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**International Entrepreneurship and the Theory of the
(Long-Lived) International Firm:
A Capabilities Perspective***

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International Entrepreneurship and the Theory of the (Long-Lived) International Firm: A Capabilities Perspective

Abstract

This paper expands on the Oviatt-McDougall framework of sustainable international ventures. It does by relating the elements of the framework to existing scholarship on the multinational enterprise (MNE), a category that encompasses new ventures supported by foreign direct investment (labeled here as FDINVs). The paper then incorporates entrepreneurship and capabilities into MNE theory and applies them to the FDINV. Strong dynamic capabilities coupled with good strategy work together to generate and sustain superior enterprise performance in fast-moving global environments. The resulting framework is used to revisit key questions in MNE/FDINV research such as the timing and mode of foreign direct investment.

INTRODUCTION

In recent years, a great deal of work has been done on the characteristics, strategies, and performance of firms that internationalize their activities early in their existence—companies that are “born global.” At the same time, the global business environment has been transformed by faster innovation and virtual integration. In today’s global economy, the competitive advantage of the business firm appears to rest on the timely development and deployment of intangible assets, inter-firm relationships, and human capital, placing a premium on the ability of companies to become and remain entrepreneurial and agile at home and abroad.

International entrepreneurship (IE) is the term that has come to be used in the international business literature to describe firms that are pursuing innovative activities across borders, regardless of age or size (Oviatt and McDougall, 2005). Although the bulk of empirical work in this field still focuses on start-ups (Keupp and Gassmann, 2009), the theory to be developed here applies equally to established enterprises and to new ventures, particularly those that have engaged in foreign direct investment. In fact, the point at which an international new

venture becomes a multinational enterprise has not, to our knowledge, been decisively demarcated.

Some of the theory developed in this article will be less relevant to export-only ventures, such as small mobile app vendors, that sell products or services requiring little in the way of localized development or after-sales activity. Such firms may be able to grow indefinitely without investing abroad, but they are probably unusual. Studies (e.g., Hashai and Almor, 2004) show that young firms with an international presence are likely to increase their commitment of resources in offshore markets over time, although, the internationalization events of start-ups do not appear to follow any “typical” sequence (Jones, 1999).¹

The phenomena of greatest interest to be explored are the factors that enable entrepreneurs (and entrepreneurial managers) not only to internationalize their operations but also to build entrepreneurial organizations capable of maintaining competitive advantage for the long term. This paper is therefore, in part, an exploration of what Jones, Coviello, and Tang (2011) call the “Entrepreneurial Internationalization” theme of the IE literature.

Beyond the standard “theory of the firm” issues such as why firms exist and what determines their boundaries, a robust theory of the multinational enterprise (MNE) and the foreign direct-invested new venture (FDINV) should also help to explain how firms select the timing and mode of entry into foreign markets. To be of value to business scholars and

¹ Unlike established MNEs, new ventures may face a trade-off between two types of internationalization because they lack the capabilities to simultaneously expand sales into new markets and invest in offshore resources. Hashai (2011) documented this capabilities-driven trade-off for a group of Israeli high-tech born globals.

managers, an acceptable theory of the firm must also provide insight into the creation and maintenance of competitive advantage.

In order to develop a theory of internationalization, this paper draws on the literature of entrepreneurship and on organizational theories of the firm. It is hoped that by judiciously interweaving existing theories in the fields of IE and international business with the capabilities and entrepreneurship frameworks, a more robust theory of the MNE/FDINV can be delineated.

The paper begins with a review of the “necessary and sufficient elements for sustainable international new ventures” introduced by Oviatt and McDougall (1994, p. 52). It then explores the elements of the framework in more detail by relating them to standard approaches to the theory of the MNE. Next it identifies various shortcomings in these MNE paradigms, particularly in the context of international new ventures; it then tries to amend their deficiencies by employing concepts from the strategic management and entrepreneurship literatures. Finally, the paper explores how the resulting framework informs understanding of the timing and mode of foreign market entry.

THE OVIATT-MCDOUGALL FRAMEWORK

In an early article on international entrepreneurship, Oviatt and McDougall (1994) proposed a framework blending concepts from MNE and strategic management research to account for the existence of durable international new ventures. They presented it as a nested series of “necessary and sufficient elements” (ibid.: 52) that sketched a set of conditions defining a sustainable international new venture (INV). The conditions were drawn from traditional FDI theory and from the strategic management literature. Their framework is a good place to start.

Rather than answering the question “Why do durable international new ventures exist?”, they endeavor to answer the question “Which market transactions support durable international new ventures?” The latter approach is likely to appeal to those of a more practical turn of mind. Their framework consists of four “elements”, each of which serves as a filter. As each filter is applied, the population of all potential market transactions is gradually winnowed down to those that support durable international ventures.

The first filter is “Internalization,” by which Oviatt and McDougall mean a transaction-cost based separation between transactions taking place in markets and those taking place inside firms. For over thirty years, transaction cost analysis has been one of the mainstays of MNE theory. As we discuss in some detail in the following sections, there is a second, capability-related version of “internalization” that also helps one understand the MNE and FDI.

The second filter, “Alternative Governance Structures,” takes the organizations that passed through the first filter and selects those that embed their operations in a network. Oviatt and McDougall’s reasoning is based on the limited resources available to most young enterprises; but networked operations have become increasingly common for firms of all maturities and sizes. These enable MNEs to access additional resources, albeit at a cost. As the Profiting From Innovation framework (Teece, 1986; 2006) explains, an absence of resources is but one reason for an innovating firm to consider an alliance. Moreover, in some cases, the resources involved are too specialized to be outsourced without potential loss of value to the innovator.

The third filter is “Foreign Location Advantage.” It is related to Dunning’s “asset (ownership) advantages” in the eclectic paradigm (Dunning, 1988) and selects firms that have chosen to commit resources across borders, thus becoming international. Oviatt and McDougall

point out that such a move suggests that the expected benefits from entering a foreign market are large enough to offset any disadvantages of foreignness. For this to be so, the firm must generally own valuable resources that it can leverage across multiple locations. The resource they focus on is private (proprietary) know-how. As discussed below, it is our belief that the ownership of intangible assets more generally will indeed bring advantages.

The fourth filter takes the international firms that pass the first three filters and separates them into those which own, and don't own, unique resources (Barney, 1991). According to the framework, it is the owners of unique resources who are likely to develop sustainable competitive advantage. Resources such as proprietary knowledge can remain valuable when they are protected from imitation by intellectual property or by their complexity.

With these four elements, Oviatt and McDougall endeavored to explain the existence of cross-border activity. They also assessed when such activity is likely to be profitable over the long term. In what follows, such matters are explored further.

MAINSTREAM THEORIES OF THE MNE: INTERNALIZATION

The internalization perspective, which can be traced back to Coase (1937), was popularized by Buckley and Casson (1976) and applied so as to advance understanding of the MNE. It has come to dominate much of the MNE literature over the past thirty years. This perspective attempts to explain the reasons for the international scope of the business enterprise by appealing to "market failure" considerations. However, this literature does not address the reasons for differential (and superior) firm performance, which is the primary focus of inquiry in strategic management.

