the international marketing literature regarding the importance of knowledge-based management in firms' international strategic success (Cui, Griffith, and Cavusgil 2005; Nguyen and Barrett 2006; Roth et al. 2009). Defined as the "procedures and routines for how to learn in local markets," internationalization knowledge (IK) is "experiential knowledge about internationalization in general" (Blomstermo et al. 2004, p. 358). This knowledge about marketing operations builds with the experience of internationalization and can be transferred across markets (Madsen and Servais 1997), and internationalization process research has long recognized its value (Welch and Luo 1988).

Empirical research has affirmed the importance of IK for successful internationalization (Barkema, Bell, and Penning 1996; Delios and Beamish 1999; Eriksson et al. 1997; Erikson, Majkgård, and Sharma 2000; Fletcher 2009; Forsgren 2002; Prashantham and Young 2011; Zahra, Ireland, and Hitt 2000). By improving their assessments of the resources required for success, firms may leverage IK to develop competitive advantage over domestic competitors (Almeida, Song, and Grant 2002; Knight and Liesch 2002; Prashantham and Young 2011; Roth et al. 2009) and achieve superior international market performance (Barkema et al. 1996; Barkema and Vermeulen 1998; Blomstermo et al. 2004; Delios and Beamish 1998).

Extant research has defined IK in conceptual terms and provided a theoretical foundation for how it should influence international performance. Because IK includes "structures and routines ... that can guide the search for experiential knowledge about foreign markets" (Eriksson et al. 1997, p. 353), IK represents the learning capability that firms need for successful entry into successive new markets. International marketing and internationalization process research have suggested areas in which these capabilities may lie, but this research remains fragmented and partial and has not...
been integrated to present a composite framework that defines what IK comprises in practice. Without research as to how specific aspects of IK help firms achieve successful internationalization, firms and managers may remain ineffective, because they may not understand what they need, why they need it, where they can source it, and when each specific type of IK is required. This study addresses these gaps by combining the resource-based view (RBV) of the firm and internationalization marketing logic to explain the “what, why, where, and when” of IK. We identify three key categories of IK that international marketing and internationalization process research have documented: market entry IK, localization IK, and international enterprise IK. We employ a three-year qualitative study to investigate (1) why the different categories of IK are needed for internationalization, (2) where firms source these categories, and (3) when during the different stages of internationalization firms use each IK category.

We structure the rest of the article as follows: First, we discuss the theoretical foundations related to the IK concept, examine research regarding its importance, and use the existing conceptual knowledge to develop a framework encompassing the three categories of IK. We then outline the research methodology used to address the research questions and follow this with a presentation of our findings, highlighting the key and specific contributions of the study. We conclude by noting the study’s limitations, identifying areas for further research, and discussing the managerial implications of our findings.

THEORETICAL FOUNDATIONS

Since Kogut and Zander (1992) presented firms as social communities that create and transfer knowledge, the knowledge-based perspective has made major contributions to international business research. Initially employed to help researchers understand the growth and strategies of multinational enterprises, it has further been used to analyze the strategies and performance of international joint ventures (e.g. Tsang, Nguyen, and Erramilli 2004). Internationalization knowledge represents firm-specific organizational knowledge that requires organizational learning processes in its acquisition and transfer from country to country. The integration of an RBV of knowledge with an organizational learning perspective represents a useful theoretical basis for understanding IK. We use these foundations to understand how IK manifests and how firms deploy it as a capability.

The focus of early internationalization process research centered on the firm’s acquisition of specific market knowledge through the extension of its operations in individual markets (Johanson and Vahlne 1977, 1990). Internationalization process theory also acknowledges firms’ ability to transfer general knowledge from country to country, a process of diffusion that facilitates lateral growth (Johanson and Vahlne 1977, p. 28). Eriksson et al. (1997, p. 345) subsequently refer to the firm’s “way of going international” as its firm-specific “internationalization knowledge.” The RBV of the firm conceptualizes knowledge as a firm resource and argues that the potential to gain competitive advantage depends on the firm’s ability to create strategies that improve efficiency or effectiveness (see Barney 1991a; Peteraf 1993; Wernerfelt 1984). Thus, IK is a valuable resource in the pursuit of an internationalization strategy and represents a strategically essential international competitive asset (Grant 1996).

However, for IK to be a strategic resource, Barney’s (1991b) encapsulation of the RBV states that, for competing firms, it must also be rare (so few can possess it), imperfectly imitable, and nonsubstitutable. Capabilities that require resources to be combined in particular ways are particularly difficult to imitate (Dyer and Singh 1998). If firms are to acquire, deploy, and employ IK, they must integrate it with their existing knowledge (Grant 1996) and embed it within their organizations (Barney, Wright, and Ketchin 2001). Internationalization knowledge only becomes valuable when firms translate the learning they gain from their environment into responses to emerging international opportunities (Cui, Griffith, and Cavusgil 2005). This is a path-dependent learning sequence that, when developed into a bundle of unique (or at least distinctive) resources embedded in firm-specific routines, increases rarity and restricts imitability and substitutability (Collis 1994).

Sustainable competitive advantage, however, requires capability of continual knowledge acquisition, assimilation, and renewal (Amit and Schoemaker 1993; Collis 1994; Prahalad and Hamel 1990). The managerial capability to acquire and develop knowledge can be a source of sustainable competitive advantage (Dierickx and Cool 1989; Teece, Pisano, and Shuen 1997). As Barney (1991b, p. 98) notes,

Closely knit, highly experienced management teams for a particular set of competitors may be rare and, because they are socially complex, may be imperfectly
imitable. If this is true, an embedded information-processing system may be a source of sustained competitive advantage, even if a close substitute for such a processing system (a close knit, highly experienced top management team) exists.

These capabilities can therefore represent sources of sustainable competitive advantage for firms competing in international markets (Grant 1996; Teece, Pisano, and Shuen 1997). They are “higher-order” organizational capabilities that enable international firms to change their business models and strategies, which is a necessary tactic if they are to use IK to improve performance sustainably (Autoio, Sapienza, and Almeida 2000; Sapienza et al. 2006; Winter 2003).

INTERNATIONALIZATION KNOWLEDGE

In this section, we define the distinctions made in international marketing and internationalization process research among market entry, localization, and international enterprise IK categories. We examine the extent to which each of these categories can help internationalizing firms achieve sustainable competitiveness.

Market Entry IK

Firms need to know how countries, institutions, and firms operate and differ internationally if they are to succeed in new territories. Internationalization process research has recognized market entry IK as the essential knowledge required for entering new international markets (Madsen and Servais 1997), including the appropriate mode of entry (Fletcher 2009; Prashantham and Young 2011). To source market knowledge and information in unfamiliar territories, firms must know how to undertake a marketing-oriented information search; they must know the kind of information they are seeking, where they can source it, and how they can find it. Eriksson et al. (1997, p. 358) note that “internationalization experiential knowledge is thus procedures and routines for how to learn in local markets, and it is the antecedent to market-specific experiential knowledge.”

It is essential that firms understand the differences between countries (Chetty, Eriksson, and Lindberg 2006). Cavusgil (1988, p. 105) presents “cross-cultural knowledge” as a core layer of knowledge in international business, comprising an understanding of cultural differences, ethical values, language, negotiation styles, decision-making styles, and organizational features in different countries.

