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A CAPABILITIES PERSPECTIVE ON THE EFFECTS OF EARLY INTERNATIONALIZATION ON FIRM SURVIVAL AND GROWTH

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Recent critiques of internationalization process models question the wisdom of delaying internationalization. Internationalizing late allows firms to assemble resources and gain experience but also allows inertia to develop. We resolve this tension by positing that internationalization has differing effects on firm survival and growth. These effects are moderated by organizational age, managerial experience, and resource fungibility. Our framework provides insights into the evolution of capabilities across borders and may be tested and built on by organization researchers.

Early internationalization of start-ups has challenged traditional theories of internationalization, prompting researchers to investigate the sources and implications of this phenomenon (McDougall, Shane, & Oviatt, 1994; Zahra & George, 2002). In particular, the behavior of new ventures that commence internationalization at or shortly after their inception has highlighted the need for a closer examination of the impact of early internationalization on the probability of these ventures' survival and growth. The process theory of internationalization considers international entry as an incremental process that begins relatively late in a firm's life cycle; it warns of potentially negative consequences of early internationalization on firm survival (Eriksson, Johanson, Majkgård, & Sharma, 1997; Johanson & Vahlne, 1977, 1990). In contrast, researchers seeking to explain determinants of early cross-border activity portray early internationalization as a catalyst for growth, particularly in dynamic and technology-intensive sectors (Oviatt & McDougall, 1994; Zahra, Ireland, & Hitt, 2000). While both arguments offer explanations for the timing of internationalization, neither fully explores the implications of early internationalization for organizational survival and growth (Zahra, 2005). Consequently, we seek to show that examining the effects of early internationalization on both outcomes can help resolve some of the apparent theoretical and empirical contradictions of the recent past.

In this article we present a framework for the influence of internationalization on the survival and growth of firms by building on the emerging literature on the dynamic capabilities view of the firm (Helfat & Peteraf, 2003; Teece, Pisano, & Shuen, 1997). Dynamic capabilities are the organizational and strategic routines by which managers alter their firms' resource base through acquiring, shedding, integrating, and recombining resources to generate new valuecreating strategies (Eisenhardt & Martin, 2000). Capabilities are configurations of routines and resources that allow an organization to achieve its goals (Nelson & Winter, 1982), whereas dy-

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namic capabilities reflect a firm's capacity to reconfigure its capabilities to adapt to its environment.

We build on the idea of organizational "imprinting," the process by which events occurring at key developmental stages have persistent and possibly lifelong consequences (Hannan, 1998; Stinchcombe, 1965). We argue that the earlier a firm internationalizes, the more deeply imprinted its dynamic capability for exploiting opportunities in foreign markets will be. By exposing young firms to multiple and diverse exogenous (e.g., competitive conditions) and endogenous (e.g., resource demands) stimuli, early exposure to internationalization creates an imprint for adaptability to uncertain environments and an internal receptivity for continual change. While some researchers have suggested that capabilities gained by virtue of early internationalization may give new ventures learning advantages that increase the probability of growth (Autio, Sapienza, & Almeida, 2000), the causal logic of this relationship has not been fully articulated (Zahra, 2005).

The early part of a firm's internationalization process provides an interesting context in which to study the development of organizational capabilities. As young firms venture into foreign markets, they face uncertainty and risks that trigger a process of learning and adaptation (Lu & Beamish, 2001). Studies that invoke process arguments for internationalization tend to depict learning and capability development as causal influences on the speed, scope, and effectiveness of internationalization efforts (Barkema, Bell, & Pennings, 1996; Delios & Beamish, 2001; Luo & Peng, 1999; Zahra et al., 2000). These studies recognize two main constraints to organizational learning and capability development during early internationalization: resource allocations to foreign market activities and accumulated experience from foreign markets. As a firm extends the scope of its activities beyond national borders, it needs to adjust its resource configurations to support cross-border activity (Hitt, Hoskisson, & Kim, 1997). Through accumulated experience in the foreign market, the firm gains local market knowledge and develops routines and processes for dealing with the foreign context (Barkema, Shenkar, Vermeulen, & Bell, 1997; Chang, 1995). Taken together, the combination of resource reconfigurations and the routinization of organizational processes constitute a capability for new market entry (Helfat & Lieberman, 2002). Therefore, studying internationalization using a capabilities lens is appropriate and complementary to other resource-based explanations (Westhead, Wright, & Ucbasaran, 2001). This theoretical integration improves our understanding of the sources of competitive advantage new ventures might develop in international markets—an important concern in the study of international entrepreneurship (Zahra, 2005; Zahra & George, 2002).

We advance two primary arguments in this article. We extend the perspective developed by Autio et al. (2000), who posit that early internationalizers are more likely to grow rapidly than older entrants because of "learning advantages of newness." These authors conclude that, despite significant liabilities of newness, younger firms also enjoy some learning advantages in new environments that can spur growth.

However, Autio et al. do not assess the potential threats to survival induced by early internationalization. Therefore, we extend their analysis by suggesting that early internationalization may decrease the probability of survival but simultaneously increase prospects for growth. This is an interesting contrast to the dynamic capabilities literature, which typically assumes that capability development has only positive effects on firm performance. We argue that initiation of internationalization activities (activities that eventually create new capabilities) is an investment-intensive process that saps a firm's resources and, thus, may reduce the chances of firm survival in the short term. Thus, we address the timing of capability development and its performance consequences; this issue is especially important to newer firms because they have to work hard and fast to develop capabilities that allow them to internationalize operations.

An underlying assumption of our model is that the survival and growth of firms do not necessarily covary. Although firms must survive in order to experience future growth and although, at times, growth is necessary to enhance survival, these two key outcomes are conceptually distinct, and their empirical relationship is complex (Delmar, Davidsson, & Gartner, 2003; Romanelli, 1989). Growth and survival are distinct outcomes; survival does not guarantee growth, and not all growth is profitable (Markman & Gartner, 2002). For example, firms may increase international growth through aggressive pricing strategies, but such actions may lead to organizational decline. Alternatively, failure to enact strategies appropriate to rapid industry expansion can also be associated with increased organizational mortality (Romanelli, 1989). The resource demands of growth are challenges that, if survived, may make a young firm stronger, yet many will be unable or unwilling to develop the dynamic capabilities required.

Dobrev and Carroll (2003) found that mortality rates are lowest at the extremes of organizational size relative to localized competition, indicating that firm growth does not uniformly increase or decrease the probability of survival. Similarly, Romanelli (1989) uncovered a complex relationship between industry growth and mortality. She found that industry growth was associated with greater organizational survival but that this relationship was moderated by firm strategy; specifically, specialization induced greater mortality in high-growth industries, while aggressive expansion induced greater mortality in low-growth industries.

In short, the relationship between growth and survival is neither linear nor simple. In this article we focus on why early internationalization, as a strategic choice, may differentially affect young firms' prospects for survival and growth.

Building on the organizational survival literature, we posit that age at internationalization,¹ managerial experience, and resource fungibility moderate the impact of internationalization on the probability of firm survival and growth. Hannan, Carroll, Dobrev, Han, and Torres's (1998) review of the literature suggests that imprinting from founding conditions, experience, resource endowments, and capabilities are important predictors of survival. We expand their arguments to explain why these predictors are pertinent to the outcomes of young firms' internationalization.

First, we hypothesize that the younger the firm at internationalization, the stronger the imprinting effect will be, because internationalizing early develops specialized capabilities for rapid adaptation to the external environment. However, although specialized capabilities may provide a platform for subsequent growth in young firms, their lack of any positional advantages (i.e., status, trust, or reputation emanating from social embeddedness) and the absence of incipient routines reduce the likelihood that these firms can survive the demands of early internationalization.

Second, we posit that managers' previous international experience influences the outcomes of internationalization because it partially substitutes for the lack of organizational experience with internationalization. Huber (1991) suggests that even new firms do not start with a clean slate; they inherit the skills and experiences of their key founders. The capabilities literature suggests that routines codify the knowledge distributed among an organization's members (Nelson & Winter, 1982). In new firms the conspicuous lack of organizational experience is therefore likely to exacerbate the cost of internationalization. The importation of routines from the managerial team's previous employment experience with international markets serves as the embryonic routines to enter new markets, consequently reducing the time and costs of capability development.

Finally, whereas a large resource endowment is an advantage, we propose that the fungibility of a firm's resources (i.e., the attributes of the resources that allow or inhibit their deployment for alternative uses) plays a critical role in determining the costs of capability development and deployment. We propose that because fungibility reduces the costs of sunk investments in internationalization, young firms with fungible resources have enhanced prospects for survival and growth. We use fungibility also because it is independent of organizational size, and we seek to focus on age effects independent of size.