Arguably, there are actually two branches to the internalization approach: (1) internalization that reduces transaction costs and avoids “hold-up” issues; and (2) internalization that facilitates efficient resource transfer and learning, accomplished via superior within-firm technology transfer mechanisms (superior, that is, to market-based contractual approaches).² These two branches can be joined, as in the frameworks of Teece (1982) and Jacobides and Winter (2005). These frameworks show how learning/capabilities and transaction costs considerations together help co-determine the scope of the enterprise.

The first branch of internalization theory was advanced by Buckley and Casson (1976), Teece (1975, 1976, 1981a), Rugman (1981), Dunning (1981), and others. This “school” sees contractual issues and associated market failures as the main reason for internalization. This branch of the theory can be thought of as representing the “governance” theory of internalization, and it examines the relative advantages associated with different entry modes (e.g., exports, licensing, and FDI).³

The second branch to internalization shifts the emphasis from control (e.g., avoiding hold up) to learning (e.g., knowledge creation and transfer), focusing on the common organizational

² Hymer (1976), an important early internalization theorist, argued that firms engaged in FDI for a different reason, namely, to extend monopolistic power to other economies, with concomitant net social losses (Teece, 1981a; Dunning & Pitelis, 2008). However it does not follow that the unique assets of firms give them socially detrimental market power, and offshore expansion may simply maximize the assets’ value-in-use. Furthermore, firm-specific advantages cannot explain FDI, as there are potentially alternative ways to capture their value.

³ As used here, governance structures are arrangements by which a transaction can be managed (governed) to mitigate potential market exchange problems. Governance structures encompass (1) incentive intensity, (2) form of administrative control, and (3) contract law regime (Williamson, 1991).

culture of an integrated enterprise, the ease of coordination inside the firm compared to market-based equivalents, and the appropriability of the benefits of learning. Integration permits more open pathways to learning and to sharing know-how and expertise across borders within the MNE or FDINV. The internalization of transactions eases intellectual property concerns and provides fluid interchange of personnel across borders. Put simply, the MNE is better suited than a plethora of firms using contracts (i.e., market exchange) to orchestrate and leverage assets and capabilities worldwide.⁴

The essence of the MNE in this branch of the literature is less about saving on transaction costs and more about being effective in addressing business opportunities through the development, transfer, and orchestration of differentiated organizational and technological capabilities (Teece, 1976, 1977a). It moves the focus away from industrial structure towards industrial evolution in which FDI conveys and supports the generation of “fresh technological advantages” abroad and at home (Cantwell, 1989, p. 2).⁵

Markets governed by contracts and associated alliances are often less able than well-managed hierarchies to support the creation of a well-functioning global innovation, production, and marketing system (Teece, 1980, 1982). Even if contractual problems were minimal, learning

⁴ The advantages of coordination being conducted inside the firm are embedded in many theories of the firm, e.g., those of Barnard (1938), Hennart (1977, 1982), and Richardson (1972). However, the type of coordination here—coordination that involves orchestrating cospecialized complements and intellectual property—is rather different from what has been featured before.

⁵ Kogut and Zander (1992) developed a knowledge-based theory of the MNE in a similar vein, but they perhaps went too far down this path by failing to include the potential for opportunism and contractual difficulties (i.e., the first branch) in explaining the existence of cross-border activity.

and orchestration functions would still need to be managed. The MNE is a vehicle designed to enable the necessary level of (managerial) coordination over time. Markets do not have goals, they only have methods by which transactions can occur (Sautet 2000, p. 82). Management can set goals and also monitor and measure performance against them.

As noted in Teece (forthcoming), both branches of internalization provide important and relevant insights into the MNE and FDINV. However, it is the first branch that has received the most attention. Cantwell (1989) was early to recognize the need to combine contractual frameworks with a theory of capability development. But the bulk of MNE research in economics and international business have left capabilities considerations underdeveloped. The literature is clear that this neglect has been detrimental (e.g., Birkinshaw & Hood, 1998; Cantwell, 2009; Langlois, 2007).

NETWORKS: A DIGRESSION

The second element in the Oviatt-McDougall framework is the presence of alliances. They posited that international new ventures would be severely resource constrained, and therefore would require alliances to launch themselves across borders. A feature of this pillar of a theory of the MNE or FDINV is that it suggests that MNEs can succeed only when they are able to access the resources of other firms.

It is worth a brief digression to discuss how the networking phenomenon has become pervasive over the past two decades, to the point that it often makes very little sense to think of firms in isolation from their network relationships (Gulati, Nohria, & Zaheer, 2000). The expansion of alliances has made somewhat artificial the distinction between international new

ventures and established MNEs that Oviatt and McDougall saw in 1994. Indeed, just the following year, Dunning (1995) expanded his eclectic paradigm to encompass the importance of what he called “alliance capitalism” as a determinant of MNE investment choices. Network ties have become more common and more important in part because many firms have become more narrowly specialized.

In recent decades, the ease with which outsourcing arrangements can be established has enabled specialization to become more common. As Adam Smith (1776, Book I, Chapter III) noted over 200 years ago, the division of labor (specialization), is limited by the size of the market. Clearly, globalization has expanded the scope of the market and the associated opportunities for specialization. In the past, when services were relatively scarce in one country, domestic firms had an incentive to vertically integrate. However, today, if such services are in competitive supply elsewhere (e.g., semiconductor fabrication capacity available for “rent” in Taiwan from enterprises like TSMC), outsourcing will be embraced (Teece, 1986, 2006).

The prevalence of specialization gives rise in time to an increase in cospecialization. With cospecialization, the value of each asset is a positive function of its use in conjunction with other assets. Cross-border settings frequently present instances of cospecialization, which often (but not always) mandates integrated ownership. With cospecialization, competitive alternatives are nonexistent. Cospecialized assets may be undervalued in isolation because they would be difficult to sell for full value to anyone but an owner of the necessary complement(s). When the market supports only one or two suppliers, assets may go unpriced. For these and related reasons, specialized assets can be hard for competitors to obtain, even when the competitor owns a suitable complementary asset.

The decision about whether to build, buy, or ally to procure the services of a cospecialized complement will depend upon many factors. In addition to traditional transaction costs based on the risk of opportunistic recontracting in the context of an innovating firm, Teece (1986; 2006) identifies (1) relative positioning of other asset owners, (2) cash availability, and (3) whether the asset (and any associated operational capabilities) can be built in the time required to exploit the relevant opportunity.

In a growing number of cases, alliance opportunities with other specialized (but not necessarily cospecialized) complements are facilitated and required by the availability of a platform that supports a business ecosystem. A platform exists when one element of the ecosystem provides common standards and interfaces that permit the elements of the ecosystem to innovate independently while advancing collectively (Robertson & Ulrich, 1998). Thus Google's Android operating system is a platform that allowed companies like Taiwan's HTC to rapidly introduce smartphones with capabilities comparable to Apple's market-leading iPhone. But as HTC's equally rapid decline demonstrates, those relying on platforms must marshal unique capabilities or risk becoming a me-too complement with little profit potential.

Pervasive cospecialization on a global scale can be seen as the new environment for international entrepreneurship. But the existence of global specialization and inter-firm networks is not part of the explanation for the existence of MNEs and FDINVs.