Market entry IK is a valuable resource for reducing the costs firms face in making their initial entry into a new nondomestic market (Knight and Liesch 2002). Furthermore, the difficulty of acquisition and integration of market entry IK makes it a strategic resource as well. To develop and execute market entry strategies, firms must evaluate, integrate, and systemize external country-specific market expertise into internal firm-specific (internationalization) knowledge (Eriksson et al. 1997; Prashantham and Young 2011). Firms often need networks to acquire and evaluate market-specific knowledge and leverage it through the development of a marketing strategy. These network relationships in the new local territory are an essential resource for small firms and require an understanding of how to build and use such relationships (Madhok 1996). As Griffith, Zeybek, and O'Brien (2001, p. 13) note, “Successful ventures necessitate the development of strong relationships and partner knowledge transfers. Knowledge transfer is an important element in the process of relationship development.” This know-how helps firms assess the risks of partner opportunism when exploring, forming, and exploiting relationships in new territories and to evaluate potential strategic partners and distributors (Prashantham and Young 2011; Tokman et al. 2007). In this way, market entry IK enables firms to collaborate more readily and reliably with others rather than internalize operations for the facilitation of market entry (Madhok 1996).

Localization IK

Localization IK pertains to the sourcing of knowledge about environments, capabilities, and viable strategies such that a strategy developed for a territory will reflect the local market conditions (Cui, Griffith, and Cavusgil 2005). Localization IK therefore includes knowledge of the capabilities required for the firm to compete in the foreign market (Eriksson et al. 1997). As Cui, Griffith, and Cavusgil (2005, p. 34) conclude,

Knowledge—most notably market knowledge, which is directly related to market information about customers, competitors, suppliers, distributors, and so forth, and internal knowledge, such as technology or specialized skills of operation—is a strategically important resource for a firm, and it serves as a basic source of competitive advantage.

Managers must know how to evaluate localization IK to determine and assess international business opportunities and make strategically viable internationalization decisions (Cui, Griffith, and Cavusgil 2005).
Whereas market entry IK informs firms how to establish initial market positions, localization IK helps firms develop strategies that will yield a sustainable competitive position in new territories (Cui, Griffith, and Cavusgil 2005; Prashantham and Young 2011). Therefore, internationalizing firms need localization IK if they are to create marketing strategies that are appropriate for the new territories (Griffith, Zeybek, and O’Brien 2001) and that later align the firm across multiple international markets through segmentation and clustering (Astley and Van de Ven 1983; Forsgren 2002). As firms internationalize, therefore, localization IK becomes a valuable resource for ensuring that their internationalization is strategically viable.

This IK regarding the development, implementation, and operationalization of strategies in new territories is difficult to transfer or imitate because it comes from the systematization of accrued knowledge from other territories (Prashanthan and Young 2011; Roth et al. 2009). When foreign subsidiaries implement localization IK, they may “employ this theory in use from a different market location to develop and implement marketing strategy” (Roth et al. 2009, p. 4), sometimes resulting in an imitative, isomorphic marketing strategy (DiMaggio and Powell 1983). This tendency encourages firms to select strategies that have previously worked in other territories. Such a process reflects knowledge-firm specificity and deep integration across the firm (Blomstermo et al. 2004; Padmanabhan and Cho 1999). Localization IK is a strategic resource within the RBV of the firm.

**International Enterprise IK**

International enterprise IK enables firms to manage the internal organization of their enterprises effectively across multiple international territories. It may help them understand how to control divergent partner behaviors, manage spatially distant internal relationships, and ensure ongoing and appropriate levels of knowledge transmission. Cavusgil (1998) emphasizes cross-border transaction knowledge, which includes product adaptation for different territories, international logistics, the working of currency markets, and transnational legal aspects. As firms add territories and scale, operating effectively requires greater attention to management and organization; for example, custom operations and foreign exchange management practices become more important (Prashanthan and Young 2011).

International enterprise IK comes from previous or learned experience, which can either originate directly from within the firm or be acquired externally (Forsgren 2002). This knowledge becomes useful when managers transfer it across the firm internationally and leverage it globally. Before actual internal transmission can take place, transferability is required. Firms must convert tacit experiential knowledge about firm practices into objective explicit knowledge that they can share internationally between both established and new territories (Basly 2007; Karlsen et al. 2003). This transformation requires appropriate internal procedures (Fletcher and Prashantham 2011), meaning that valuable international enterprise IK is largely idiosyncratic procedural know-how within the international firm (Hadley and Wilson 2003; Wiklund and Shepherd 2003). It is therefore not only a valuable resource—because it is rare and difficult to replicate—but also a strategic source of competitive advantage (Lee et al. 2008).

To make this knowledge useful through implementation, the firm must coordinate it with other resources by absorbing and embedding it within both existing and new structures and procedures (Blomstermo, Eriksson, and Sharma 2004; Eriksson et al. 1997; Johanson and Vahlne 2009; Lee et al. 2008). This is a challenging task and may explain why many firms fail at far-reaching internationalization. For example, it is insufficient merely to “know” about credit control procedures to avoid overexposure to systematic credit risk on an international scale. To achieve effectiveness, procedures must be developed, embedded within reporting systems, and understood and followed by both accounting and commercial personnel (Kogut and Zander 1996). The firm’s ability to do so ultimately depends on the strength of the sources of this enterprise-wide knowledge and on the strength and extent of relationships within the firm that enable this knowledge to be shared between people and units in different territories (Burt 1997; Lee et al. 2008; Tsang, Nguyen, and Erramilli 2004; Uzzi 1997).

The extant international marketing and internationalization process research outlined previously guides us in defining three well-discriminated categories of IK, summarized in Figure 1. Market entry IK focuses on how to develop and implement market entry in new territories in general—for example, how to gain the market-specific market entry knowledge in each territory. Localization IK focuses on how to be competitively successful during market entry by matching the firm’s capabilities to the requirements of and opportunities in the local territory through appropriate strategies. International enterprise IK focuses on how to turn a collection of international market locations into an inter-
national enterprise that can achieve competitive performance through effective structures and management. International enterprise IK is a higher-order, complex relational resource. The know-how it requires for effective implementation gives it many of the qualities of a dynamic capability.

Conceptual development and empirical research over the past quarter-century has focused on the definition of IK; the focus of this study is the role of the different categories of IK as firms internationalize. Therefore, we examine (1) why the different types of IK are needed for internationalization, (2) where managers of internationalizing firms source these categories of IK, and (3) when firms use each category during the different stages of internationalization.

RESEARCH METHODS

We used a process-oriented research approach (Pettigrew 1992; Van de Ven 1992; Van de Ven and Engleman 2004) to investigate the role of different categories of IK as firms internationalize. Our “why, where, and when” questions demanded that we access fine-grained data from relevant firms and people over a period of internationalization, and following the suggestions of Pettigrew (1990) and Yin (2009), we adopted a qualitative longitudinal multiple case study method. We set out to examine several firms long enough to achieve sufficient data saturation that would enable us to draw theoretical generalizations (Eisenhardt 1989; Eisenhardt and Graebner 2007; Yin 2009) but also aimed to reflect each case context (Welch et al. 2011).

Our methodological approach to discovery combined deductive and inductive reasoning (Glaser and Strauss 1967; Strauss and Corbin 1994). As we noted previously, prior internationalization process and international marketing research has presented a foundation of theory within three categories of IK. We used an inductive approach to explain why, where, and when firms needed the categories that was not driven by the a priori expectations that framed previous research (Harris 2000; Suddaby 2006). We drew from international marketing literature to refine our IK categories (Kaufmann and Denk 2011), used within-case analysis to enable sensitivity to the firm’s context (e.g., its patterns, stage of internationalization, or specific industry), and employed cross-case methods to identify themes and patterns (Miles and Huberman 1994; Yin 2009).

Case Selection and Stages of Internationalization

The unit of analysis was each individual firm (Yin 2009). We used purposeful selection to choose a relevant sample of firms that were in the process of internationalizing and acquiring knowledge (Eisenhardt 1989; Miles and Huberman 1994; Yin 2009). We needed to study firms with internationalization intentions and the people (chief executive officers [CEOs] and other directors) who were driving them. We secured access to firms that were engaged in an internationalization program. The firms joined this program to help them develop an
internationalization strategy. We initially selected 15 participating firms, deselecting 2 when they subsequently abandoned their internationalization strategy, and 3 further firms became unavailable for the study when they withdrew from the program. We secured three-year access with ten case study firms suitable for the study, a number that conforms to sample size recommendations for multiple case study design (Eisenhardt 1989; Miles and Huberman 1994). We altered firm names to single-letter descriptors to protect their confidentiality (see Hutchinson et al. 2007).