Our three moderators are conceptually related in that they are expected to alter the development of dynamic capabilities and, hence, the impact of internationalization on survival and growth. For the most part, we believe them to be empirically independent of one another, although some relationships are possible. To the extent that we focus on international managerial experience *prior* to the current venture, experience should be independent of venture age. Given the need for strategic flexibility in adapting to international management experience

¹ Age should not be confounded with size, although the two correlate strongly in new firms. Our focus is on the effects of age, not organizational size, on the capability development process during internationalization.

may be systematically related to resource fungibility (e.g., managers with prior international experience become aware of the need for flexibility and therefore may prefer fungible resources), but, at this point, this is speculation. Young firms have to retain this flexibility in their operations as they learn about their international markets and redeploy their resources in ways that give them an advantage in their chosen niches. Fungibility may be related to industry type more than to firm age, since some industries utilize certain types of resources to a greater degree than others.

Our complete model is shown in Figure 1. The model indicates a direct negative effect of internationalization on short-term survival prospects and a direct positive effect of internationalization on short-term growth prospects. It also shows the moderating effects of organizational age, managerial international experience, and resource fungibility. We next develop the rationale behind our arguments regarding the influence of internationalization on survival and growth by drawing on the dynamic capabilities literature and international entrepreneurship literature.

INTERNATIONALIZATION, SURVIVAL, AND GROWTH

Many well-established theories of internationalization exist (e.g., Dunning, 1988; Vernon, 1979), but two frameworks have dominated the study of internationalization of young firms: the process theory of internationalization (Johanson & Vahlne, 1977, 1990) and the new venture internationalization framework (McDougall et al., 1994; Oviatt & McDougall, 1994). Proponents of the process theory originally sought to explain internationalization patterns across developmental stages among Swedish manufacturing firms in the mid 1970s (Johanson & Vahlne, 1977, 1990). Drawing primarily on the behavioral theory of the firm (Cyert & March, 1963) and Penrose's (1959) theory of firm growth, process theorists have depicted a gradual process wherein firms respond to pressures to internationalize with marginally increasing resource commitments to enter new markets. In this view, the process is incremental because uncertainty avoidance slowly gives way to the exploration of foreign markets by accumulating knowledge/experience from prior sequential entries.

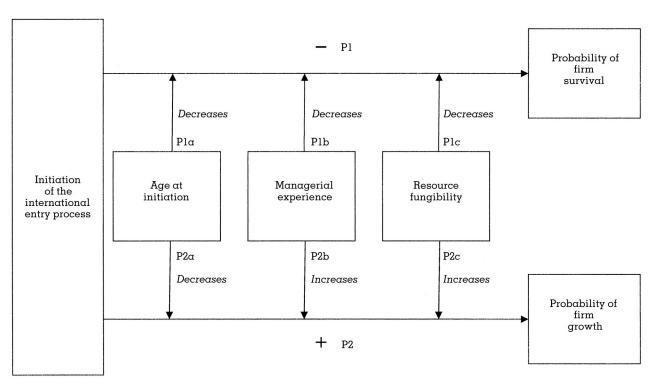


FIGURE 1 A Model of Internationalization, Survival, and Growth

Proponents of the process perspective assume that only direct firm-level internationalization experience matters for managerial decisions to further internationalize. The greater the firm's accumulation of experience of foreign market activities, the more its management can make further resource commitments to cross-border activities. Thus, an interaction exists between the firm's exposure to foreign market conditions and its own resource commitments to crossborder activities or the resource commitments of close competitors (e.g., Delios & Henisz, 2003; Erramilli, 1991; Luo & Peng, 1999; Martin, Swaminathan, & Mitchell, 1998).

The new venture internationalization framework (McDougall et al., 1994; Oviatt & McDougall, 1994) has challenged process theory for being unable to explain why some firms internationalize their activities early on and expand their international activities rapidly thereafter. This framework attributes early internationalization to the entrepreneurial competencies of the venture's management team. Thus, the decision to internationalize is depicted as entrepreneurial and proactive-that is, the new venture initiates internationalization in pursuit of growth opportunities. The framework also lists a number of factors that make early internationalization possible, including the knowledge intensity of the firm's resources, improved infrastructure for cross-border operation, and the use of alternative governance mechanisms to access and mobilize resources across national borders.

Implicitly, the core difference between the two perspectives is that the process theory (Johanson & Vahlne, 1977, 1990) discounts the value of prior experience, knowledge, or personal resources such as social networks as a mitigating factor of firm-level aversion to entering new markets (e.g., Yli-Renko, Autio, & Sapienza, 2001). In the process theory of internationalization, the history of firm actions supersedes the relevance of individuals' prior experience. In contrast, in the new venture internationalization view (McDougall et al., 1994), individuals' skills, experiences, and networks (even if developed in prior ventures) are described as critical to the decision to internationalize. As models of the motivations for early internationalization, the two are complementary in that process theory is

intended to cover the "general" case and the new venture view explains why some firms initiate international activities early.

Although the two perspectives both address the process of internationalization, they appear to assume different fundamental goals for firms. The process theory assumes that survival is of central importance to the firm. It implies that firms see internationalization as a "shock" to the organizational knowledge base and fear that premature entry will threaten survival. Proponents of the process view see firms as seeking to avoid uncertainty while simultaneously seeking growth; thus, these firms grow incrementally by gradually entering more distant markets over time.² In contrast, proponents of the new venture internationalization view see growth opportunities as a driver of the choice to internationalize. This view focuses on the positive outcomes available through early internationalization and implies that hesitation means lost opportunity.

As yet, few studies have examined the survival or growth implications of early internationalization, and the empirical findings are inconclusive (Brush, 1992; Zahra & George, 2002). Neither framework adequately considers the entire range of performance implications of early versus late internationalization. In our view, both perspectives are valid in that they correctly identify key concerns for young firms. Yet we need to consider both survival and growth implications in order to develop normative prescriptions regarding the timing of internationalization.

Our interest centers on examining the consequences of internationalizing for young firms not in explaining the decision to internationalize. A significant amount of research has been conducted within the field of international entrepreneurship on the antecedents of new ventures' decision to internationalize (for reviews, see Zahra, 2005, and Zahra & George, 2002). This extensive research highlights the need to examine the effect of internationalization on profitability and growth. Our premise is that both survival and growth prospects are affected by the decision to internationalize, and they ultimately influence one another as well. Consequently, it is crucial to consider both simulta-

² We thank an anonymous reviewer for this comment.

neously. In response, below we develop propositions for the potential effects of early internationalization on survival and growth, holding constant such factors as motive for and mode of internationalization.

Internationalization and Survival

When firms enter their first foreign market, they are faced with the tasks of creating entirely new routines and adapting some of their existing routines. Routine generation and adaptation are resource-intensive processes that require substantial investments (Zott, 2003). For example, the CEO and other executives will have to divert their attention to the modalities of entry, new personnel may have to be hired, and new relationships must be established and nurtured.

The cause of lower survival rates following internationalization may fall into two categories: the need to develop internal processes, such as the routines required for coordination of activities within the organization, and the need to develop external processes, such as the routines to develop market-related capabilities or relationships with other organizations (Singh, Tucker, & House 1986). New firms also lack the positional advantages that accrue to firms that are more established and socially embedded in an industry (Hannan, 1998; Stinchcombe, 1965). The investments required to generate new routines for market entry and to build positional advantages add substantively to the costs of foreign entry. These costs can be significant and enduring. Indeed, Mitchell, Shaver, and Yeung (1994) found that these factors contribute to the failure of many firms subsequent to foreign market entry.

While our focus is on initial entry, the costs associated with creation of new routines and positional advantages are likely to decrease over subsequent entries as organizations learn from experience. For example, Vermeulen and Barkema (2001) found that firms going international experienced more trial-and-error learning with regard to choice of entry mode (greenfield versus acquisitions) and tended to leverage similar domain expertise across subsequent entries. These costs are likely to decrease over time, as fewer new routines have to be developed and fewer resources have to be reallocated or acquired. Therefore, we expect that the shock to an organization, in terms of investment costs, is highest at the initiation of the international entry process, and, consequently, the probability of survival is lowest at this time. While our arguments revolve primarily around the *initial* internationalization effort and its deleterious effect on the likelihood of survival, they also apply (albeit decreasingly) to later entry events.