BEYOND INTERNALIZATION: THE ECLECTIC (OLI) PARADIGM

An important extension of MNE theory was John Dunning's "eclectic paradigm" (Dunning, 1981, 1995), which is also reflected in the Oviatt-McDougall framework, although

only partially. Whereas the emphasis in the approach of Buckley and Casson was on industry-specific factors and neoclassical analysis, the eclectic paradigm emphasized firm-level heterogeneity and the interplay of factors favoring internalization and MNE growth. Dunning placed internalization at the end of his three-factor list: ownership-location-internalization (OLI).⁶ His broader set of variables is designed to introduce country factors in order to enhance the explanatory power and richness of internalization theory.

In the OLI model, “location” refers to host country features. Country factors are important to include in any model that seeks to explain the geographic footprint of cross-border enterprises, which was not the goal in Oviatt and McDougall’s 1994 article. Advantages that flow from the business environment in which subsidiaries are located are becoming increasingly important to many MNEs, as noted by many scholars (e.g., Cantwell & Mudambi, 2005; Rugman & Verbeke, 2001).

However, many typical locational advantages such as low-cost labor can also be accessed by rivals with relative ease. Hence, location factors may explain the geographic scope of MNE activity but not the existence of a durable competitive advantage, unless the enterprise has a privileged (non-contestable) relationship with local government, or some other such difficult-to-replicate host-country advantage.

“Ownership” in the OLI framework reflects the importance of the firm’s unique assets, and is similar to the “Profitable Assets” element of the Oviatt-McDougall framework. In order to

⁶ Buckley and Casson seem to accept the importance of elements beyond internalization. They introduced alternative concepts such as flexibility and real options into the internalization theory to better explain the dynamics of international production in light of the emergence of various forms of cross-border cooperation and technological developments (Buckley & Casson, 1998a, 1998b).

offset the (supposed) penalty associated with the extra costs of cross-border complexity (compared to domestic firms that do not have to bother with global scope) and relative lack of local knowledge, the MNE or FDINV must have offsetting superior attributes. At least that has been the view since Stephen Hymer (1976) first articulated it. In reality, foreign brands are today regarded positively in some markets, i.e., there may no longer be a disadvantage to foreignness and MNEs may be preferred as partners and employers over local rivals. Dunning (1993) recognized a plethora of ownership advantages that MNEs and FDINVs are likely to have over host country rivals, such as common (cross-border) governance, operational flexibility, global sourcing of imports, better knowledge of markets, and diversification of risk. The list would also include the firm's network ties and the social capital of its principals (Coviello, 2006), along with its brand and positive reputation.

Resources and capabilities, concepts developed in the strategic management literature during the 1980s, are absent from Dunning's eclectic paradigm. However, in a sympathetic reading of OLI, one could interpret Dunning's ownership factor as a proxy for capabilities—albeit a static one. Indeed, Dunning appears to have begun to incorporate dynamic capabilities into his set of O advantages (see Dunning & Lundan, 2010) just prior to his untimely death. But there is nothing in his eclectic paradigm that explains or utilizes very well firm-level capability advantages.

Elsewhere in the MNE literature there is implied reference to capabilities through the concept of technological accumulation (Cantwell, 1989). However, in a world where the sources of know-how are geographically dispersed (Pisano, Shan, and Teece, 1988), it becomes problematic to rely too much on in-house R&D and associated technological accumulation as the linchpin of competitive advantage. Orchestrating a global portfolio of technological assets, some

inside and some outside the enterprise, is often essential to achieving superior performance (Dunning, 1995; Chesbrough, 2003; Augier & Teece, 2007)⁷ and may be the method by which technology is accumulated and utilized by new ventures and established firms alike.

ENTREPRENEURSHIP

Entrepreneurship is too often left out of theories about how economies function and how enterprises evolve. The mainstream theory of the MNE has been no exception. Most economic theories of the firm, multinational or otherwise, implicitly make the limiting assumption that all opportunities are known. And if they are not known, information costs are all that stand in the way of discovery.

It is perhaps surprising, however, that entrepreneurship was not included as a stand-alone element in the Oviatt-McDougall framework for INVs, although it was addressed in a separate paper the same year by McDougall, Shane, and Oviatt (1994) and has been pursued by other scholars, such as Jones and Coviello (2005). The presence of entrepreneurs is of course implicit in any discussion of start-ups, and must be made explicit for understanding not only the INV but also the MNE.

A standard conception of entrepreneurship (e.g., Shane, 2003) includes (1) the process of discovering and exploiting opportunities, such as a latent demand for which no supply yet exists. Sarasvathy, Dew, Velamuri, and Venkataraman (2003), building on concepts developed by

⁷ Dunning (1995) saw orchestration capabilities as a major subset of Ownership advantages. He referred to these “transaction” advantages with the symbol O_t .

Knight and others, add (2) the recognition and arbitrage of pre-existing but as-yet-unmatched supply and demand, and (3) the creation and exploitation of new opportunities by conceiving of possible future demands and supplies that do not yet exist. The latter requires what Kirzner called “alertness,” which includes “awareness of the ways the human agent can, by imaginative, bold leaps of faith, and determination, in fact create the future for which his present acts are designed” (Kirzner, 1985, p. 56).

Beyond the discovery or creation of opportunity, entrepreneurship also involves the proactive generation of new possibilities (e.g., through research and development), the rational assessment of the resulting opportunities, and the mobilization of resources to address the most promising ones. Entrepreneurship, even in new ventures, can be thought of as a social process that is associated with the top management team. Indeed, it can characterize the whole organization (Foss, Klein, Kor, & Mahoney, 2008). The dynamic capabilities framework, presented in the following section, embraces this possibility too.⁸

Entrepreneurial activity is also implicit in a later version of Oviatt and McDougall’s framework where they define international entrepreneurship as “the discovery, enactment, evaluation, and exploitation of opportunities—across national borders—to create future goods and services” (2005, p. 540). The inclusion of “future” in this definition reflects the fact that entrepreneurs often imagine and create that which does not yet exist.

⁸ Although entrepreneurship was mostly implicit in early exposition of the dynamic capabilities framework (Teece, Pisano, & Shuen, 1997), the entrepreneurial manager has come to be featured more and more prominently (Teece, 2007; Augier & Teece, 2009; Teece 2011).

The essence of cross-border entrepreneurial activity in the MNE is that it (co-)creates markets at home and abroad by shaping demand, launching new products, leveraging resources wherever they may be located, and managing a global supply chain (Pitelis and Teece, 2010). The notion that entrepreneurs must create each market before there are prices and consumer preferences that can lead to economic efficiency dates back to the work of Frank Knight (1921) but was largely eclipsed, particularly in the economics literature, by the later conceptions of Coase (1937), Williamson (1975), and others in which markets, technologies, and prices are simply assumed to exist (Boudreaux & Holcombe, 1989).

Foss, Foss, Klein, and Klein (2007) have incorporated entrepreneurship and transaction cost reasoning into a theory of the firm by positing that a significant reason for the formation of firms in a world of uncertainty is to allow entrepreneurs to experiment with different combinations of heterogeneous capital. Over time, the coordination of these capital assets will render them more and more specific to their use and to each other, making the firm the efficient means of preventing the possibility of a future hold-up by an external owner of one of the assets.