The firms in our study were at various stages of internationalization. Following Coviello (2006), to facilitate the time-based analysis of IK acquisition, we used Kazanjian’s (1988) empirically derived growth stage framework to identify the IK needs of firms at different stages:

- Stage I: Conception and development
- Stage II: Commercialization
- Stage III: Growth
- Stage IV: Stability and profitability

Coviello (2006, p. 718) notes that the model is “relevant to the analysis of entrepreneurial evolution, [and it] is more useful for identifying the boundaries of entrepreneurial process than are specific time frames.” We considered this model appropriate for our study despite its being developed for technology-based firms, because it matched the empirical observations of the firms in the study. Stage I of the Kazanjian (1988) framework was not relevant to the respondent firms, because all were beyond this preliminary stage. Figure 2 presents the case firms’ stages of international development diagrammatically.

Firm C was at Stage II, commercialization, but it remained within this stage because it was not successful at developing sales or achieving initial market entry. Firms A and B developed and commercialized their products and moved to Stage III to focus on international sales growth and organizational development. Five of the firms were in Stage III at the beginning of the study. Firm I remained within this stage because it failed to develop successful international growth. Four firms—D, G, H, and J—progressed from Stage III to Stage IV by achieving international sales growth. Firms D and G were growing

Figure 2. The Stages of International Development of the Case Firms
both at home and overseas, whereas H and J had been internationally focused since their inception. Firms E and F were in Stage IV, involved in the organization of international operations to achieve stability and profitability.

In the Appendix, we present the firms and their total and international sales levels and export ratios throughout the research period. Firms D, F, and G were low-technology-intensive manufacturing firms. Firms A, C, and E were medium-technology-intensive firms, using new technologies to develop products and processes. Firms B, E, H, and J were technology-intensive firms.

**Data Collection and Analysis**

Data collection and analysis were interrelated processes that involved multiple phases. We used methods for establishing trustworthiness and rigor in qualitative research recommended by Lincoln and Guba (1985), Kaufmann and Denk (2011), and Yin (2009) in the data collection and analysis. We prepared a research case study protocol (see Table 1) to guide the research design and data collection process and increase reliability (Yin 2009). Drawing from Lincoln and Guba (1985) and Kaufmann and Denk (2011), data collection involved multiple cases with multiple sources of information and CEO interviews for each case. We collected archival data for each firm, which included company profiles prepared by managers of the internationalization program, independent consultants’ reports, and the firms’ action plans. We recorded and transcribed face-to-face interviews with the internationalization program managers and carried out telephone interviews with regional support agency managers. Notes and minutes collected

<table>
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<tr>
<th>Step</th>
<th>Task</th>
<th>Detail</th>
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<tr>
<td><strong>First Year of Data Gathering and Analysis</strong></td>
<td>1 Archival data collection and analysis</td>
<td>Governmental, published and private data archives searched for data triangulation</td>
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<td></td>
<td>2 First year of program manager interviews and meetings</td>
<td>Initial interviews with 6 program and 12 government regional managers; monthly meetings with program managers to probe and triangulate the issues highlighted by the CEO and how they were to be resolved</td>
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<td>3 First round of CEO interviews</td>
<td>Ten 60-minute semistructured interviews with CEOs at firm headquarters</td>
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<td></td>
<td>4 Inductive data coding and analysis</td>
<td>Inductive coding of data from all sources using NVivo data software</td>
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<td><strong>Second Year of Data Gathering</strong></td>
<td>5 Second round of CEO interviews</td>
<td>Ten 60-minute semistructured interviews with CEOs (as in Step 3)</td>
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<td></td>
<td>6 Second-year program manager interviews</td>
<td>Monthly meetings with program managers</td>
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<td></td>
<td>7 Iterative data coding and analysis</td>
<td>Inductive coding of data from all sources using NVivo data software (as in Step 4)</td>
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<td><strong>Third Year of Data Gathering</strong></td>
<td>8 Third round of CEO interviews</td>
<td>Ten 60-minute semistructured interviews with CEOs (as in Step 3)</td>
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<td>9 Third-year program manager interviews</td>
<td>Quarterly meetings with government program managers</td>
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<td>10 Iterative code development</td>
<td>Iterative coding of data from all sources</td>
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<td><strong>Qualitative Data Analysis</strong></td>
<td>11 Theoretical code development</td>
<td>Development of coding categories and constructs from the international marketing and internationalization process literatures</td>
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<td></td>
<td>12 Integrative coding</td>
<td>Iterative process of coding against inductive and theoretical codes to identify core themes</td>
</tr>
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<td></td>
<td>13 Overall analysis and reevaluation</td>
<td>Cross-case analysis to identify most important themes and sensitivity to context</td>
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from monthly program meetings and access to company media reports provided continual data on the companies' activities that we used to triangulate and validate the CEO interviews. We created a database with an audit trail of all documentation and designed a semi-structured interview schedule to explore and unravel the issues from the interviewees in a nondirective and unbiased way (Harris 2000; Yin 2009).

Interviews (recorded and transcribed) were conducted over a three-year period with the CEOs of each of the case firms as they implemented their internationalization strategy. We selected the CEOs as key informants because they were the decision makers responsible for the firm's internationalization. In the first round of interviews, data were collected on the firms' past and present internationalization activities, plans and strategies, competitive positions, external and internal barriers, and facilitating factors. We used NVivo data analysis software to perform inductive coding, which enabled us to develop broad categories (Sinkovics, Penz, and Ghauri 2008), which allowed us to set the context of the issues firms were facing as they internationalized.

During the second year, we again held interviews with those involved in the internationalization process. Two firms had by then appointed new directors in roles involving their firms' internationalization. Acknowledging the emergent nature of the case study sampling process (Fletcher and Plakoyiannaki 2011; Piekkari, Welch, and Paavilainen 2009), we interviewed them as well to enhance validity. We identified for analysis issues and problems that arose as firms implemented their internationalization strategy. Notes and minutes from monthly meetings with the program managers provided a further separate source for data triangulation.

The third round of CEO interviews focused on organizational learning and knowledge acquisition. Referring to the analyses from years 1 and 2, respondents identified and confirmed the main issues and problems that they faced as they internationalized. The interviews probed into the new knowledge firms needed and where they acquired such knowledge. For triangulation, we collected data from the (now quarterly) program manager meetings, published sources, and archival data from the government agency records. Thus, our longitudinal multicase method supported internal validity with a combination of real-time and retrospective data collection, pattern matching, and contextualization (Leonard-Barton 1990; Welch et al. 2011; Yin 2009).

We used coding driven by the research questions to analyze the CEO interviews, the issues the firms addressed, the new knowledge they acquired, and their specific sources of IK (Eisenhardt 1989; Kaufmann and Denk 2011). We labeled the phenomena, grouped them into subcategories, and classified them into the higher-level categories of IK the firms acquired, their sources, and their timing within the stages of development. Following Miles and Huberman (1994), we repeated an iterative coding process each year with data from all sources to enable developmental identification of core themes and patterns during the research process and provide a more complete explanation and understanding of the categories. We then generalized these themes and patterns through cross-case analysis within the IK categories that had been developed from international marketing and internationalization process research (Roth et al. 2009).

**FINDINGS**

We next present the findings from our data and discuss specific evidence from the case firms relative to why firms need the different categories of IK. We expand on these discoveries in the "Discussion" section.

**Why Firms Need IK**

*Market Entry IK.* Table 2 presents the specific kinds of market entry IK and why each is needed. Unlike market knowledge, market entry IK is firm rather than market specific. It pertains to the different ways that a firm can achieve market entry and an assessment of how these ways may suit the firm's particular situation. Market entry IK is the knowledge needed for a firm to assess partners and to construct appropriate agreements and contracts with them.