In a study of financial service firms, Zaheer and Mosakowski (1997) found that while foreign entrants (subsidiaries of larger firms) failed at a greater rate than domestic incumbents, there were time lags before the higher mortality rate became statistically significant. They attributed the lag in failure to the provision of resources by parent firms—resources they said were provided by parents to give the subsidiaries adequate time to recover costs associated with internationalization. In the case of independent firms, no parent exists to provide resources needed to sustain the adaptation or generation of routines for market entry.

To summarize, entering foreign markets causes a shock to the organization as it seeks to avoid uncertainty and to reconfigure routines and resources to adapt to competitive pressures, industry practices, and customer demands. Because such costs are significant, the probability of failure increases following foreign market entry. Therefore, as suggested in Figure 1, we posit the following.

> Proposition 1: Ceteris paribus, internationalization decreases a firm's probability of survival following initial foreign market entry.

Internationalization and Growth

Although internationalization initially decreases prospects for firm survival, it also exposes a firm to opportunities to grow and to learn about how to grow. Internationalization exposes the firm to uncertainty and risks, contexts that force it to adapt to its new environment through structural changes. Organizations adapt by generating new routines for market entry and reconfiguring their resource base to support such activities, thereby creating a new capability for international entry. We suggest that this capability can be leveraged as a platform for expanding the scope of these firms' activities, products, and markets, providing an impetus for rapid growth. Exposure to early uncertainty and its impact on structural changes is also likely to instill openness to change and adeptness at adaptation. The literature on an organization's founding conditions reinforces this argument (Stinchcombe, 1965). For example, events occurring during the developmental stages of an organization tend to have lasting consequences, described as "imprinting" (Hannan, 1998). Such imprinting influences the firm's decision to invest resources in developing one set of capabilities over others—that is, a self-reinforcing path dependence in capability development is set in motion (Helfat, 1997; Rosenbloom, 2000).

A firm's exposure to internationalization has the potential to imprint an ability for successful adaptation. Internationalization also exposes the firm to uncertainties arising from new market conditions, requiring the generation of new capabilities. In sum, internationalization influences the development of capabilities that give the organization the flexibility to pursue opportunities for growth.

The number of productive opportunities open to a firm also multiplies when the firm enters a new market (Brush, 1992; Penrose, 1959). Entry gives the firm firsthand knowledge of the market and connects it with competitors, customers, suppliers, and innovation centers outside its domestic market (Birkinshaw, 2000)-that is, the firm begins to build positional advantages within the new market. These contacts give the firm a basis to identify opportunities for growth in foreign markets (Zahra et al., 2000), thereby increasing the number of productive applications of the firm's resources. To the extent that the firm can leverage its capabilities across markets, foreign entry will improve its ability to expand operations and to build a strong revenue base (Birkinshaw, 2000; Hamel & Prahalad, 1993). Organizations also develop capabilities in international markets that can be leveraged to help their core business in the domestic market.

> Proposition 2: Ceteris paribus, internationalization generates new opportunities for a firm and increases its probability of growth following foreign market entry.

Proposition 2, as well as our later propositions on growth, focuses on the *likelihood* that the new venture will grow subsequent to its international entry, but we are predicting neither the rate nor the *duration* of growth. As Delmar et al. (2003) found in their cohort analysis of Swedish firms, the growth patterns of new ventures may vary greatly over time, and these patterns likely are influenced by different factors. Here, our focus is strictly on the probability of growth subsequent to the initial international entry event.

It is important to the advancement of the international entrepreneurship literature that we examine factors that explain different effects of internationalization on survival and growth (Zahra, 2005). The number of potential moderators is vast (e.g., home and host country economic and cultural characteristics, mode of entry, firm size and resource abundance, motivation for entry, etc.). However, we emphasize organizational age, managerial experience with internationalization, and resource fungibility as critical moderators of the outcomes of internationalization. We highlight these endogenous variables because they are central to internationalization, organizational survival, and learning theories. They represent an important set of variables capturing emergent dialogue on the development and deployment of a new firm's dynamic capabilities.

The differences in emphasis of the internationalization process theory and the new venture internationalization framework may be observed most easily in their differences in assumptions regarding issues of the timing of initiation of the internationalization process. The former theory emphasizes the behavioral tendency of firms to avoid uncertainty and, thus, to delay initiation of the process, whereas the latter emphasizes the leveraging and developing of advantages that may be afforded through early internationalization. In the sections that follow, we apply learning and capabilities perspectives to show how a firm's age at initiation of internationalization activities, its level of managerial experience, and its level of resource fungibility moderate the direct effects of internationalization on survival and growth.

Moderating Effects of Age

Organizational theorists have systematically examined the relationship between firm age and the risk of mortality (Hannan et al., 1998). Among the most cited arguments is Stinchcombe's (1965) liabilities of newness—that is, young firms are vulnerable to mortality because they have yet to develop the routines, relationships, and status necessary to efficiently engage in the social and economic exchanges critical to their survival. This argument suggests a simple, linear relationship between organizational age and survival: firms are most fragile in infancy and become more viable over time. A review of the literature, however, reveals divergent arguments (i.e., the life history dynamics view and the structural inertia view) regarding the effects of aging on survival.

The life history dynamics (or learning) view depicts young firms as especially subject to environmental selection (e.g., Stinchcombe, 1965). It posits that, as they age, firms build capabilities and positional advantages (arising from the social structure of industries) that make them decreasingly subject to mortality. Conversely, the structural inertia view holds that organizations have a limited capacity to reshape their core structures in response to environmental changes (e.g., Hannan et al., 1998). This happens because, as environmental conditions continue to change while they cling to their original structures, firms become increasingly "unfit" for the environment and, thus, increasingly subject to mortality. At this level of abstraction, these contradictory formulations cannot comfortably coexist. It is more likely that age interacts with other organizational and environmental conditions to create a complex pattern of effects (Hannan, 1998: 127). Accordingly, we posit that the effects of internationalization on survival and growth will depend, in part, on the age of a firm when it initiates its internationalization activities.

In developing Proposition 1, we argued that the initiation of the internationalization process requires a firm to alter many of its core activities or to generate new capabilities, structures, and routines. While such efforts expand growth opportunities, the high cost of their development decreases the probability of survival, at least in the short run. During the initiation of its first international entry, a young firm faces more severe capability and positional disadvantages than older firms. That is, the younger firm faces the dual task of developing new routines and building key social relationships in its home market and concurrently developing these capabilities and connections in a foreign market.

Structural inertia arguments would suggest that younger firms may, in fact, be more willing than older firms to dynamically develop the capabilities necessary to effectively compete in new foreign markets, but they may not be able to survive the efforts required to do so. A new venture that is also entering a new market must create parallel sets of solutions, relationships, identity, and legitimacy both at home and abroad (Pakes & Ericson, 1998; Stinchcombe, 1965). Thus, with little reputation or history of excellence, a strategic error may destroy a new venture's chances of "catching on" in a new market. As a firm grows older, it will still be susceptible to failure from internationalization but will be able to leverage reputation, brand recognition, sales and distribution channels, social capital, organization culture, and customer loyalty (Anand & Delios, 2002; Hamel & Prahalad, 1993), which help soften the shock of sudden downturns or strategic missteps.

In summary, we posit that the relationship between the internationalization process and firm survival is moderated by the age of the firm. Empirical results support this view. In a study of entry and exit patterns using a sample of 649 entries and 441 failures in the personal computer industry, Henderson (1999) found that age did not have a simple relationship with survival but, rather, interacted with firm strategy. Moreover, the joint effects of age and strategy produced tradeoffs between growth and survival. Consistent with our above arguments, the implication is that the impact of strategy on mortality may be contingent on the age of the firm. Consequently, we contend that the initiation of the internationalization process produces many opportunities for young and old firms alike, but older firms will be able to better bear the strain of such a pursuit.

It is also likely that the manner in which older and younger firms try to develop new capabilities may differ; young firms may adopt an entrepreneurial orientation to internationalizing, an approach that involves risk taking, innovation, and proactivity (Lumpkin & Dess, 1996), all of which exacerbate threats to mortality. Consistent with the emphasis in the process theory of internationalization, hesitancy to internationalize early is rational in terms of ensuring firm survival. In new ventures, the ability to bear the costs of developing new dynamic capabilities is low. These firms have a shallow stock of reserves; for them, even the slightest misstep may be fatal. As they age, however, they have an increasingly fortified base from which to mitigate the costs of internationalization.

> Proposition 1a: Organizational age will moderate the outcomes of internationalization such that the younger a firm at initiation of the internationalization process, the greater the negative effects of internationalization will be on the probability of the firm's survival.