Thus entrepreneurial asset orchestration provides a more complete explanation for the existence of the firm than does transaction cost reasoning alone. And the same logic applies to cross-border activity; FDI occurs because an entrepreneurial manager sees the possibility of satisfying latent demand. Entrepreneurial managers can create entirely new markets in various countries. They aren't simply responding to market failure. They are employing organizational resources to shape demand and stimulate new economic activity. Entrepreneurs are vital to this process because of their ability to form judgments in the face of uncertainty about the conditions in markets that don't yet exist.

Entrepreneurs must also attract investment to support their judgments. This necessarily entails risk for someone, or some entity, deploying capital. Clearly, in order to create markets in any geography, the entrepreneur must organize financial and other resources and harness the requisite complementary skills. A flexible, iterative approach to decision making is required (Alvarez and Barney, 2007). Performing the required tasks takes adaptive leadership; deep knowledge of local markets; and a clear understanding of the technical, physical, and human constraints of the resources at hand.

Market creation (including co-creation within networks and alliances) is a very different process from market-entry mode selection decisions, upon which MNE theory has in recent decades put so much emphasis (e.g., Hennart, 2009; Zahra, Ireland, & Hitt, 2000). The choice of entry mode is typically explained by arguing that markets “fail” under certain conditions, such as where complex know-how transfers are involved. Market creation functions are not generally a response to transaction costs in existing markets. They are more often carried out in pursuit of the vision of a market that has yet to emerge.

The view of the MNE as fundamentally entrepreneurial and market-creating is quite different from the contractual and market failure approaches of internalization scholars (Teece, forthcoming). In the first, dominant branch of internalization theory, discussed earlier, the manager’s primary function is to engage in FDI up to the indifference point where the marginal cost of internal and external activities is equalized (Coase, 1937). Consistent with the second branch of internalization theory, cross-border activity will not take place unless entrepreneurs and entrepreneurial managers learn about internal and external resources in multiple geographies, arbitrage among them, and help create and transfer new ones as needed. Because the market for information/knowledge about new opportunities isn’t well developed, FDINV entrepreneurs and

MNEs can realize benefits by organizing the creation and exploitation of this type of knowledge within a firm (Teece, 1981b; Gans & Stern, 2010). Entrepreneurial MNE managers can orchestrate the firm's assets in order to launch products and support market development. Learning associated with these activities supports the development of organizational capabilities (Sautet, 2000, p.75).

Entrepreneurship is one aspect of dynamic capabilities, to which the next section is devoted. But entrepreneurship cannot, by itself, account for competitive advantage because it omits essential elements of environmental fit and strategy, as well as the need to respond to challenges as well as opportunities.

CAPABILITIES AND MNE SUSTAINABLE ADVANTAGE

The final element in the Oviatt-McDougall framework is the presence of unique resources, which they see as the key to sustainable advantage. While unique resources are one source of advantage, that advantage will not necessarily be long-lived because the competitive environment can change rapidly. For example, many patents can be "invented around" at modest cost (Mansfield, Schwartz, & Wagner, 1981; Mansfield, 1985). The real question is therefore how the enterprise can keep renewing its resource base and creating new capabilities.

The capabilities approach looks beyond the concept that possession of a unique resource leads to sustainable competitive advantage. It contends that the active development and astute orchestration of tangible and intangible assets lies at the heart of the rationale for the MNE/FDINV. Put differently, dynamic capabilities, together with good strategy, are the foundations of long-run success. Dynamic capabilities are, in some sense, about *what*

organizational characteristics are needed in order to seize the opportunities identified as the most promising. Strategy, in contrast, is more about *how* success can be achieved. Strategy that is consistent, coherent, and embraces innovation can determine a path forward. A firm with strong dynamic capabilities can flesh out the details around the new strategic intent and implement strategic actions quickly and effectively.

Dynamic capabilities and business strategy must work together to produce strong firm performance. Firms with weaker capabilities will require different strategies than firms with stronger capabilities, reflecting the reality that a good plan for coherent action must first of all be feasible. Strong dynamic capabilities can become worthless if they are tied to a poor or badly misjudged strategy.

Dynamic capabilities arose, in part, from the Resource-Based View (RBV) of the firm. The RBV was an important intellectual leap beyond the prevailing, Porter (1980) view that strategic success comes from heightened efficiency and the creation of barriers to entry. However, the resources approach is silent when it comes to explaining how firms develop or acquire new competences and particularly how they manage them over time. Durable success requires not simply clever strategic positioning but the continued and laborious accumulation, periodic winnowing, and ongoing orchestration of intangible assets and other resources. The management of resources is clearly as important as their mere possession—perhaps even more so.

The original definition of dynamic capabilities (Teece, Pisano, & Shuen, 1997) referred to the ability of an organization and its management to build, integrate, and reconfigure internal and external competencies to address complex and rapidly changing environments within the limitations of certain path dependencies. Eisenhardt and Martin (2000) extended this to also

embrace actually shaping the environment, such as by the market creation and co-creation functions discussed earlier.

Most strategic management scholars (see Helfat et al., 2007) seem to accept that the essence of a firm's dynamic capabilities lies in part in the organizational processes (Teece 1985; Teece et al., 1997) that undergird asset orchestration by management. These embrace and are supplemented by the entrepreneurial and leadership skills of its top management (Augier & Teece, 2009).

The foundations of dynamic capabilities are hinted at by Penrose (1959), who argued that the services provided by a firm's resources were fungible and could be leveraged (by management) into new applications to promote firm growth. The dynamic capabilities approach also owes much to Schumpeter for his prescient description of today's competitive environment and his hints with respect to the competitive processes that firms must employ to remain viable. The foundations of enterprise success in dynamically competitive environments are not animated very much by transactions cost or contractual concerns.

The dynamic capabilities perspective (Teece et al., 1997; Teece, 2007), with its emphasis on opportunity identification and timely response in complex environments, is a natural fit with the INV literature. It has been finding increasing acceptance as scholars search for deeper explanations of early and sustainable internationalization (e.g., Prange & Verdier, 2011; Sapienza, Autio, George, & Zahra, 2006; Weerawardena, Mort, Liesch, & Knight, 2007; and Zettinig & Benson-Rea, 2008).

In the MNE literature, the dynamic capabilities framework also resonates well with Cantwell's work. While he has not stressed asset orchestration, Cantwell recognized, correctly, that a theory of the MNE, based on a transaction costs/governance framework, masks any active

role for managerial strategy (1989, p. 215). He also argued that ownership advantages are endogenous and developed through innovation and strategy, and showed how MNEs extend their capabilities and their overall innovation potential using global networks.

Ordinary Capabilities

Dynamic capabilities can be illuminated by juxtaposing them against ordinary capabilities. Ordinary capabilities are about producing and selling a defined (and static) set of products and services. As Winter (2003) and Helfat et al. (2007) recognize, the value of an ordinary capability is bounded from below by zero; the organization either has the capability to some degree or it does not. Dynamic capabilities, by contrast, can take on negative values because the organization can be so poor in its ability to adapt to change that it has a negative influence on firm performance.