Firms A and B grew substantially over the research period, and both required knowledge of how to achieve market entry overseas: Firm B in the United States and Firm A in the Middle East and Asia. Both firms needed to form new relationships with partners in new territories. Having gained the IK to identify the appropriate market entry approach, Firms A and B made agreements with customers and entered their selected markets. As a technology-based business, Firm B worried about the loss of intellectual property to potential overseas manufacturing partners. Market entry IK also included legal concerns with the business partnerships and international product liability for Firm B. To develop a high-tech clothing product for commercialization in a low-
Table 2. Market Entry IK Needs in the Case Firms

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<th>Specific Market Entry IK Needed</th>
<th>Why It Was Necessary</th>
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<tr>
<td>Ways of achieving market entry in new overseas markets</td>
<td>• A new activity within the university sector required knowledge about how to develop strategic partnerships in the Middle East and Asian markets. (Firm A).</td>
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<td></td>
<td>• Having successfully entered the U.S. market by FDI, the firm was extending business operations in other territories using new market entry methods. (Firm G)</td>
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<td></td>
<td>• Having successfully entered the U.S. market by FDI, the firm was seeking market entries for a new product in Europe but with a new, lower-cost market entry method. (Firm H)</td>
</tr>
<tr>
<td>How to find and build new relationships and methods of working with overseas partners</td>
<td>• The firm needed to enter a large, established market, initially the United States and then elsewhere. (Firm B)</td>
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<td>• Long-term growth required trusted and reliable supplier and distributor partnerships in different territories. (Firm C)</td>
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<tr>
<td>Legal requirements for operating new markets</td>
<td>• The firm needed to know legal aspects of partnership with a customer in the United States and gain protection against product liability. (Firm B)</td>
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<td></td>
<td>• There was a potential for loss of intellectual capital with large global and Asian competitors. (Firm C)</td>
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margin sector, Firm C needed to form technology and market entry partnerships overseas, for which it needed IK. It found two technology partners but did not establish strong distributor partnerships, which crippled its commercialization.

Firms G and H were already internationally established at the beginning of the study but continued to expand both in their original territories and by entering new territories. Both were entering the United States through foreign direct investment (FDI), and both had found that this required so much time and resources that their speed of internationalization had slowed. Firm H sought lower-cost ways to expand into new markets so that it could maintain growth without impairing profitability and cash flow.

Overall, we find that the firms required market entry IK when they needed to learn a mode of entry that they had not used before, because they were entering a market that necessitated a new way of working. Because the start-up firms had not undertaken market entry before, all needed market entry IK.

Localization IK. Table 3 presents an overview of the localization IK needs of the case firms. Three subcategories emerged from the data regarding the development and tailoring of business models and the organization of supply chains. To compete internationally, Firm A needed to acquire IK pertaining to how to develop a new international strategy to enable it to compete in the overseas markets. Firm A had initially recruited smaller overseas partners and found it difficult to manage a large number of small partners:

Our international business is changing in that we are moving away from a large number of smaller centers to a small number of large centers. Most of our costs are ... center-based—the cost of acquisition, of finding somebody, getting the approval—the time-cost of getting approval is the same, doesn't matter if it is a thousand students or ten students, so what we are doing is focusing on a small number of larger partners. These larger partners also take a wide range of programs ... so to deliver we need a wide range of academic partners; that is the reason for recruiting [domestic] partners. (Firm A)

In changing its strategy to attract large customers to become strategic partners, Firm A needed to identify and recruit them and develop a governance structure that would be appropriate to a new partnership arrangement. It sought local partner knowledge for a
Table 3. Localization IK Needs in the Case Firms

<table>
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<tr>
<th>Specific Localization IK Needed</th>
<th>Why It Was Necessary</th>
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<tbody>
<tr>
<td>How to develop an appropriate model to be able to compete internationally</td>
<td>• The firm had no previous knowledge about how it should structure and develop a new business model. (Firm A)</td>
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<td>• The firm was creating a global brand, which required a new type of web presence. (Firm G)</td>
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<td></td>
<td>• The firm’s new business model needed to supply technology rather than customized products. (Firm I)</td>
</tr>
<tr>
<td>How to develop an appropriate model tailored to specific overseas market conditions</td>
<td>• The firm’s new innovative business model involved leasing eye scanning equipment to customers in the United States and providing customer support service. (Firm H)</td>
</tr>
<tr>
<td>Organization of the international supply chain</td>
<td>• The firm experienced supply chain management complexity with globalization of outward distribution systems. (Firm G)</td>
</tr>
<tr>
<td></td>
<td>• The firm reengineered its organization worldwide to supply and/or license components to original equipment manufacturers rather than full system supply. (Firm I)</td>
</tr>
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</table>

new product, a new service, and a new innovative strategy to compete. The CEO of Firm I made the following statement:

We came to realize that when we were doing full system development, it was inherently more project based and it wasn’t repeatable revenue. By working at the component level, it would do a couple of things for us. It would allow us to actually have more of a product development strategy than this project type scenario, so in effect we set out to become a supplier to our competitors.... We have been defining products in both hardware and software which we could actually sell either direct to existing customers or ... to our competitors, and that would allow us to reduce the amount of cash churning through the business but also allow us to increase the gross margins substantially. (Firm I)

Firm I's domestic strategy was not profitable in a market the size and scale of the United States, so its main concern was to find ways of revising its business model and developing strategies that would enable it to address local dynamics in international markets. Firm I’s failure to do so prevented further internationalization.

Firm G had developed a business model for a smaller operation within a restricted range of markets. This model would not work because the business increased in size and international scale. The firm needed to change how it interacted with its retail customers and fundamentally modify the scale, operations, and international linkages within its supply chain. Firm G had to restructure its wholesale and retail operations, reorganize online sales, and provide sales support within the overseas markets locally. To handle this, G created new teams, recruited new employees (including language graduates), and used consultants to source the new knowledge:

We have improved shop fronts and are investigating the franchise model; they are related. We have a franchise project team ... working on a model. We used external franchise consultants to push it forward. We needed a better system to give franchisees [a] better platform to work from, [and to do this, we] engaged a consultant. We now have a good franchise model, good shop design, and a good product. We need a more specialist IT platform, and we have set up a team. We need to change all the current structures; it will be a high price. We need to integrate the old wholesale model and new retail developments. We need the different parts of the company to work and talk to each other. (Firm G)

We therefore find that the firms needed localization IK because they had to know how to adapt their business
models, practices, and operational structures for the new territories in which they were working. This IK was required for them to reconfigure their strategies and to meet the requirements of particular territories.

**International Enterprise IK.** Table 4 summarizes the case firms' international enterprise IK. Four categories of international enterprise IK emerged from the data: knowledge for new management structures, information systems, human resources procedures, and project management processes. To help support the implementation of its new international strategy and business model of selling technology and licensing manufacturing, Firm I needed to develop control systems to support its planned international growth. In consultation with advisors, it implemented new business analysis tools. It restructured its board of directors and recruited a new chairman to help deliver the new strategy.