Autio et al. (2000) proffer that younger firms tend to adopt more novel approaches to internationalization than older firms. These authors also hypothesize that, in terms of leveraging opportunities for growth, younger internationalizers possess some "learning advantages of newness" over older firms. This learning advantage is parallel to the literature on "the liability of senescence" in older firms (Hannan, 1998), where capabilities become increasingly unfit and resistant to change over time. Hesitancy to pursue opportunities vigorously as a firm gets older may arise from cognitive, structural, and positional causes. These perspectives suggest that firm age may also moderate the effects of internationalization on firm growth.

Over time, the effective pursuit of growth can be hampered by competency traps (Cohen & Levinthal 1990). Firms can get locked out of certain types of knowledge if they do not acquire it early (Hannan, 1998). Competency traps become acute over time because of the path-dependent nature of knowledge, and they effectively limit firms to the pursuit of a narrow set of opportunities suited to their existing capabilities (Ahuja & Lampert, 2001). These traps not only constrain what can be effectively pursued but also limit firms' ability to recognize and exploit new opportunities. Thus, the later a firm internationalizes, the more likely it will possess entrenched routines, which may filter and restrict search processes for opportunities (Gavetti & Levinthal, 2000). For very young ventures first entering foreign markets, however, existing routines will be few in number and simple in nature.

Barkema and Vermeulen (1998) argue that internationalizing firms must unlearn routines before new routines are adopted. The difficulty of unlearning established routines increases over time because of inertial constraints as firms grow older. New knowledge must contend with embedded approaches to operations (i.e., the "dominant logic" guiding strategic choices [Bettis & Prahalad, 1995]) that constrain exploitation of growth opportunities.

A young firm is likely to possess some structural advantages when pursuing opportunities in international markets. At start-up, managerial roles are relatively undifferentiated and lines of authority and responsibility shared (Miller & Friesen, 1984). For the new venture, this lack of differentiation allows executives to share knowledge across and between functional areas. As the firm matures, managerial roles become increasingly differentiated and may reduce shared knowledge content and the intensity of communication across roles. The propensity of managers to seek new knowledge also becomes hampered over time, as the knowledge becomes calcified and stored in increasingly specialized bins (Autio et al., 2000). Therefore, the younger the firm at first international entry, the greater the likelihood that when individuals perceive growth opportunities, they will be shared easily and quickly within the organization.

Finally, the very positional advantages that older firms possess may inhibit their pursuit of new opportunities. Going into new markets is likely to threaten the existing economic and political exchanges on which an organization thrives. Commitments to existing relationships consume resources that might otherwise be used to gain external knowledge from new partners in foreign markets and to develop capabilities and routines for pursuing growth in these markets (Autio et al., 2000). Further, managers whose positions depend on their superior knowledge and contacts with regard to the venture's current markets will resist a shift in the firm's focus to foreign domains that may result in a loss of power and influence. These relationships become increasingly embedded over time so that the incentive and ability to pursue growth outside home markets decrease the longer the firm waits to internationalize.

In summary, internationalization has a positive influence on the expansion of growth prospects for all firms, but this effect is likely to be greater the earlier a firm initiates its internationalization efforts. Our arguments assume increasing inertial constraints with age that act as disincentives to reconfigure routines for pursuing growth opportunities. These inertial disincentives are outcomes of path dependencies in knowledge accumulation, calcification of routines, and relational commitments. Lu and Beamish's (2001) finding that firm age negatively moderated the relationship between internationalization and subsequent growth of 164 Japanese SMEs provides some empirical support for these arguments. Thus, as shown in Figure 1, we posit the following.

> Proposition 2a: Organizational age will moderate the outcomes of internationalization such that the younger a firm at initiation of the internationalization process, the greater the positive effects of internationalization will be on the probability of the firm's arowth.

Moderating Effects of Managerial Experience

Given that knowledge is a critical determinant of international expansion in both the process and new venture theories of internationalization, experience with foreign market entry becomes a key contingency of the internationalization-performance relationship. In Propositions la and 2a, we highlighted the impact of age on the outcomes of internationalization. Now, we make a distinction between the age of the firm and the experience of the firm and its management team. We argue that the knowledge embodied in prior managerial experience with internationalization, either individually or jointly, will influence the outcomes of internationalization independently of the effects of firm age.

In the international business literature, researchers often focus on the effect of organizational experience with prior entries on subsequent entries regarding such outcomes as market selection (Erramilli, 1991), choice of entry modes (Barkema et al., 1996), uncertainty reduction (Delios & Henisz, 2003; Luo & Peng, 1999), and performance of firms' subunits (Delios & Beamish, 2001). As Eriksson et al. observe, organizational experiential knowledge "exerts an influence on the firm's future internationalization through its influence on the search process" (1997: 345). However, the effect of prior managerial experience on the outcomes of the initiation of the internationalization process remains unclear.

We propose that managers' international experience from their previous employment moderates the relationship between the initiation of the internationalization process and its outcomes. A firm's experience with an event, as well as the context of that event, triggers the generation of new routines (Nelson & Winter, 1982). However, when firms enter international markets for the very first time, shared routines and the stock of solutions to produce a collective response are absent. In such cases, Helfat and Lieberman (2002) propose that prehistory resources, such as experience gained before the creation of the venture, are likely to play a key role in entering new product markets. Firms in which the founding team members were exposed to internationalization in their previous employment can help guide the start-up's first foray into foreign markets. Even in large, diversified, multinational firms, the initiation of foreign entry and its attendant routines, such as plant location and establishment of buyersupplier relationships, is a costly process that can threaten firm viability. Firms are more likely to undertake such activities if their managers have gained experience from previous entries into similar uncertain environments (Henisz & Delios, 2001; Martin, Mitchell, & Swaminathan, 1995).

Entering a foreign market for the first time is a costly learning process that may decrease shortterm survival chances but enhance long-term growth prospects. The lack of prior experience among venture managers increases the costs of the internationalization process itself, because the firm has few, if any, solutions to problems that it might encounter in the foreign market (Eriksson et al., 1997). Consequently, only to the extent that managers can draw from their prior internationalization experiences can they incorporate learned routines into their firm's repertoire of emergent routines.

The internalization of routines from prior managerial experience benefits the firm in three ways. First, importing aspects of previously established routines substantially decreases the costs of experimentation with new solutions or trial attempts to arrive at optimal solutions. Second, importation can decrease the time taken to enact internationalization plans and can reduce the number of opportunities lost or missed. Finally, prior experience may also provide access to networks and positional advantages in the industry social structure based on prior status, trust, and reputation (Holm, Eriksson, & Johanson, 1996; Johanson & Vahlne, 1990). Positional advantages may allow access to host country resources, such as distribution channels or sourcing supplies, and include market-related knowledge of competition and consumer preferences that help overcome international market entry barriers (e.g., Chen & Hennart, 2002). Thus, managers' experience from their previous careers with internationalization reduces the time and costs associated with first international entry, increasing both firm survival and growth prospects (Hannan, 1998).

Empirical evidence supports the idea that prior managerial experience provides prehistory endowments or routines. For example, in a study of high-technology start-ups, Gong, Baker, and Miner (2004) found that managerial teams selectively imported bundles of routines into the new venture by sharing their prior contextual experiences-that is, situation-specific actions and their resultant outcomes. These researchers also observed that when managerial experiences were dissimilar across operating environments, they were scrutinized carefully before adoption. Thus, when internationalization routines are lacking, managers are likely to import and internalize routines from previous experiences by sharing their contextual experience and its outcomes. In subsequent entries, however, the firm is likely to develop its own repertoire of routines for market entry and to rely less on managerial prehistory experience. Studies have shown that the speed with which a firm develops experience-based knowledge positively influences the subsequent probability of profitability, survival, and growth (Chang, 1995; Delios & Henisz, 2003; Henisz & Delios, 2001; Vermeulen & Barkema, 2001; Zahra et al., 2000).

In short, theoretical reasoning and empirical evidence suggest that firms' initial attempt to enter new foreign markets may be aided by managers' prior experience with internationalization. When prior individual experiences are shared within the firm, they can reduce the time and expense of learning. Managers' prior experience also provides the firm positional advantages that may be leveraged to sustain and grow operations.

> Proposition 1b: Managerial experience with internationalization gained from previous employment will moderate the outcomes of international

ization such that it decreases the negative effects of internationalization on the probability of firm survival.

Proposition 2b: Managerial experience with internationalization gained from previous employment will moderate the outcomes of internationalization such that it increases the positive effects of internationalization on the probability of firm growth.