Ordinary capabilities are not equivalent to operational capabilities. Operations need to be planned and coordinated in order for tasks to be performed. The administrative and governance roles of endeavoring to optimize task performance, choosing a human resources approach, and selecting a composition for the board of directors are also part of ordinary capabilities. Strong ordinary capabilities reflect technical fitness. They require adopting best practices. However, technical fitness tells us nothing about how well the firm's ordinary capabilities are suited to market requirements (Teece, 2007, p. 1321). A firm may prosper for a while with strong ordinary capabilities but weak dynamic capabilities, especially in environments with low competition. The challenge comes when there is rapid change due to technological progress or other sources of hyper-competition (D'Aveni, Dagnino, & Smith, 2010). By definition, weak dynamic capabilities mean that the firm is unable to adapt well to a new business environment.

Organizational ecologists have found in many industries that this inability to adapt is more a rule than an exception.

Ordinary capabilities and their transfer are not unimportant to the MNE/FDINV. A set of ordinary capabilities developed in one location combined with lower wages in a new location can provide the basis of at least a short-lived competitive advantage.

Knowledge with respect to how to develop and hone most ordinary capabilities is largely explicit. They can be optimized and calibrated against the best practices of other firms. Many best practices, however, diffuse rather quickly so that ordinary capabilities are unlikely to become a continued source of competitive advantage.

Indeed, the rapid diffusion of best practice has gained pace in recent decades. Many basic (and formerly strategic) business services (e.g., accounting, sales, human resource management) can today be readily outsourced to providers of software running on computing resources resident in the “cloud,” a set of third-party Internet-connected computing resources shared simultaneously by numerous clients with no relation to one another. The general march of computer processing power and the continued development of the Internet greatly facilitate starting up and internationalizing a business.

MNEs investing abroad “appear to adopt good management practices in almost every country in which they operate” (Bloom, Genakos, Sadun, & Van Reenen, 2012, p. 14). They may succeed for a while with these strong ordinary capabilities, as ordinary capabilities at home may for a while be distinctive abroad, especially in less-developed economies. McDonald’s, for example, excels at transferring its considerable ordinary capabilities overseas as it pioneers sophisticated supply chains in new territories (Luo, 2000). However, the presence of strong

ordinary capabilities without correspondingly strong dynamic capabilities is likely to be a slender thread for supporting competitive advantage, unless the competitive environment is very weak.

Dynamic Capabilities

Dynamic capabilities are beyond best practice. They are higher-order capabilities in the sense that they govern how the organization's ordinary capabilities are developed, augmented, subtracted from, and combined. They characterize how an organization develops strengths, extends them (for instance, by developing new business models), synchronizes them with the business environment, and/or shapes the business environment in its favor.⁹ They represent a foundation for the firm's long-run competitive advantage that goes beyond merely superior coordination as compared to the market, and beyond the exploitation of static advantages such as patents.

Dynamic capabilities derive from some combination of top management skills and the firm's history, values, and routines (Teece, 2007). The emphasis in the dynamic capabilities framework is on the need for management to be able, in a distinctive and advantageous manner, to align people, processes, and assets to satisfy consumer desires and achieve strong financial performance. IBM, in order to develop new avenues of growth, successfully routinized its selection, evaluation, and exploitation of "emerging business opportunities" in a process that has

⁹ Higher-order capabilities do not always remain so. For instance, an important function in drug development is achieving regulatory approval. At present, many major pharmaceutical companies have well-developed processes (for running the approval process). In time, however, they could become standardized and available from a business service provider. Commoditization of a higher-order capability makes it a lower-order (ordinary) capability.

resulted in billions of dollars of additional revenue (O'Reilly, Harreld, & Tushman, 2009). Similarly, Cisco has routinized its selection and integration of acquisition targets (Mayer & Kenney, 2004). While strong dynamic capabilities depend heavily on the insight and orchestration capacities of entrepreneurial managers, the supporting routines and values must be deeply ingrained in the organization and its history.

Whereas strong ordinary capabilities are about doing things right, strong dynamic capabilities are about doing the right things, at the right time, based on a forward-looking assessment of the business environment and technological opportunities, and on a backward-looking understanding of the firm's history, culture, and distinctive routines.¹⁰ By the right things, we refer to investment in new products, processes, and business models that are in tune with the firm's business environments at home and abroad.

Japanese firms rose to global dominance in many industries on the strength of their ordinary capabilities, developed by employing learning processes that resulted in operational excellence. Operational excellence is a strong ordinary capability. However, rivals of Japanese companies in autos, semiconductors, and other industries have not only learned to replicate Japanese quality and efficiency, they have also out-innovated Japan, particularly in product development and business models. Much of Japan's economic weakness since the 1990s can be

¹⁰ Many discussions of operations strategy drift into what may seem to be dynamic capabilities. Some scholars see operations strategy as developing resources and configuring processes so that there is good strategic fit with the business environment (Van Mieghem, 2008, p.18). The distinction can be seen in the fast food industry. Ordinary capabilities concern improving key performance indicator (KPI) metrics, training, etc. Dynamic capabilities include figuring out new products to put on the menu, new operating hours (e.g., late night), and new locations (central versus suburban).

traced to a weakness in the dynamic capabilities of Japanese firms and to political gridlock. Strong dynamic capabilities would have enabled them to redirect their strengths more rapidly toward new global market opportunities. As any study of this nation-level example suggests, home-country institutions play a role in shaping the dynamic capabilities of the MNE/FDINV.

Operationalizing Dynamic Capabilities

For purposes of operationalizing the framework, dynamic capabilities can usefully be disaggregated into three clusters of processes and managerial activities conducted inside firms: (1) identification and assessment of opportunities at home and abroad (*sensing*), (2) mobilization of resources globally to address opportunities and to capture value from doing so (*seizing*), and (3) continued renewal (*transforming*). Sensing is the most entrepreneurial of the three clusters, whereas seizing is dominated by more basic managerial concerns. Transforming places a premium on high-quality leadership.

Sensing involves exploring technological possibilities, probing markets, listening to customers, and scanning the business environment. It requires management to be entrepreneurial and to build and “test” hypotheses about market and technological evolution, including the recognition of “latent” demand on a global scale. It is critical that sensing activities are embedded throughout the company and that management open channels that allow intelligence (not simply data) to flow from the farthest reaches of the organization to the top management team.

This integration is harder, yet arguably more important, to achieve when the firm has operations located in other countries. Starbucks, for example, took its coffeehouse business model global starting in the late 1990s, less than ten years after Howard Schultz bought the six-store Seattle chain. The company discovered that it needs to adapt the Starbucks experience and

its products and services for a variety of tastes and cultural habits in Europe (Alderman, 2012) and even more so in China (Burkitt, 2012). In 2011, to ensure a better balance between local voices and corporate initiatives, the company changed from a functional to a regional management structure.

Once opportunities are properly sensed and calibrated, they need to be seized. The capabilities behind seizing involve identifying, establishing control or influence over, then coordinating complementary assets by building a global supply chain, establishing alliances and joint ventures, and much more. For competition on a global scale, speed is a critical dimension of implementation, as hypercompetition shortens the time during which truly novel ideas can dominate a market before encountering significant rivalry (D'Aveni et al., 2010). Notions of what constitutes the long-term have, in some industries like mobile telephony, been compressed from years to months.