We did make one other internal structural change which is consistent with the strategy, where the development engineers' reporting structure has been changed so that they now report in to me as the operations person, and the chief technical officer is more in business development without the development engineers reporting directly to him. The reason for that was to try and get more emphases on implementation in order to bring about the sort of full change into the new strategy as soon as possible. (Firm I)

At this stage, Firm I's main concern was to establish the new business model and maximize profits in existing

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<thead>
<tr>
<th>Specific International Enterprise IK Needed</th>
<th>Why It Was Necessary</th>
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<tbody>
<tr>
<td>Management structures</td>
<td>• A shift to manufacture and sales worldwide rather than exporting required a new organizational structure. (Firm D)</td>
</tr>
<tr>
<td>Management information and analytical systems</td>
<td>• Expansion and better financial performance in overseas territories required improved international management capabilities. (Firm E)</td>
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<tr>
<td></td>
<td>• Expansion required the development of regional service hubs with local management structures. (Firm F)</td>
</tr>
<tr>
<td></td>
<td>• Deepening of operations in overseas territories required new subsidiary management structures. (Firm G)</td>
</tr>
<tr>
<td></td>
<td>• New operations globally rather than in selected markets required an effective international structure for management and control. (Firm H)</td>
</tr>
<tr>
<td></td>
<td>• The firm required reorganized reporting structures to support new business model. (Firm I)</td>
</tr>
<tr>
<td></td>
<td>• New products required structures to support direct sale to original equipment manufacturers rather than the use of distributors. (Firm J)</td>
</tr>
<tr>
<td></td>
<td>• Better sales performance in overseas territories required improved monitoring by senior management. (Firm E)</td>
</tr>
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<td></td>
<td>• Regional service hubs needed information from territories and headquarters needed monitoring information on the hubs. (Firm F)</td>
</tr>
<tr>
<td></td>
<td>• Operation in many more territories expanded the information needed for monitoring. (Firm H)</td>
</tr>
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<td></td>
<td>• New business activities and model required a different approach to monitoring, control, and management. (Firm I)</td>
</tr>
<tr>
<td>Human resources management and recruitment</td>
<td>• The firm to employ staff in different sales and technology roles. (Firm J)</td>
</tr>
<tr>
<td>Systems/approaches for international management</td>
<td>• The development and launch of new products and services needed to be managed on an international scale. (Firm F)</td>
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markets before accessing new markets. However, Firm I did not achieve sales growth with its new business model, and it subsequently reduced staff; it was ultimately acquired by another firm after the study concluded.

Firms D, G, H, and J all noted that they needed knowledge that would help them manage their operations in this period of international growth as they progressed to Stage IV (Table 4). This reflected a common need to find ways of coping with the growth they were achieving and to manage their organization in an efficient and controlled way. Firms D, G, and J needed new ways to structure their organizations to improve efficiency and effectiveness. Their previous way of working had developed over time, and the firms did not have the experience and background to appreciate alternative methods of organizing themselves.

Firm D employed consultants to develop a new management structure for the firm, with a new senior management team for its U.S. subsidiary in a structure that could be replicated in other countries. Firm G created a new structure that had to fit and retain an informal ethos and style that it considered essential for innovation, but with a more organized approach that would enable better control as it expanded internationally. With the help of consultants, it created two levels of management: senior and function managers that supported project teams.

We are reasonably self-contained ... so that our U.S. operations now have our management team there and they have local operations managers and things like that, and so a lot of the administration comes centrally from here [the United Kingdom], and senior management is based here, but it is spread around. But we are still small enough that we operate as one company pretty much as opposed to being split. (Firm D)

Firm J had developed a new business model for developing new products and for making direct sales to original equipment manufacturers, but it needed new internal procedures to support that model. Firm J also needed to restructure its operations in different territories, which were operating as independent business units. Facing problems managing a growing workforce, it needed specialized human resource management knowledge about how to review staffing structures and training requirements.

The expansion has really put a strain on our recruitment ability and [our ability] to train staff. We are having consultants look at our pay reward systems to make sure we are competitive. A direct competitor has come into the market place [that] we believe ... is a direct threat to our staff and us. The consultants are looking at job descriptions to see if they [are] accurate, they are looking at a grading system and they are doing ... both internal and external salary comparison.

We made changes to our structure to accommodate development to make that process more efficient, and I think we have had some successes there, but we have still got a long way to make further improvements. We expanded the R&D group quickly and we did suffer initially because we only had two or three people with key skills and we spread them too thinly, and it has taken us awhile to get other people up to speed and up to the skill level to work on more projects. We underestimated the time and effort that would require. (Firm J)

Firm H’s new business model and international strategy led to restructuring and reorganization of its overseas sales operations.

We have had such a dramatic growth over the last three or four years, and the change of structure in the beginning of the year ... was not only a change of structure, it was also a change of profile of people.... Canada was growing both in terms of customers and structure, and the U.S. has grown, and now our ambition is just to try to make our existing resources (i.e., personnel) more productive and through the reorganization to make sure that we have the right structure in place and that our staff are productive. (Firm H)

Firm H then found that its head office reporting systems were inadequate when the overseas operations became substantive businesses: the information provided and the way it was analyzed did not enable sufficient control. The firm developed new reporting procedures and systems from the previous experience of the CEO and the new management team.

For Firm F, a substantial investment in regional hubs under a new global strategy led to the need for rigorous monitoring and active international management. The CEO and senior management team needed new formal management information systems to inform and facilitate quick, effective decision making. The firm aimed to find new procedures that would fit the physical nature of their business.
We now have offices in Houston in the States, Cairo covering the Middle East and North Africa, Singapore covering Asia/Pacific and Nigeria. Our financial performance has not been as good as we would have liked... There is no point in going gung-ho in a business development sales and marketing sense if we don’t have the project management resources behind that to follow through and build things locally if we do win business in these markets. (Firm F)

Firm F also needed to learn how to manage overseas projects. It created new proposal teams and relocated staff to the head office.

After a period of high growth, Firm E was experiencing slower sales than planned, and it was underperforming in its international marketing efforts. It needed a new management structure and international management capabilities, including systems to monitor and control sales, and new marketing approaches to improve its overseas sales force and distribution network performance:

We weren’t performing as well on sales as we should. We started a sales consultancy and training program for the sales team. It looked at everything from how to sell, how to plan their sales activities, what they focus on, how they spend their time, and how they implement launch strategies. We needed to develop the people and to develop processes internally that made sure that they were doing the right thing and [were] monitored and planning properly. (Firm E)

Although Firms E and F knew how to achieve international presence and develop an effective international business model, they did not necessarily know how to manage their firms in such a way that the operationalization of that model was successful. They needed considerable organizational restructuring to improve their efficiency globally to compete with other international and domestic firms.

We therefore find that the firms needed international enterprise IK because their international growth meant that they needed to work as a coherent international business with supportive structures and systems that manage people, subsidiary organizations, and information (through appropriate marketing information and reporting systems) and to establish effective international enterprise processes. All these capabilities are associated with the firms’ increased international scope.

Where Firms Source IK

Table 5 provides an overview of how the case firm managers sourced each of the IK categories. The primary sources of this knowledge were the direct experiences of managers and internal experts and the indirect experiences of external advisors and consultants. For international enterprise IK, firms also used internal information and recruiting experts.

Market Entry IK. Firm C consulted a government advisor in the overseas territories to learn how to find and develop overseas partnerships with manufacturers in China and Taiwan. Although Firm C’s lead entrepreneur had previously owned a domestic garment manufacturing firm, he did not have experience manufacturing overseas and used a consultant and books to learn about

<table>
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<th>Table 5. IK Sources in the Case Firms</th>
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<tbody>
<tr>
<td>Source</td>
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<tr>
<td></td>
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<tr>
<td>Internal experts/direct experience</td>
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<td></td>
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<tr>
<td>Internal creation of information systems</td>
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<tr>
<td></td>
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<tr>
<td>External advisors/consultants</td>
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<td></td>
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<td>External senior recruitment/hires</td>
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</table>
Asian culture. He gained vital experience by visiting with manufacturing partners.

The firm entered discussions with intermediaries (garment importers) to sell the products to large retailers. It had to develop much closer relationships with importers than it had expected and provide them with information.