Moderating Effects of Resource Fungibility

As suggested by research on the liabilities of small size and newness, a firm fails when resources are inadequate to meet the demands of its environment (Schussler, 1990). For the most part, discussions of the role of resources in organizational survival and growth focus on the quantity and quality of a firm's endowments. Some argue that high-quality resources allow increased investments in capability development, enhancing prospects for survival and growth (Helfat, 1997). In the majority of prior theorizing, researchers have weighed in with the view that resource abundance enhances prospects for survival and growth (Hannan, 1998; Stinchcombe, 1965), although some have argued that, at times, resources can provide constraints and foster problems for firms (Autio et al., 2000; Hannan et al., 1998; Mosakowski, 2002). Our focus is not on the effects of resource abundance or scarcity. Rather, we examine how the adaptability of the resources possessed moderates the impact of internationalization on a new venture's survival and growth.

In this section we present arguments suggesting that resource fungibility (i.e., the extent to which resources may be deployed for alternative uses at a low cost) moderates the effects of the initiation of internationalization activity on young firms' survival and growth. We make a critical distinction between the quantity and the fungibility of a firm's resource endowments. We propose that, irrespective of the quantity of resources, the ability to shift resources is important because it bestows discretion in executing strategies and flexibility in developing new routines and capabilities. This view is consistent with George (2005), who has argued that slack increases firms' ability to take on risks and experiment with new solutions. Supporting this

view, his longitudinal study of resource slack in privately held firms shows that high-discretionary resources are positively related to firm performance. Other studies have also shown that the ability of organizations to shift resources is important to their responsiveness to environmental pressures (e.g., Kraatz & Zajac, 2001). We propose that managerial discretion is, in part, an outcome of the fungibility of the underlying resource endowments.

Resource fungibility is important to the outcomes of early internationalization for two main reasons. First, the ability to shift resources to alternate uses, including even the physical transfer of the endowment itself, allows managers to adapt existing practices to the foreign market. Entry into international markets is fraught with uncertainty and necessitates trialand-error learning-that is, executing various routines until successful outcomes are discovered. The ability to shift resources among alternate uses increases the adaptability of firm strategies and reduces the cost of failed trial attempts. Second, resource fungibility provides the flexibility to create new capabilities with existing resources, for it allows sharing resources across multiple organizational functions. Thus, fungibility promotes survival and growth during internationalization in resourceconstrained firms by allowing firms to share or reallocate resources so as to generate new routines.

Developing capabilities for the internationalization of a firm's business is costly. While extensive endowments permit large investments in capabilities, failure to make such investments at the outset may have irreversible negative consequences for survival (Hannan, 1998). However, start-ups and privately held firms tend to be undercapitalized and face resource constraints (George, 2005; Holtz-Eakin & Joulfaian, 1994). In cases of undercapitalization, resource fungibility assumes added importance, because it lowers the costs of failed experiments in internationalization routines and allows firms to leverage their limited resources across multiple capabilities. Fungible resources also enable the exploitation of growth opportunities (Alvarez & Busenitz, 2001), in that they allow a young firm to pursue multiple new paths at comparatively lower cost. Thus, resource fungibility provides managers greater degrees of freedom to experiment and capitalize on emergent growth opportunities in the foreign market, and it reduces the costs of capability development that threaten short-term survival. Therefore, as Figure 1 suggests, we posit the following.

> Proposition 1c: Fungibility of the firm's resource endowments will moderate the outcomes of its internationalization process such that it decreases the negative effects of internationalization on the probability of firm survival.

> Proposition 2c: Fungibility of the firm's resource endowments will moderate the outcomes of its internationalization process such that it increases the positive effects of internationalization on the probability of firm growth.

DISCUSSION AND IMPLICATIONS

In this article we advance a capability-based view of the effects of internationalizing on firm survival and growth. The increasing importance of internationalization as a strategic tool, even among young firms (McDougall et al., 1994; Oviatt & McDougall, 1994), has prompted us to develop a framework that contributes to the emerging literature in this area.

Our framework clarifies the normative implications of initiating early international operations. Consistent with recent work in this area (e.g., Autio et al., 2000; Zahra et al., 2000), we view internationalization as a strategic choice for young firms. Extending the process and new venture frameworks of internationalization, we focus not on the rationale for internationalization but, rather, on the likely effects of this choice, particularly the effects of early internationalization on organizational processes. Our perspective extends the literature on firm internationalization, which has treated internationalization as an outcome of organizational processes and has largely neglected the study of the reverse effect—that is, how internationalization impacts the firm. Still, our model is not holistic, in that does not account for all factors affecting outcomes of internationalization; such a model would be exceedingly complex (Zaheer & Mosakowski, 1997). Instead, to move the discussion forward, we incorporate key contingencies in the emerging entrepreneurship dynamics literature: the effects of age, managerial experience, and resource fungibility (Figure 1). We now discuss the implications of our model for theory development in the dynamic capabilities literature.

Early Internationalization and Dynamic Capabilities

A central issue in the dynamic capabilities literature is the relationship between capabilities and performance. Do firm capabilities enhance firm performance and, if so, does this performance effect persist over time? Consistent with existing literature, in this article we view capabilities as arising from intricate configurations of resources and operating routines (Helfat & Peteraf, 2003; Teece et al., 1997). Our arguments articulate how internationalization affects this configuration and, consequently, clarify its implications for a firm's survival and growth. By doing so, we make three important contributions to the capabilities literature.

First, we challenge the assumption that building dynamic capabilities has uniformly positive consequences for firm performance. For example, Teece et al. (1997) note that dynamic capabilities create value by supporting the firm's core strategies, and these capabilities are continually reconfigured to meet changing environmental conditions, allowing the firm to retain a competitive advantage over time. Although some prior research has conceptually challenged the assumption that dynamic capabilities inevitably confer sustained performance (Eisenhardt & Martin, 2000; Winter, 2003), such challenges are rare and undeveloped in the literature. Therefore, we have argued that, during the early stages of internationalization, new ventures develop capabilities that may simultaneously decrease the probability of survival while increasing the probability of growth. This argument further refines the ongoing dialogue in the literature by differentiating the growth and survival aspects of organizational performance, both of which are central to entrepreneurship research.

Second, we identify important contingent factors that moderate the relationship between capability development and survival and growth. We propose that, at first internationalization, new ventures often enjoy learning advantages that spur growth and provide lower long-term cost of capability development. Yet these ventures may still be unable to bear the initial costs associated with entry, threatening their very survival. We propose that, to some degree, firms can substitute for lack of organizational experience with managerial experience. By importing routines from prior employment, managers who have prior international experience can reduce the costs of internationalization for younger firms. Although the dynamic capabilities literature has focused on organizational experience and capability development, only in limited research have scholars explored managers' experience and the formation of organizational capabilities (King & Tucci, 2002).

Third, we contribute to the capabilities literature by suggesting that resource fungibility is important to capability development. We posit that highly fungible firm resources can buffer costs and facilitate the development of capabilities to pursue new market entry opportunities. The dynamic capabilities literature has drawn attention to resource reconfiguration as a means to shift between capabilities or to change existing capabilities (e.g., Karim & Mitchell, 2000; Winter, 2003), but, until now, the fugibility dimension of resources has not received attention. Fungibility is important for gaining and maintaining strategic flexibility.

All three contingencies articulated in our model (firm age, prior managerial experience, and resource fungibility) hold important implications for theory development in the capabilities literature. For instance, future empirical research might explore the pattern of capability development and deployment as moderated by the presence of fungible resources in young or old firms. Other related questions emerge: How does imprinting through internationalization manifest itself in capability development or redeployment? Does imprinting provide persistent advantages to the firm? Does resource fungibility increase the speed of adaptation, or does it alter the timing of capability development and deployment?

Implications for Internationalization Theories

Even though the process of internationalization is a widely researched topic, important gaps remain concerning learning and experience accumulation, as well as the firm-level outcomes of this process (Werner, 2002). Existing managerial frameworks of internationalization emphasize experience, learning, and knowledge accumulation as either constraining or enabling internationalization.

The internationalization process theory exemplifies the constraining influence of experience accumulation, depicting internationalization as an interplay among foreign market exposure, learning, and capability development (Johanson & Vahlne, 1977, 1990). Rooted in the behavioral theory of the firm, the process theory holds that firms typically experience a gradual accumulation of international experience, which enhances the firm's awareness of international opportunities, its ability to pursue such opportunities, and the willingness of its management to commit further resources (Penrose, 1959). Key assumptions are that firms initiate their foreign activities with no foreign market or foreign organizing knowledge and that this knowledge may be acquired only through operating in foreign markets (Barkema et al., 1996; Delios & Henisz, 2003; Johanson & Vahlne, 1977). Because managers are risk averse, venturing across borders starts late, evolving slowly and cautiously thereafter. Causal influences on survival are not explicitly discussed in the process theory, but some proponents imply that later initiation of the internationalization process is associated with greater chances of organizational survival (Eriksson et al., 1997). Despite the power of this model for explaining the typical incremental process of international expansion, managerial agency is somewhat absent from the picture.