Amongst the assets that are likely to be vital yet difficult, or impossible, to acquire via the market are know-how, intellectual property, and other intangibles.¹¹ Such assets need to be “built”—a slow process, but one which results in an asset that is hard for others to imitate. It is therefore crucial that the entrepreneur be sufficiently forward-looking to make a reasonable prediction about the capabilities needed to deliver a valuable solution to customers at the right time.

¹¹ If markets for intellectual property and other intangibles even exist, mutually beneficial trades frequently don't take place because the property rights may be poorly defined (fuzzy), the asset difficult to transfer, or its use difficult to meter (Teece, 2000).

Transformation capabilities include selectively phasing out old products, renovating older facilities both domestically and globally, and changing business models, methods, and organizational culture. It may involve abandoning (or spinning off) investments that no longer necessarily belong with the enterprise. Transformational capabilities are needed most obviously when radical new threats and opportunities need to be addressed. But they are also needed periodically to soften the rigidities that develop over time from asset accumulation and the development of standard operating procedures.

Start-ups generally find adaptation easier than do mature firms. New ventures are able to quickly test, discard, and replace ideas and business models that don't work. Indeed, this is what the "lean startup" modality requires (Ries, 2011). This is especially true for Internet companies, and for circumstances where social media can provide fast feedback. "Fail fast but fail smart" is the mantra of many entrepreneurs today. The ability to "pivot" is critical to new venture success. Even Google is quick to pull the plug on efforts that fail to gain traction in the market, often returning with a different approach to the same service, as seen in the progression of its social network offerings from Google Wave (2009) to Google Buzz (2010) to Google+ (2011).

Effectuating change requires unusual leadership skills to help the organization deal effectively with path dependencies and other structural rigidities without undermining employee morale. The purpose of transformation is to keep the firm's assets in alignment with the business environment. Complementarities need to be constantly managed to avoid creating major new problems when addressing old ones.¹²

¹² As Winter (2003, p. 993) explains, change can be reactive; firms can easily get into a "fire fighting" mode, which he called "ad hoc problem solving." This is in contrast to routine-directed problem solving that involves a more

In INVs, sensing, seizing, and transformation may rest primarily on the shoulders of the founders. It takes time for the culture and routines that can support dynamic capabilities more broadly to become embedded throughout the organization. In fact, the dynamic capabilities framework is to some extent an approach for having the entire organization operate in an entrepreneurial fashion.

In established MNEs these will be ongoing processes. In business environments of any volatility, the senior management will be required to implement what O'Reilly and Tushman (2008) call ambidexterity: actively sensing and experimenting with new technologies and business models while continuing to seize/exploit the existing mainstay business lines. Even in non-volatile environments, the MNE may find itself practicing different clusters of capabilities in different markets. For example, Yum Brands, the owner of fast-food brands KFC, Taco Bell, and Pizza Hut, has simultaneously engaged in rapid expansion (seizing) in China and in retrenchment and transformation in one of its established markets, the United Kingdom.

A CAPABILITIES-AUGMENTED APPROACH TO THE MNE/FDINV

So far we have invoked a number of theories in various ways to explain aspects of the internationalization of firms. In this section we tie the elements together into a more complete framework for understanding the founding, growth, and competitive sustainability of the MNE.

methodical approach from analysis to action. Although only the routinized approach is usually recognized as a capability, it is possible that, on close examination, even “fire fighting” approaches to problem solving may entail micro-routines that the organization has learned.

Entrepreneurship provides the initial spark for the creation of a new company. A key entrepreneurial function is the design and implementation of a viable business model that allows the new firm to create and capture value. A new enterprise typically enters the marketplace with some level of ordinary capabilities and some amount of intangible assets, guided by a strategy. Depending on the complexity and suitability of its product or service, it may or may not be able to begin export sales immediately.

Dynamic capabilities come into play early in the firm's existence as it assesses its fitness not only for the current business environment but also in light of high-probability opportunities and threats. Analysis may lead to investment decisions that support the development of new resources and assets, a shift in business model, or the establishment of alliances. Such capabilities are also needed to evaluate opportunities for the firm in other economies, whether for sales, or for conducting research or manufacturing. The opportunities could include untapped market potential, cospecialized knowledge embodied in human resources, or an abundant labor supply. If such opportunities exist, are they better pursued by direct investment, by outsourcing, or with a partner? These internalization decisions are made partly on the basis of transaction costs (risks of opportunism) and of potential learning (opportunities for knowledge creation) and partly on the basis of conditions in the target (foreign) market and on the match between the firm's domestic capabilities and the needs in the target market.

As Helfat and Lieberman (2002, p. 738) note, firm-level capabilities behave simultaneously as a constraint and an enabler:

...research on geographic replication and foreign market entry supports the proposition that established firms enter markets where they have pre-entry resources and capabilities that are similar to the resource requirements of the

market of entry. The choice of geographic markets is most strongly influenced by specialized resources and capabilities, including knowledge of the local market and tacit technological skills.

By extension, cross-border expansion through direct investment will occur later in the life of the firm if the relevant capabilities are initially absent and time-consuming to develop. The firm should be reluctant to enter a foreign market (or even a proximate domestic market) if it doesn't have at least strong ordinary capabilities and enough slack to replicate them without hitting internal resource constraints.

A dynamic capabilities perspective takes us even further in understanding the phenomenon. When an MNE or INV considers a new foreign market, it first involves sensing an opportunity. In order to seize the opportunity through direct investment or joint venture, it will need to replicate/transfer some of its own capabilities as well as augment these with some of the ordinary capabilities employed by rival incumbents in the host market. Projection of capabilities across borders involves transferring or redeploying skills and routines from one specific economic setting to another. Adjustments must be made in the new location so that the capabilities will be as well suited to the local environment as they are in the initial location. Too often, the contextual dependence of a firm's performance in its home market is only poorly appreciated.

The first time the firm attempts to replicate its systems of productive knowledge in another market, the act of replication is likely to be particularly costly (Teece, 1976). New learning may be required because the skills and know-how the INV possesses in one context might not quite fit or work in a different geographic context. Local product markets, factor markets, and institutions all play an important role in shaping capability requirements (Porter,

1990). The less the firm knows about the foreign business environment, the more it should be willing to work with local partners, provided this can be done without jeopardizing key intangibles (Madhok, 1997).

Strong dynamic capabilities are needed when adaptation is required in order to create a suitable match with the host country environment (and/or transform the host country market itself to build receptivity to the MNE or FDINV's product offering). In other words, horizontal market entry strategies are not just about minimizing transaction costs or overcoming market failures. Direct investment into offshore activities is mostly determined by the correct assessment of capability requirements, supported by the ability to replicate the applicable capabilities and develop or access any that are absent.