The garment importers ... say to us, “It is fantastic—it gives value to the garment, but I don’t know how to sell it, can you tell me?”... I have been spending the last three weeks preparing his pitch for his customer and I didn’t expect to have to do that. It is almost like marketing consultancy. So hopefully now, in the next ten days, we are going to go back and say, okay, you have got 15 customers. (Firm C)

The process of acquiring this knowledge experientially through visits to partners was important for Firms A and B. Firm B did not have experience working in the U.S. market. It took several attempts for the firm to find the right partner in the aviation sector, but it did so through visits to the marketplace and government advisors.

When we looked at the channel to market within the U.S., what we recognized was that [we] weren’t going to have an impact with the Federal Aviation Authority or the national transportation system, and we needed to have a sizeable American partner—that is where [large multinational corporation, X] came along, because they are very large within the American scene. We have recognized that we have to spend a reasonable amount of time in managing X’s efforts within the U.S., and I don’t think this is particularly a U.S. topic. It is a recognition that a big organization like X has got lots of things to do and you have got to be making sure that you are on their agenda of things to do and that can be a time-consuming process, so we have been involved in the States this year evangelizing the product for X’s sales staff, training them ... in terms of the key features. Over the past year, a surprisingly large amount of time has been spent on the legal aspects of the partnership. (Firm B)

Firm A identified large regional education providers to develop strategic alliances. Both Firms A and B developed the product closely with customers to meet their specific needs.

Firm G created internal project teams, used external franchising consultants, and worked with the firm's lawyers to create a new international franchising model for market entry into Europe. Firm H recruited a European director to manage this expansion from the U.K. head office to Europe. This replaced the FDI strategy in the United States and reduced the overseas administration that had been required to support this, leading to a new strategy for market entry in Europe:

[In Germany], we started from scratch in a very unorthodox way in the sense that we didn’t recruit a general manager. We recruited a salesperson first, and we didn’t want to have the structure before we can prove that the market exists and ... is open to us, so we didn’t spend a lot of money. It was a mixture of not having a lot of money to spend and also the notion that recruiting the general manager is not probably the best thing to do. We are probably going to do the same in every other European country; it is going to be the process we will follow in opening [in] Spain and France and so on. (Firm H)

Localization IK. In our study, firms acquired localization IK from internal experience and from the experience of consultants and government advisors in the United Kingdom and overseas. Firm A combined the experience of government advisors with its own experience and knowledge in the sector to develop a commercially viable way to deliver the product and associated service overseas. Firm G created project teams with consultants to establish a new web presence and supply chain/distribution to support international operations. This knowledge had to be deeply embedded in the firms' local operations in a process of internalization and invariably required new staff to be recruited to these operations to be effective. Gradually over time, these new staff members were able to contribute to processes developing localization strategies in other territories as well. Firm H relied on the experience of its CEO to create new business models, which involved leasing equipment to support its U.S. operations and brainstorming different ways of managing its subcontractor in different territories.

Firm I entered the U.S. market after having developed relationships with U.K. customers who had been buying competing products from global firms. The firm initially tried to establish a strategic alliance in the United States, but this was unsuccessful. It then developed international sales by expanding marketing channels, attending trade shows, and targeting retailers and distributors. Firm I followed a business model and strategy of developing relationships with potential customers through customized products, which had been effective in the United
Kingdom. Using the experience of the CEO in consultation with the chairman and external advisors, and in an attempt to achieve economies of scale in its operations, the firm decided to supply the technology to customers to develop their own products and sell components to new customers that were previously competitors. The new strategy involved setting up an overseas license agreement in Taiwan and sourcing components in Asia. Firm I continued to manufacture some components in the United Kingdom. However, it remained in Stage III throughout the study; its strategy was not successful.

International Enterprise IK. The case firms acquired international enterprise IK from many varied sources. As Table 5 shows, all firms except those in the commercialization Stage II needed international enterprise IK. In discussions with external consultants, Firm I restructured its board of directors and recruited a new chairman to help govern the new marketing strategy. This led to an international strategy led by a newly recruited chairman, in which the firm transferred manufacturing to overseas licensed contractors. This, in turn, required the firm to acquire specific knowledge from external consultants about how to protect its intellectual property and set up license agreements.

Both D and G used consultants to help develop new structures to manage overseas subsidiaries because they did not possess this expertise internally. In addition, Firm G needed this external advice to create more formal management processes to support head office activities, such as such as innovation and new product development. Firm F used external advisors to develop an international marketing strategy, but it also had to make more fundamental changes. It recruited a new nonexecutive director with the necessary IK who, together with senior directors, implemented a delegated management structure of eight management teams to provide timely information to support a rigorous decision-making procedure:

We now have a nonexecutive director to work with the company to improve profitability. It is making us pause for reflection.... The nonexecutive director has brought to us ... a more corporate management style. We now have a monthly management team meeting. All the directors' reports go to him, proposals, manufacturing, process design, sales, business development, finance, plus our other two divisions, the machine shop division and our testing services, so there [are] eight of us there at a management team meeting. (Firm F)

We found that the sources for market entry and localization IK are similar. Firms use their own direct experience but combine that with the experience and knowledge of external advisors and consultants. The firms needed to create processes to enable them to make best use of this knowledge and to embed it in the activities undertaken in the new territories, such as through the establishment of project teams. There was a need to integrate information firm-wide rather than restrict it to particular territories. The firms can develop processes themselves to acquire and process this information, but they may need to create new information systems internally to do this. This capability is likely to be beyond the firms' previous experience, and it may require recruitment of new senior managers.

When Firms Need Specific Categories of IK

We next discuss how firms use the different categories of IK during the different stages of internationalization. Table 6 presents the three IK categories for each of the firms according to their stage of development.

We found that market entry IK was most needed and sought by the newly internationalizing firms—Firm C,
Table 6. Case Firms’ IK Needs During Internationalization

<table>
<thead>
<tr>
<th>Knowledge Need</th>
<th>Stage II</th>
<th>Transition Between Stages II and III</th>
<th>Stage III</th>
<th>Transition Between Stages III and IV</th>
<th>Stage IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>International enterprise IK</td>
<td></td>
<td>Case A</td>
<td>Case I</td>
<td>Cases D, G, H, and J</td>
<td>Cases E and F</td>
</tr>
<tr>
<td>Localization IK</td>
<td></td>
<td>Case A</td>
<td>Case I</td>
<td>Cases G and H</td>
<td>Cases G and H</td>
</tr>
<tr>
<td>Market entry IK</td>
<td>Case C</td>
<td>Cases A and B</td>
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which was in Stage II, and Firms A and B, which transitioned to Stage III—because these firms were inexperienced in internationalization. Firm I, which was in Stage III, needed to know how to adapt a new business model to local markets and to support monitoring and control systems. Firms moving from Stages III to IV (D, G, H, and J) needed international enterprise IK; however, Firms G and H continued to need more market entry and localization IK, particularly as they internationalized into territories with different business systems than those faced in their first internationalization. The two firms in Stage IV, Firms E and F, were only concerned with acquiring international enterprise IK. After periods of high growth followed by decreased sales, they needed to focus on attaining stability and profitability.

We found that firms in early stages of internationalization therefore need market entry IK—for firms in these stages, this is the most important category of IK. As firms develop and gain experience, they may choose to adopt new modes of market entry, for which additional market entry IK will be necessary; this can continue into maturity. Firms require localization knowledge when they establish market entry in new territories and continue to need it for further growth. International enterprise IK is essential for firms that are concerned with stability and profitability internationally; this may become the main IK need of firms at this stage.

DISCUSSION

Previous research has highlighted the importance of IK as a driver of internationalization (Eriksson et al. 1997; Eriksson, Majkgård, and Sharma 2000; Forsgren 2002). Our study has addressed a gap regarding the specific knowledge and capabilities firms need to survive and be profitable from their first internationalization to the larger global market (Zahra 2005). The current research provides a fine-grained understanding of the IK that firms need and acquire over time (Jones and Coviello 2005) and sheds light on the different categories of IK that firms require at different stages of the internationalization process.