A complementary perspective on the internationalization process is provided by the new venture internationalization framework, which emphasizes the enabling qualities of personaland team-level knowledge, experience, and learning on early internationalization (Oviatt & McDougall, 1994). This framework complements process theory by introducing the opportunityseeking entrepreneur as the key driver of early internationalization. The insight is that individual knowledge can substitute for firm-level experience, to some extent. Thus, the new venture internationalization framework highlights entrepreneurs' capacities and experiences that allow them to successfully pursue an early, proactive mode of internationalization. An early initiation of the internationalization process, therefore, is depicted as a necessary strategic move to ensure opportunities for organizational growth. Yet, despite its useful insight into the entrepreneurial potential embedded in the founding team, this model offers little guidance into the limitations or constraints the young firm faces.

In this article we have sought to reconcile the process and new venture arguments while making important contributions to theories of internationalization. First, we distinguish between growth and survival as outcomes of young firms' internationalization. Whereas the process theory emphasizes the firm's drive to ensure survival, the new venture framework focuses on internationalization as an enabling mechanism for growth. Yet neither perspective explicitly considers the implications of internationalization for firm-level outcomes. We have proposed that, in its early stages, internationalization threatens firm survival because of the cost of developing necessary new capabilities and because of the lack of positional advantages. However, we also posit that the capabilities developed during the process create an organizational imprint for adaptability and growth.

Second, we bring the two perspectives into relief by highlighting the complex relationships between levels of experience (manager versus organization) and their separate implications for internationalization. Researchers have recognized the need to disentangle the relationship among organizational experience, survival, and growth (Barkema et al., 1996; Delios & Beamish, 2001; Delios & Henisz, 2003). We reconcile some contradictions by explaining that although positional liabilities make the probability of survival especially low for young internationalizing firms, early capability development and imprinting create a context for rapid growth. We distinguish also between managers' prior international experience and their joint experience in the focal firm by arguing that, in the absence of joint organizational experience, managers use routines that they developed in other settings, thereby reducing the time and cost of capability development.

Implications for Managerial Practice

The process theory of internationalization stresses that firms are behaviorally intertial and do not expand across borders until pushed by external circumstances or pulled by customer demands. The new venture internationalization framework contends that young firms may see themselves as competent and choose to pursue international opportunities; however, the framework is silent about whether such a choice is warranted. Empirical results regarding performance implications of early internationalization have been mixed (e.g., Bloodgood, Sapienza, & Almeida, 1996; Zahra & George, 2002).

The descriptive nature of the process and new venture theories of internationalization limits their usefulness to entrepreneurs. Our model suggests that, ceteris paribus, internationalization increases risks of failure but also increases opportunities for significant growth. For entrepreneurs whose goal is to create a venture that provides long-term self-employment, early internationalization is a risky choice. Of course, as we discuss below, internationalization may at times be the best choice to secure firm survival. We propose that internationalization improves the chances of building a venture of great potential. For some entrepreneurs, failing in one or many ventures before creating the "big winner" is not an impediment and may actually provide experience that improves the odds of future success and wealth.

Key contingencies alter the expected payoff from new venture internationalization. We suggest that if survival concerns dominate growth concerns, entrepreneurs should delay internationalization until they have developed fungible resources to buffer the costs of internationalization. However, if growth goals dominate, or if the opportunity window is short, early internationalization may be a risky but rational choice. Firms that are older when they internationalize (perhaps a new market has opened up or a new technology makes expansion feasible) may be at a learning disadvantage, in that the costs of capability development may be higher. Older entrants need to find ways to overcome the structural inertia and rigidities that could hamper their ability to learn about new markets and to respond with changes to routines and resource configurations. We propose also that venture growth and survival prospects may be enhanced by the judicious selection of managers with prior international experience and by the assemblage and use of fungible resources.

Boundary Conditions of our Model

To examine the implications of our model, researchers should recognize its boundaries and control for critical factors not considered in it. Critical environmental variables that might influence the effects of internationalization on new venture survival and growth include country and industry conditions. For example, general economic conditions and institutional infrastructure might significantly influence prospects for survival and/or growth (Busenitz, Gomez, & Spencer, 2000). Countries seeking to encourage foreign investment give entrants special incentives and guarantees that can significantly mitigate some threats to new venture survival or can promote growth. Conversely, certain tariffs, laws, or cultural customs may preclude an entering company from realizing growth. The home country of the internationalizing venture may also influence the prospects of the venture, altering the relationships suggested in Figure 1. For example, in countries with small domestic markets, internationalization may be necessary for long-term survival for firms needing to achieve size economies in order to survive.

It is important also for future researchers to distinguish between short- and long-term effects of early internationalization on survival and growth. Our propositions reflect the potential short-term impact of internationalization and the development of dynamic capabilities. The first internationalization event generates the most substantive change to existing routines and resource allocations. The disruptiveness of entry decreases with experience (Henderson, 1999).

Our dependent variables (survival and growth) are also likely to influence each other over time. For instance, a secondary effect of enhancing short-term growth prospects may be to improve the probability of long-term survivalthat is, internationalization at time of first entry (t_0) may decrease the probability of survival at t_0 , but may simultaneously increase the probability of subsequent survival $(t_{+1} \text{ to } t_{+n})$ relative to those firms not internationalizing. The relationship between survival and growth, and their interplay over time, are especially important areas for research. The studies by Romanelli (1989), Delmar et al. (2003), and Dobrev and Carroll (2003), among others, hint at the rich complexity among the fundamental organizational constructs of size, age, and growth, a complexity that requires further theoretical and empirical explication.

We have suggested that managerial experience and resource fungibility heighten the predicted positive effects of internationalization, but industry factors are likely to play a significant role as well. Compared to "domestic" industries, where little advantage accrues from cross-border sharing of activities, "global" industries favor firms positioned in several countries simultaneously because of scale, scope, and standardization economies (Barkema & Vermeulen, 1998; Birkinshaw, 2000). Thus, the competitive dynamics of industries may also moderate the effects of internationalization on performance. Most of the new venture internationalization research has been conducted in hightechnology industries (Autio et al., 2000; McDougall et al., 1994; Zahra et al., 2000). To extend this work, researchers should examine whether the rate of technological obsolescence significantly influences the effects of internationalization on survival and growth.

Finally, the strategic congruence between the venture and the target country may also be critical. When foreign markets entered are cognitively or culturally distant from the firm's home market, survival prospects are likely lower than usual, and growth prospects are limited as well (Delios & Henisz, 2003; Mitchell et al., 1994). Geographic distance is also important to the extent that the costs of entering foreign markets are significant. Relative to entering nearby countries, entering distant foreign markets is likely to strain resources and coordination routines and to increase threats to survival. Although our model is intended to identify what might happen for new ventures across a variety of situations, it excludes exogenous factors such as host country and industry dynamics. Researchers interested in testing the propositions presented in this paper should keep these factors in mind as they design their empirical tests.

Suggestions for Future Research

This article forwards testable propositions that advance entrepreneurship theory in the context of internationalizing young firms. Although some evidence exists regarding the effects of internationalization on growth and profitability (e.g., Autio et al., 2000; Bloodgood et al., 1996; Zahra et al., 2000), such results have been subject to issues of survival bias. We highlight the need for longitudinal studies that track the survival rates of internationalizing young firms. A recent review (Zahra, 2005) shows that little research has compared the survival rates of new ventures that internationalize their operations to those that do not. Future studies may include matched-pairs panel data that allow a comparison of survival rates for internationalizing and comparable noninternationalizing young firms.

Several promising avenues for future research are apparent. We encourage researchers to consider how, in some circumstances, the development and redeployment of resources and capabilities may actually have negative implications for value creation. Further, the boundary conditions highlighted above indicate many fruitful areas for extension. For example, how do industry characteristics, cultural and geographic distance, and motives affect the relationships suggested in the model? Our focus on knowledge also suggests that greater attention should be given to the different relationships between internationalization and the dimensions of knowledge (e.g., related versus unrelated knowledge, foreign market versus organizing knowledge, managerial versus entrepreneurial knowledge, and radical versus incremental learning). Understanding these relationships would contribute to theory in both the knowledge management and new firm internationalization arenas.