The time required for transferring capabilities and the timing imperatives of market entry interact to further determine the mode of entry. Time-cost tradeoffs for technology transfer processes have been analyzed and empirically estimated (Teece, 1977b, 1980, 1986). If the time-cost tradeoff is too steep, managers should seek a joint venture with a local partner who can provide access to the necessary location-specific capabilities.¹³

To sum up this discussion and narrow it down with regard to a central concern of international entrepreneurship research, we can identify a number of factors that must be present to enable early internationalization. First is the entrepreneurial identification of a foreign market to which the firm's product or service is (or could be) suitable, and a calculation about how much groundwork needs to be laid to educate potential foreign customers. This must be augmented by

¹³ Dierickx and Cool (1989), who do not use the language of time-cost tradeoffs, speak of "time compression diseconomies" (1989, p. 1504), which appears to be getting at the same idea.

an assessment (conditional on the business and institutional environment in the foreign market) of the required capabilities to sell or invest abroad, including the capability to transfer the relevant capabilities in a timely manner. The capabilities of potential host-country partners need to be understood in order to evaluate the suitability of a partnering strategy. Where capabilities gaps exist, a judgment must be made whether the time (and loss of potential sales) needed to develop them in-house exceeds the long-term benefit from doing so (e.g., will the capabilities be useful in other markets? will they help to defend against local rivals?). Finally, a strategy must be developed for going to market.

- **CONCLUSION**

Oviatt and McDougall (1994) presented a framework that sought to describe the essential characteristics of new ventures that were both international and profitable. This paper places the four elements of the Oviatt-McDougall framework (Internalization, Alternative Governance Structures, Foreign Location Advantage, and Unique Resources) in a richer framework drawing on entrepreneurship and capabilities theories that more fully accounts for the existence and characteristics of organizations of all sizes and vintages that are both international and profitable.

Mainstream theories of the MNE, which are generally applicable to the FDINV as well, do not ask enough of the right questions. They omit any role for entrepreneurs and managers other than the minimization of potential costs associated with opportunism. Furthermore, they do not properly recognize the importance of external linkages. Today, asset ownership is optional; asset orchestration (whether the asset is internal or external) is essential. This is true for the MNE and even more true for resource-constrained INVs.

The management of the international firm must address markets, factors of production, and infrastructure that are different from those of the “home” country. In these environments, entrepreneurs and managers must be able to (1) sense an opportunity abroad (which usually comes from evaluating the foreign sales opportunity of its own products and/or the cost/capability bundles that can be accessed abroad); then (2) seize it (by addressing the foreign market through exports or production, or by tapping new pools of individual and organizational capabilities); and finally (3) transform the firm as the environment requires and allows.

As a practical matter, it is relatively uninteresting to simply frame the foreign direct investment (FDI) issue as a neoclassical multiplant production-cost minimization problem, or as a transaction cost minimization exercise. The basic questions that should be of most interest to managers and theorists alike are where to locate activities in order to minimize costs while maximizing learning and market access, and where best to leverage the firm’s existing assets and resources into a new business/market environment in the pursuit of sustained differentiation and profit.

Cross-border activity is usually much more than a simple replication of some portion of a firm’s existing activities in a new location. Capabilities need to be adapted to local conditions. Some degree of market creation or co-creation may be needed to foster acceptance of the firm’s products.

Mainstream governance or exchange-based approaches to the international firm don’t even try to explain the profitability and competitive advantage of particular firms. The capabilities approach endeavors to explain both. Many elements of the capabilities and entrepreneurship frameworks are already in the literature, so it is an incremental, but critical, step

to incorporate them into the theory of the multinational enterprise. In this paper, we have tried to initiate this process.

References

- Alderman, L. (2012). In Europe, Starbucks adjusts to a café culture. *New York Times*. March 30.
<http://www.nytimes.com/2012/03/31/business/starbucks-tailors-its-experience-to-fit-to-european-tastes.html?pagewanted=all>
- Alvarez, S. A., & Barney, J. B. (2007). Discovery and creation: alternative theories of entrepreneurial action. *Strategic Entrepreneurship Journal*, 1(1-2), 11–26.
- Augier, M., & Teece, D. J. (2007). Dynamic capabilities and the multinational enterprise: Penrosean insights and omissions. *Management International Review*, 47(2), 175–192.
- Augier, M., & Teece, D. J. (2009). Dynamic capabilities and the role of managers in business strategy and economic performance. *Organization Science*, 20(2), 410–421.
- Barnard, C. I. (1938). *The functions of the executive*. Cambridge, MA: Harvard University Press.
- Barney, J. 1991. Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
- Birkinshaw, J., & Hood, N. (1998). Multinational subsidiary evolution: Capability and charter change in foreign-owned subsidiary companies. *Academy of Management Review*, 23(4), 773–795.
- Bloom, N., Genakos, C., Sadun, R., & Van Reenen, J. (2012). Management practices across firms and countries. *Academy of Management Perspectives*, 20(1), 12–33.

- Boudreaux, D. J., & Holcombe, R. G. (1989). The Coasian and Knightian Theories of the Firm. *Managerial and Decision Economics*, 10(2), 147–154.
- Buckley, P. J., & Casson, M. C. (1976). *The future of multinational enterprise*. London: Macmillan.
- Buckley, P. J., & Casson, M. C. (1998a). Models of the multinational enterprise. *Journal of International Business Studies*, 29(1), 21–44.
- Buckley, P. J., & Casson, M. C. (1998b). Analyzing foreign market entry strategies: Extending the internalization approach. *Journal of International Business Studies*, 29(3), 539–561.
- Burkitt, L. (2012). Starbucks plays to local Chinese tastes. *Wall Street journal*, November 26. <http://professional.wsj.com/article/SB10001424127887324784404578142931427720970.html>
- Cantwell, J. A. (1989). Technological innovation and multinational corporations. Oxford: Blackwell.
- Cantwell, J. A. (2009). Location and the multinational enterprise. *Journal of International Business Studies*, 40(1), 35–41.
- Cantwell, J. A., & Mudambi, R. (2005). MNE competence-creating subsidiary mandates. *Strategic Management Journal*, 26(12), 1109–1128.
- Chesbrough, H. (2003). *Open innovation: The new imperative for creating and profiting from technology*. Boston: Harvard Business School Press.
- Coase, R. (1937). The nature of the firm. *Economica*, 4(16), 386–405.
- Coviello, N. E. (2006). The network dynamics of international new ventures. *Journal of International Business Studies*, 37(5), 713–731.

- D'Aveni, R., Dagnino, B. G., & Smith, K. G. (2010). The age of temporary advantage. *Strategic Management Journal*, 31(13), 1371–1385.
- Dierickx, I., & Cool, K. (1989). Asset stock accumulation and sustainability of competitive advantage. *Management Science*, 35(12), 1504–1511.
- Dunning, J. (1981). International production and the multinational enterprise. London: Allen & Unwin.
- Dunning, J. (1988). The eclectic paradigm of international production: a restatement and some possible extensions. *Journal of International Business Studies*, 19(1), 1–31.
- Dunning, J. (1993). *The globalization of business*. London: Routledge.
- Dunning, J. (1995). Reappraising the eclectic paradigm in the age of alliance capitalism. *Journal of International Business Studies*, 26(3), 461–93.
- Dunning, J. H., & Lundan, S. M. (2010). The institutional origins of dynamic capabilities in multinational enterprise. *Industrial and Corporate Change*, 19(4), 1225–1246.
- Dunning, J., & Pitelis, C. N. (2008). Stephen Hymer's contribution to international business scholarship: An assessment and extension. *Journal of International Business Studies*, 39(1), 167–176.
- Eisenhardt, K., & Martin, J. (2000). Dynamic capabilities: What are they? *Strategic Management Journal*, 21(10–11), 1105–1121.
- Foss, K., Foss, N. J., Klein, P. G., & Klein S. K. (2007). The entrepreneurial organization of heterogeneous capital. *Journal of Management Studies*, 44(7), 1165–1186.
- Foss, N. J., Klein, P. G., Kor, Y. Y., & Mahoney, J. T. (2008). Entrepreneurship, subjectivism, and the resource-based view: toward a new synthesis. *Strategic Entrepreneurship Journal*, 2(1), 73–94.