Why Firms Need the Three Categories of IK

The findings of this study support Eriksson et al.’s (1997, p. 345) definition of IK as “a firm’s way of going international.” We have clarified what IK is, provided an expanded categorization of what it comprises, and given an explanation of why the different categories of IK are necessary. In particular, we are able to identify more clearly the IK categories and their contribution to the internationalization process. The need arises for new IK as the firm undertakes new processes and procedures in the course of its internationalization.

The firm’s prior IK, comprising generalizations from accumulated experience in different specific territories (Eriksson et al. 1997; Prashantham and Young 2011), may not prepare it for new internationalization challenges. This study has shown that internationalization stalls without relevant IK. It demonstrates that the need for IK is driven by the desire to undertake an internationalization activity that differs from and is not informed by the firm’s previous experience. This leads us to our first proposition:

P1: A firm’s IK needs are generated by the requirement to know how to undertake new activities in the course of pursuing internationalization.

Internationalization process research emphasizes the need for specific market knowledge for new market entry in a target country (e.g., Johanson and Vahlne 1977).
We categorize market entry IK as the knowledge of how to find this market information. As firms pursue market entry strategies into similar territories, they learn their own way to achieve market entry. When they address new countries or require an alternative mode of market entry, they again need market entry IK to adapt their mode to the new context. Forsgren (2002) notes that firms need this IK most when seeking the appropriate entry modes for new markets. This leads us to the following subproposition regarding market entry IK:

\[ P_{1a}: \text{A firm's market entry IK needs arise from the need to know how to adopt a new mode of market entry.} \]

Research in international marketing has identified the need for localization IK, which requires firms to develop an effective strategy in new territories, local "ways of operating," and distribution or sales systems that achieve sufficient scalability and presence (Cui, Griffith, and Cavusgil 2005). Firms in this study needed localization IK to reconfigure their business models, practices, and operational structures in new territories to develop locally competitive businesses. We therefore draw a sub-proposition pertaining to localization IK:

\[ P_{1b}: \text{A firm's localization IK needs arise from the need to know how to reconfigure business strategies and activities to gain competitive advantage in a particular territory.} \]

International enterprise IK is essential if firms are to develop an effective and efficient international business. Firms need internal management processes that will enable their top managers to control, manage, and steer the firm appropriately on an international scale (Cavusgil 1998). The firms in this study found that the need emerged as internationalization progressed, but the necessary experiential knowledge of supportive international processes and systems is not built alongside territory-by-territory expansion. This leads us to our third subproposition:

\[ P_{1c}: \text{A firm's international enterprise IK needs arise from the need to know how to develop processes for the creation and maintenance of a sustainable international enterprise.} \]

Where Firms Source the Three Categories of IK

Internationalization process research has stressed a firm's experience as the main source of knowledge for internationalization (Casillas et al. 2009; Johanson and Vahlne 1977). We categorize market entry IK as the knowledge of how to find this market information. As firms pursue market entry strategies into similar territories, they learn their own way to achieve market entry. When they address new countries or require an alternative mode of market entry, they again need market entry IK to adapt their mode to the new context. Forsgren (2002) notes that firms need this IK most when seeking the appropriate entry modes for new markets. This leads us to the following subproposition regarding market entry IK:

\[ P_{1a}: \text{A firm’s market entry IK needs arise from the need to know how to adopt a new mode of market entry.} \]

Although network relationships are important for gaining market-specific knowledge, they are only of very limited value as a source for market entry IK and are not a source of localization and international enterprise IK. Even if there are networks with this knowledge, it is unlikely that the firms can gain useful IK from them. Some of the limitations that Kenny and Fahy (2011) note regarding networks as sources of knowledge seem to apply here. Internationalization knowledge is highly firm specific in nature and involves experiential knowledge regarding how to approach the process of internationalization, which means that extensive interaction between the source and the recipient of the knowledge is required. Advisors and consultants can provide such interaction, but it is unlikely that network contacts would do the same.

Senior-level skills and knowledge, such as in localization and international enterprise IK, that will enable firms to develop new strategies and break with old ways of doing things internationally may not have been developed previously (Forsgren 2002). In this study, the internationalization of firms that relied only on prior experience was seriously delayed. Firms cannot acquire knowledge about international enterprise IK issues such as international human resource management, international liability, intellectual property management, or global strategic management experientially in the process of developing successful market entries or strategically successful local businesses. Instead, firms must source this new knowledge externally from advisors with internationalization experience or, depending on the specific issues faced by firms, new senior staff. It may be difficult to find candidates with this category of IK, and due to the firm specificity required, people with the precise experience may indeed be rare. This prompts our first proposition regarding the source of IK:
Firms source market entry, localization, and international enterprise IK by combining their direct experience and prior knowledge with the experience and knowledge of external advisors and consultants.

The evidence of this study, in addition to the prior research on which it was built, shows that IK plays a crucial role in the internationalization process. In terms of the RBV (Barney 1991a), IK is a valuable resource for internationalizing firms. Strategically, its importance is generated by its rarity, its imperfect imitability, and its nonsubstitutability. It is not, however, easy to source. The high level of firm specificity in IK requires international businesses to develop new managerial processes to capture and employ it in different territories. Firms must assimilate their externally sourced IK by sharing it with the management team (Amit and Schoemaker 1993; Collis 1994; Fletcher and Prashantham 2011). The internal information systems created to support this are an important capability and source of this knowledge.

Each of the three categories of IK require a unique combination of internal and external sources of knowledge (Dyer and Singh 1998) and total integration with existing knowledge, procedures, and systems in development (Barney, Wright, and Ketchen 2001; Collis 1994; Grant 1996). Firms must combine their own direct experience with that of external advisors, consultants, and appropriate processes, such as new project teams, so that they can embed and use the IK in new territories. In the RBV and knowledge-based view of the firm, this makes IK a valuable strategic resource. Because of the firm-specific context of its value (Cui, Griffith, and Cavusgil 2005), we propose the following:

$$P_{2a}: \text{A firm's IK is a critical resource necessary for the pursuit of an internationalization strategy.}$$

We found all three categories of IK to be valuable resources for internationalization. Firms need market entry and localization IK to enter new territories and establish competitive local strategies; they need international enterprise IK to improve and optimize their international presence. The study found that to develop international enterprise IK, firms had to integrate information firm-wide across functions and territories. This required new international processes such as new information systems and new high-level senior management capabilities. The sources of international enterprise IK are more varied than those of the other two categories, and the integrative capabilities required to embed it in the firm are greater because the firm must also be an international organization that can sustain the changes that result. Such capabilities are established through international organizational development and further increase international enterprise IK's value as a resource for achieving competitive advantage (Dierickx and Cool 1989). Combining previous research with the evidence of this study, we offer the following proposition:

$$P_{2c}: \text{International enterprise IK requires international processes, systems, and structures for firms to assimilate and share knowledge across territories to develop international capability in response to changes.}$$

As a strategic valuable resource embedded within the firm's international routines, however, international enterprise IK enables the firm to develop and change as new demands and challenges arise over time so that it can further build and retain sustainable international competitiveness (Autio, Sapienza, and Almeida 2000; Sapienza et al. 2006). International enterprise IK is thus not only a resource but also a dynamic capability under Teece, Pisano, and Shuen's (1997) notion of the concept, leading to the following proposition:

$$P_{2d}: \text{A firm's international enterprise IK represents a dynamic capability critical for sustaining international competitiveness.}$$

When the Firms Need the Different Categories of IK

The study finds that the type of IK firms need depends on the challenges they face in the different stages of development (Kazanjian 1988); in other words, IK needs are temporal. We observe a pattern of needs that evolves as the firms internationalize, which we depict in Figure 3. This illustrates our observation that market entry IK is necessary to enable the development of an initial presence in new territories and that localization IK is necessary for firms to cultivate that presence into a viable and effective local business. As firms internationalize further and become international businesses, they need to know how to operate efficiently and effectively across borders to sustain international competitiveness and success. From this pattern of observation, we draw the following proposition:

$$P_{3}: \text{A firm's specific IK needs change over the course of its internationalization.}$$

We next consider specific subpropositions pertaining to the temporal IK needs for market entry, localization, and international enterprise IK.
Firms need market entry IK when they enter new markets and seek appropriate entry modes (Forsgren 2002). They continue to need information about how to source market IK and access and use networks in successive market entries that may employ different modes of entry. After the firm has achieved several market entries and consulted external sources of knowledge, it may cultivate a skill set that it can use in subsequent market entries. As firms accumulate experience of operating in different markets, they develop more of this knowledge by generalizing from those experiences (Eriksson et al. 1997; Prashantham and Young 2011).