Our arguments throughout this article have highlighted the importance of capability building as a major driver of new ventures' internationalization and subsequent survival. Institutional forces might drive firms' strategic choices (Zucker, 1997), including internationalization. With the globalization of the world economy, being part of the international arena has become a norm, one that new ventures cannot afford to overlook (Zucker, 1997). In some industries, new ventures might have to internationalize to achieve market credibility (Meyer & Rowan, 1977) and to reduce the liabilities of newness that can undermine their survival. Future research would benefit from an exploration of the coercive, normative, and mimetic institutional forces (DiMaggio & Powell, 1983) that can shape new ventures' internationalization. These institutional forces may also moderate the relationship between internationalization and survival depicted in Figure 1. Understanding these moderating effects can enrich future theory building in this area and provide guidance to managers as they chart their companies' international strategies.

Examining the influence of institutional forces on new ventures' internationalization draws attention to the importance of studying the rich setting in which new ventures compete. Exchange theorists (e.g., Emerson, 1976) have highlighted the importance of social structures, both micro and macro, in determining the differential powers of actors (Cook & Whitmeyer, 1992). Power often translates into differential market positions that can buffer new ventures against failure. This power is gained from what new ventures do and the resources they control, including the social capital they and their managers have amassed. We have already highlighted new venture managers' experience as a moderator of the relationship between internationalization and survival. Investigating how social exchanges help new ventures gain credibility, obtain resources, and enhance the probability of their survival would also be enlightening.

Burt (2004) suggests that "better connected" firms will outperform others. An assumption of our model is that internationalizing firms (especially new or young firms) can and should use the prior international contacts of managers to mitigate survival threats and to realize growth opportunities. Combined with our model, Burt's theory suggests that young internationalizing firms would benefit most from adding managers whose prior experience and contacts were nonredundant with those in the focal firm. They should be nonredundant in two ways: in terms of views held (e.g., managers in different functional areas hold different views) and in terms of having connections to different sets of third parties.

Burt (2004) also points out that such diversity can disrupt coordination but is quite beneficial when communication is effective; thus, the benefits of nonredundancy would be especially great in young firms who, as we mentioned in our learning advantages of newness arguments, can communicate effectively because they have yet to develop significant functional differentiation. An additional advantage of building managerial teams with less "constrained" networks, according to Burt (1999), is that managers in such teams can make better judgments based on "gossip" (i.e., third-party assessments) than teams whose managers have only strong thirdparty connections. In short, our model implies that internationalizing ventures can enhance their competitiveness by strategically choosing new members whose networks bridge key structural holes.

Our model also has implications for the development of competitive advantage. Received theories on internationalization have tended to attribute the benefits of internationalization mainly to market expansion and positional advantages. Our model suggests that internationalization may also boost the firm's dynamic capabilities, thereby making it more nimble and dynamic. Thus, the effects of internationalization on firm competitive ability may be more varied than hitherto recognized. Additional theoretical work is required to create a comprehensive understanding of the sources and mechanisms of "internationalization competitive advantage."

Conclusion

Recent research has documented the rapid internationalization of new firms in the pursuit of survival and growth. This article improves our understanding of this phenomenon, contributing to the entrepreneurship, internationalization, and capability development literature. The paper forwards a model of the direct effects of internationalization on new ventures' survival and growth prospects, as well as the moderating effects of age, managerial experience, and resource fungibility. Substantial promise exists for research at the nexus of entrepreneurship, internationalization, and capability development. This article provides a starting point for such theoretical refinement and advancement.

REFERENCES

- Ahuja, G., & Lampert, C. 2001. Entrepreneurship in the large corporation: A longitudinal study of how established firms create breakthrough inventions. *Strategic Man*agement Journal, 22: 521–543.
- Alvarez, S., & Busenitz, L. 2001. The entrepreneurship of resource-based theory. *Journal of Management*, 27: 755– 775.
- Anand, J., & Delios, A. 2002. Absolute and relative resources as determinants of international expansion. *Strategic Management Journal*, 23: 119–134.
- Autio, E., Sapienza, H. J., & Almeida, J. G. 2000. Effects of age at entry, knowledge intensity, and imitability on international growth. *Academy of Management Journal*, 43: 909–924.
- Barkema, H. G., Bell, J. H., & Pennings, J. M. 1996. Foreign

entry, cultural barriers and learning. *Strategic Management Journal*, 17: 151–166.

- Barkema, H. G., Shenkar, O., Vermeulen, F., & Bell, J. H. J. 1997. Working abroad, working with others: How firms learn to operate international joint ventures. *Academy* of *Management Journal*, 40: 426–442.
- Barkema, H. G., & Vermeulen, F. 1998. International expansion through start-up or acquisition: A learning perspective. Academy of Management Journal, 41: 7–26.
- Bettis, R. A., & Prahalad, C. K. 1995. The dominant logic: A retrospective and extension. *Strategic Management Journal*, 16: 5–14.
- Birkinshaw, J. 2000. Entrepreneurship in the global firm. Thousand Oaks, CA: Sage.
- Bloodgood, J., Sapienza, H. J., & Almeida, J. G. 1996. The internationalization of new high-potential U.S. ventures: Antecedents and outcomes. *Entrepreneurship Theory & Practice*, 20(4): 61–76.
- Brush, C. 1992. Factors motivating small firms to internationalize: The effect of firm age. Unpublished doctoral dissertation, Boston University.
- Burt, R. S. 1999. Entrepreneurs, distrust, and third parties. In L. Thompson, J. Levine, & D. Messick (Eds.), Shared cognition in organizations: The management of knowledge: 213–244. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Burt, R. S. 2004. Structural holes and good ideas. American Journal of Sociology, 110: 349–399.
- Busenitz, L. W., Gomez, C., & Spencer, J. W. 2000. Country institutional profiles: Unlocking entrepreneurial phenomena. Academy of Management Journal, 43: 994–1003.
- Chang, S.-J. 1995. International expansion strategy of Japanese firms: Capability building through sequential entry. Academy of Management Journal, 38: 383–407.
- Chen, S., & Hennart, J.-F. 2002. Japanese investors' choice of joint ventures versus wholly-owned subsidiaries in the US: The role of market barriers and capabilities. *Journal* of International Business Studies, 33: 1–18.
- Cohen, W., & Levinthal, D. 1990. Absorptive capacity: A new perspective on learning and innovation. Administrative Science Quarterly, 35: 128–152.
- Cook, K. S., & Whitmeyer, J. M. 1992. Two approaches to social structure: Exchange theory and network analysis. *Annual Review of Sociology*, 18: 109–127.
- Cyert, R. M., & March, J. G. 1963. A behavioral theory of the firm. Englewood Cliffs, NJ: Prentice-Hall.
- Delios, A., & Beamish, P. W. 2001. Survival and profitability: The roles of experience and intangible assets in foreign subsidiary performance. Academy of Management Journal, 44: 1028–1038.
- Delios, A., & Henisz, W. 2003. Political hazards, experience, and sequential entry strategies: The international expansion of Japanese firms, 1980–1998. Strategic Management Journal, 24: 1153–1164.
- Delmar, F., Davidsson, P., & Gartner, W. B. 2003. Arriving at the high-growth firm. *Journal of Business Venturing*, 18: 189–216.

- DiMaggio, P., & Powell, W. 1983. The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48: 147–160.
- Dobrev, S. D., & Carroll, G. R. 2003. Size (and competition) among organizations: Modeling scale-based selection among automobile producers in four major countries, 1885–1981. Strategic Management Journal, 24: 541–558.
- Dunning, J. H. 1988. The eclectic paradigm of international production: A restatement and some possible extensions. *Journal of International Business Studies*, 19: 1–31.
- Eisenhardt, K., & Martin, J. 2000. Dynamic capabilities: What are they? Strategic Management Journal, 21: 1105–1121.
- Emerson, R. M. 1976. Social exchange theory. Annual Review of Sociology, 2: 335–362.
- Eriksson, K., Johanson, J., Majkgård, A., & Sharma, D. 1997. Experiential knowledge and cost in the internationalization process. *Journal of International Business Studies*, 28: 337–360.
- Erramilli, K. M. 1991. The experience factor in foreign market entry behaviour of service firms. *Journal of International Business Studies*, 22: 479–501.
- Gavetti, G., & Levinthal, D. 2000. Looking forward and looking backward: Cognitive and experiential search. Administrative Science Quarterly, 45: 113–137.
- George, G. 2005. Slack resources and the performance of privately held firms. *Academy of Management Journal*, 48: 661–676.
- Gong, Y., Baker, T., & Miner, A. S. 2004. Where do organizational routines come from in new ventures? Paper presented at the annual meeting of the Academy of Management, New Orleans.
- Hamel, G., & Prahalad, C. K. 1993. Strategy as stretch and leverage. *Harvard Business Review*, 71(2): 75–84.
- Hannan, M. 1998. Rethinking age dependence in organizational mortality: Logical formalizations. *American Journal of Sociology*, 104: 126–164.
- Hannan, M., Carroll, G., Dobrev, S., Han, J., & Torres, J. C. 1998. Age dependence and organizational mortality revisited. Part 1: European and American automobile industries 1885–1981. *European Sociological Review*, 14: 302–313.
- Helfat, C. E. 1997. Know-how and asset complementarity and dynamic capability accumulation: The case of R&D. Strategic Management Journal, 18: 339–350.
- Helfat, C. E., & Lieberman, M. B. 2002. The birth of capabilities: Market entry and the importance of pre-history. *Industrial and Corporate Change*, 11: 725–760.
- Helfat, C. E., & Peteraf, M. 2003. The dynamic resource-based view: Capability lifecycles. *Strategic Management Journal*, 24: 997–1010.
- Henderson, A. D. 1999. Firm strategy and age dependence: A contingent view of the liabilities of newness, adolescence, and obsolescence. *Administrative Science Quarterly*, 44: 281–314.
- Henisz, W., & Delios, A. 2001. Uncertainty, imitation, and

plant location: Japanese multinational corporations 1990–1996. Administrative Science Quarterly, 46: 443– 475.

- Hitt, M. A., Hoskisson, R. E., & Kim, H. 1997. International diversification: Effects on innovation and firm performance in product-diversified firms. *Academy of Management Journal*, 40: 787–798.
- Holm, B. D., Eriksson, K., & Johanson, J. 1996. Business networks and cooperation in international business relationships. *Journal of International Business Studies*, 27: 1033–1053.
- Holtz-Eakin, D., & Joulfaian, D. 1994. Sticking it out: Entrepreneurial survival and liquidity constraints. *Journal of Political Economy*, 102: 53–75.
- Huber, G. P. 1991. Organizational learning: The contributing processes and the literatures. Organization Science, 2: 88–115.
- Johanson, J., & Vahlne, J.-E. 1977. The internationalization process of the firm—A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8: 23–32.
- Johanson, J., & Vahlne, J.-E. 1990. The mechanism of internationalization. *International Marketing Review*, 7(4): 11– 24.
- Karim S., & Mitchell, W. 2000. Path-dependent and pathbreaking change: Reconfiguring business resources following acquisitions in the US medical sector, 1978–1995. *Strategic Management Journal*, 21: 1061–1081.
- King, A. A., & Tucci, C. L. 2002. Incumbent entry into new market niches: The role of experience and managerial choice in the creation of dynamic capabilities. *Management Science*, 48: 171–186.
- Kraatz, M., & Zajac, E. 2001. How organizational resources affect strategic change and performance in turbulent environments: Theory and evidence. Organization Science, 12: 632–657.
- Lu, J., & Beamish, P. 2001. The internationalization and performance of SMEs. Strategic Management Journal, 22: 565–586.
- Lumpkin, G. T., & Dess, G. G. 1996. Clarifying the entrepreneurial orientation construct and linking it to performance. Academy of Management Review, 21: 135–172.
- Luo, Y., & Peng, M. W. 1999. Learning to compete in a transition economy: Experience, environment, and performance. *Journal of International Business Studies*, 30: 269–295.
- Markman, G. D., & Gartner, W. B. 2002. Is extraordinary growth profitable? A study of Inc. 500 high-growth companies. *Entrepreneurship Theory & Practice*, 27: 65–75.
- Martin, X., Mitchell, W., & Swaminathan, A. 1995. Recreating and extending Japanese automobile buyer-supplier links in North America. *Strategic Management Journal*, 16: 589–619.
- Martin, X., Swaminathan, A., & Mitchell, W. 1998. Organizational evolution in the inter-organizational environment: Incentives and constraints on international ex-

pansion strategy. Administrative Science Quarterly, 43: 566–601.

- McDougall, P. P., Shane, S., & Oviatt, B. M. 1994. Explaining the formation of international new ventures: The limits of theories from international business research. *Journal* of Business Venturing, 9: 469–487.
- Meyer, J. W., & Rowan, B. 1977. Institutionalized organizations: Formal structure as myth and ceremony. *Ameri*can Journal of Sociology, 83: 340–363.
- Miller, D., & Friesen, P. H. 1984. A longitudinal study of the corporate life cycle. *Management Science*, 30: 1161–1183.
- Mitchell, W., Shaver, J. M., & Yeung, B. 1994. Foreign entrant survival and foreign market share: Canadian companies' experience in United States medical sector markets. *Strategic Management Journal*, 15: 555–567.
- Mosakowski, E. 2002. Overcoming resource disadvantages in entrepreneurial firms: When less is more. In M. A. Hitt, R. D. Ireland, J. M. Camp, & D. L. Sexton (Eds.), *Strategic entrepreneurship: Creating a new mindset:* 106–126. Oxford: Blackwell.
- Nelson, R. R., & Winter, S. G. 1982. An evolutionary theory of economic change. Cambridge, MA: Belknap Press of Harvard University Press.
- Oviatt, B. M., & McDougall, P. P. 1994. Toward a theory of international new ventures. *Journal of International Business Studies*, 25: 45–64.
- Pakes, A., & Ericson, R. 1998. Empirical implications of alternative models of firm dynamics. *Journal of Economic Theory*, 79: 1–45.
- Penrose, E. 1959. The theory of the growth of the firm. New York: Wiley.
- Romanelli, E. 1989. Environments and strategies of organization start-up: Effects on early survival. Administrative Science Quarterly, 34: 369–387.
- Rosenbloom, R. S. 2000. Leadership, capabilities, and technological change: The transformation of NCR in the electronic era. *Strategic Management Journal*, 21: 1083– 1103.
- Schussler, J. B. R. 1990. Organizational mortality: Liabilities of new-firm adolescence. *Administrative Science Quarterly*, 35: 530–547.
- Singh, J. V., Tucker, D. J., & House, R. J. 1986. Organizational legitimacy and the liability of newness. *Administrative Science Quarterly*, 31: 171–193.
- Stinchcombe, A. L. 1965. Social structure and organizations. In J. G. March (Ed.), *Handbook of organizations:* 142–193. Chicago: Rand McNally.
- Teece, D. J., Pisano, G., & Shuen, A. 1997. Dynamic capabilities and strategic management. *Strategic Management Journal*, 18: 509–533.
- Vermeulen, F., & Barkema, H. 2001. Learning through acquisitions. Academy of Management Journal, 44: 457–476.
- Vernon, R. 1979. The product cycle hypothesis in a new international environment. Oxford Bulletin of Economics and Statistics, 4: 255–267.

- Werner, S. 2002. Recent developments in international management research. Journal of Management, 28: 277-305.
- Westhead, P., Wright, M., & Ucbasaran, D. 2001. The internationalization of new and small firms: A resource-based view. Journal of Business Venturing, 16: 333-358.
- Winter, S. G. 2003. Understanding dynamic capabilities. Strategic Management Journal, 24: 991-996.
- Yli-Renko, H., Autio E., & Sapienza H. J. 2001. Social capital, knowledge acquisition, and knowledge exploitation in young technology-based firms. Strategic Management Journal, 22: 587-613.
- Zaheer, S., & Mosakowski, E. 1997. The dynamics of the liability of foreignness: A global study of survival in financial services. Strategic Management Journal, 18: 439-464.
- Zahra, S. 2005. A theory of international new ventures: A

decade of research. Journal of International Business Studies, 36: 20-28.

- Zahra, S., & George, G. 2002. International entrepreneurship: The current status of the field and future research agenda. In M. Hitt, D. Ireland, D. Sexton, & M. Camp (Eds.), Strategic entrepreneurship: Creating an integrated mindset: 255–288. Oxford: Blackwell.
- Zahra, S., Ireland, R., & Hitt, M. A. 2000. International expansion by new venture firms: International diversity, mode of market entry, technological learning, and performance. Academy of Management Journal, 43: 925-950.
- Zott, C. 2003. Dynamic capabilities and the emergence of intraindustry differential firm performance: Insights from a simulation study. Strategic Management Journal, 24: 97-125.
- Zucker, L. G. 1997. The role of institutionalization in cultural persistence. American Sociological Review, 42: 726-743.

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