The market entry IK need predominates at early stages when the requirements for the other forms of IK have not yet become so apparent and when firms may not have useful experience to employ (Anand, Glick, and Manz 2002). Nevertheless, these needs will not disappear; they are continuously prompted by new product or service launches occasioned by internal development of the firm and by evolving conditions and events in the business environment. Firms must learn new approaches as they mature, so the need for market entry IK never disappears completely. This leads us to our first subproposition regarding the temporal needs for market entry IK:

P3a: The need for market entry IK predominates at the early stages of internationalization and continues to be necessary for identification of new approaches to market entry.

Localization IK was not evident in the early stages of internationalization when the concern was achieving market entry. The need for localization IK begins to dominate in Stage III. Firms may implement market entries using a business model developed in a home market; they observe the need for localization IK when it becomes apparent that deficient performance in these new territories is the result of an inappropriate local strategy (Griffith, Zeybek, and O’Brien 2001). This need appears after an internationalizing firm has achieved market entry and begins to develop as an international business to maintain effective international growth (Cui, Griffith, and Cavusgil 2005; Prashantham and Young 2011).

As firms became more established, they will acquire and develop their own processes to identify the need for local strategies and drive their development (Fletcher and Prashantham 2011). The need for localization IK does not necessarily disappear; firms in this study continued to need it as they entered Stage IV. Novel localization strategies are required when new competitive or other businesses challenges arise within different territories. This leads us to our second temporal subproposition:
The case firms in Stages III and IV did not yet possess a coherent and comprehensive set of skills, procedures, and structures for managing diverse and geographically distributed operations that would enable them to manage their firms in such a way that their businesses overall would be successful. The need for international enterprise IK only became apparent after the firms had achieved a succession of market entries and developed competitive positions in these new territories. Firms observed and addressed this need when international growth presented challenges for internal management and organization. This leads to our third temporal subproposition:

\[P_{3b}: \text{The need for localization IK arises after market entry and continues to be necessary as firms face new competitive challenges in different territories.}\]

Despite these contributions, there are certain caveats and limitations that should be considered before generalizing this logic to other contexts. The case firms differed in terms of industry sector and in other aspects, which is important to note because the internationalization processes, challenges, and knowledge needs are firm, industry, and context specific (Fernhaber, McDougall-Covin, and Shepherd 2009; Sigfusson and Harris 2013). Further research should address differing industry, firm size, and market contexts. In addition, between-case differences need to be examined in relation to these contexts (e.g., in relation to technological intensity and relational governance strategy). We also view our internationalization stages as “epochs” of internationalization that the firms experience (Oesteerle 1997). Because critical episodes in firms’ development influence the focus of their internationalization (Bell et al. 2003), future studies could examine the effects of these on IK knowledge needs. Furthermore, because the inductive approach we adopted may have failed to uncover some other microdimensions of knowledge, future studies may explicitly consider the tacitness of the IK, the extent to which it is codified, and related communication issues of frequency, modality, noise, and intensity. Finally, we studied firms that were explicitly driven toward internationalization, but firm strategy can move toward or away from becoming more international, so the effect of these different motivations should be considered.

Our longitudinal approach enabled us to make several contributions that would not have been possible with a cross-sectional study of the type that dominates in this field of study. First, because we could directly observe the consequences for the firms that did not gain it IK, we were able to understand its importance. Second, we observed how firms sourced in different ways as they undertook the learning that we associate with the internationalization process (Johanson and Vahlne 1977, 2009). Third, our approach enabled us to demonstrate the importance of the stages of development and to contribute temporal propositions regarding the different categories of IK. We suggest that researchers develop longitudinal studies to address the challenges of internationalization that alter a firm’s IK requirements over time.

We present propositions for the consideration of the research community. It is our intention that these propositions will result in the creation of a new stream of IK research. The results of this study make a compelling case for the importance of IK for international business research. There is much more to be learned in the development of IK theory, and our findings should be viewed...
as a call for research in the IK arena. Future studies using firms that face different challenges may well identify other categories of IK that further enrich our understanding of the role of IK in the internationalization process. Using our study, empirical measures should be developed for each knowledge category to facilitate quantitative assessment across markets, industries, and stages of development. We encourage researchers to dig further into what, where, and when questions about IK and to investigate how managers operationalize this knowledge.

Managers have much to learn from our results. The study shows how internal capability deficiencies inhibit internationalization. Firms benefit from external help in finding and accessing markets and in forming and implementing their internationalization strategies (Young and Tavares-Lehmann 2007). Previous research has recognized the importance of IK for internationalizing firms; this study emphasizes the managerial importance of three distinct categories of IK: market entry, localization, and international enterprise. The cases illustrate what each of these categories means to managers in practice. Our analysis details which categories of IK are important as well as when and where managers should seek this knowledge. The managers of the firms in this study all benefited from the external advisors and/or consultants who helped them recognize and address their firm’s IK needs. Managers and advisors of internationalizing firms should appreciate the importance of the different categories of IK and seek to acquire them before reaching the stage of internationalization in which they become critical.

Appendix. Case Firms and International Sales

<table>
<thead>
<tr>
<th>Firm</th>
<th>Business Type</th>
<th>Start Year</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Total Sales</td>
<td>International Sales</td>
<td>IS%</td>
</tr>
<tr>
<td>A</td>
<td>Education provider</td>
<td>2002</td>
<td>4</td>
<td>2.72</td>
<td>67</td>
</tr>
<tr>
<td>B</td>
<td>Aviation software development</td>
<td>2001</td>
<td>1.6</td>
<td>N.A.</td>
<td>2.4</td>
</tr>
<tr>
<td>C</td>
<td>Clothing manufacturer</td>
<td>2005</td>
<td>N.A.</td>
<td>N.A.</td>
<td>N.A.</td>
</tr>
<tr>
<td>D</td>
<td>Alloy processing manufacturer</td>
<td>1996</td>
<td>19.2</td>
<td>12.8</td>
<td>67</td>
</tr>
<tr>
<td>E</td>
<td>High-fidelity manufacturer</td>
<td>1973</td>
<td>67.2</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>F</td>
<td>Oil and gas product manufacturer</td>
<td>1979</td>
<td>40.0</td>
<td>23.2</td>
<td>58</td>
</tr>
<tr>
<td>G</td>
<td>Clothing manufacturer</td>
<td>1960</td>
<td>59.2</td>
<td>30.4</td>
<td>51</td>
</tr>
<tr>
<td>H</td>
<td>Optical testing technology/manufacturer</td>
<td>1993</td>
<td>5.76</td>
<td>4.8</td>
<td>83</td>
</tr>
<tr>
<td>I</td>
<td>Digital media technology</td>
<td>1991</td>
<td>14.4</td>
<td>1.6</td>
<td>11</td>
</tr>
<tr>
<td>J</td>
<td>Biotechnology, diagnostic testing product manufacturer</td>
<td>1987</td>
<td>8.3</td>
<td>5.8</td>
<td>70</td>
</tr>
</tbody>
</table>

Notes: Total and international sales figures presented in millions of dollars. IS% = percentage of international to total sales. N.A. = not applicable.
REFERENCES


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