- Gans, J., & Stern, S. (2010). Is there a market for ideas? *Industrial and Corporate Change*, 19(3), 805–837.
- Gulati, R., Nohria, N., & Zaheer, A. (2000). Strategic networks. *Strategic Management Journal*, 21(3), 203–215.
- Hashai, N. (2011). Sequencing the expansion of geographic scope and foreign operations by “born global” firms. *Journal of International Business Studies* 42(8), 995–1015.
- Hashai, N., & Almor, T. (2004). Gradually internationalizing ‘born global’ firms: an oxymoron? *International Business Review*, 13(4), 465–483.
- Helfat, C. E., & Lieberman, M. B. (2002). The birth of capabilities: Market entry and the importance of pre-history. *Industrial and Corporate Change*, 11(4), 725–760.
- Helfat, C. E, Finkelstein, S., Mitchell, W., Peteraf, M. A., Singh, H., Teece, D. J., & Winter, S.G. (2007). *Dynamic capabilities: Understanding strategic change in organizations*. Oxford: Blackwell.
- Hennart, J. F. (1977). *A theory of multinational enterprise*. Ph.D dissertation, University of Maryland.
- Hennart, J. F. (1982). *A theory of multinational enterprise*. Ann Arbor: University of Michigan Press.
- Hennart, J. F. (2009). Down with MNE-centric theories! Market entry and expansion as the bundling of MNE and local assets. *Journal of International Business Studies*, 40(9), 1432–1454.
- Hymer, S. (1976). The international operations of national firms: A study of direct foreign investment. Cambridge, MA: MIT Press.

- Jacobides, M. G., & Winter, S. G. (2005). The co-evolution of capabilities and transaction costs: explaining the institutional structure of production. *Strategic Management Journal*, 26(5), 395–413.
- Jones, M. V. (1999). The internationalization of small high-technology firms. *Journal of International Marketing*, 7(4), 15-41.
- Jones, M. V., & Coviello, N. E. (2005). Conceptualising an entrepreneurial process of behaviour in time. *Journal of International Business Studies*, 36(3), 284-303.
- Jones, M. V., Coviello, N., & Yee Kwan Tang, Y. K. (2011). International Entrepreneurship research (1989–2009): A domain ontology and thematic analysis. *Journal of Business Venturing*, 26(6), 632–659.
- Keupp, M. M., & Gassmann, O. (2009). The past and the future of international entrepreneurship: a review and suggestions for developing the field. *Journal of Management*, 35(3), 600-633.
- Kirzner, I. M. (1985). *Discovery and the capitalist process*, Chicago: University of Chicago Press.
- Knight, F. (1921). *Risk, uncertainty and profit*. New York: Augustus Kelley.
- Kogut, B., & Zander, U. (1992). Knowledge of the firm: Combination, capabilities, and the replication of technology. *Organizational Sciences*, 3(3), 383–397.
- Langlois, R. N. (2007). The entrepreneurial theory of the firm and the theory of the entrepreneurial firm. *Journal of Management Studies*, 44(7), 1107–1124.
- Luo, Y. (2000). Dynamic capabilities in international expansion. *Journal of World Business*, 35(4), 355–378.

- Madhok, A. (1997). Cost, value and foreign market entry mode: the transaction and the firm. *Strategic Management Journal*, 18(1), 39–62.
- Mansfield, E. (1985). How rapidly does new industrial technology leak out? *Journal of Industrial Economics*, 34(2), 217-223.
- Mansfield, E., Schwartz, M., & Wagner, S. (1981). Imitation costs and patents: An empirical study. *Economic Journal*, 91(364), 907-918.
- Mayer, D., & Kenney, M. (2004). Economic action does not take place in a vacuum: Understanding Cisco's Acquisition and Development Strategy. *Industry and Innovation*, 11(4), 299-325.
- 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(6), 469–487.
- O'Reilly, C. A., Harreld, J. B., & Tushman, M. L. (2009). Organizational ambidexterity: IBM and emerging business opportunities. *California Management Review*, 51(4), 75–99.
- O'Reilly, C. A., & Tushman, M. L. (2008). Ambidexterity as a dynamic capability: resolving the innovator's dilemma. In: A. P. Brief & B. M. Staw (Eds.), *Research in Organizational Behavior*, vol. 28 (pp. 185–206). Oxford: Elsevier.
- Oviatt, B. M., & McDougall, P. P. (1994). Toward a Theory of international new ventures. *Journal of International Business Studies*, 25(1), 45-64.
- Oviatt, B. M., & McDougall, P. P. (2005). Defining international entrepreneurship and modeling the speed of internationalization. *Entrepreneurship Theory & Practice*, 29(5), 537–554.
- Penrose, E. T. (1959). *The theory of the growth of the firm*. New York: John Wiley.

- Pisano, G. P., Shan, W., & Teece, D. J. (1988). Joint ventures and collaboration in the biotechnology industry. In D. Mowery (Ed.), *International collaborative ventures in U.S. manufacturing* (pp. 183–222). Cambridge, MA: Ballinger Publishing Company.
- Pitelis, C. N., & Teece, D. J. (2010). Cross-border market co-creation, dynamic capabilities and the entrepreneurial theory of the multinational enterprise. *Industrial and Corporate Change*, 19(4), 1247–1270.
- Porter, M. E. (1980). *Competitive strategy*. New York: Free Press.
- Porter, M. E. (1990). *The competitive advantage of nations*. New York: Free Press.
- Prange, C., & Verdier, S. (2011). Dynamic capabilities, internationalization processes and performance. *Journal of World Business*, 46(1), 126–133.
- Richardson, G. B. H. (1972). The organisation of industry. *Economic Journal*, 82(327), 883–896.
- Ries, E. (2011). *The lean startup: how today's entrepreneurs use continuous innovation to create radically successful businesses*. New York: Crown Business.
- Robertson, D., & Ulrich, K. (1998). Planning for product platforms. *Sloan Management Review*, 39(4), 19-31.
- Rugman, A.M. (1981). *Inside the multinationals: The economics of internal markets*. New York: Columbia Press.
- Rugman, A. M., & Verbeke, A. (2001). Subsidiary-specific advantages on multinational enterprises. *Strategic Management Journal*, 22(3), 237–250.
- Sapienza, H. J., Autio, E., George, G., & Zahra, S. A. (2006). A capabilities perspective on the effects of early internationalization on firm survival and growth. *Academy of Management Review*, 31(4), 914-933

- Sarasvathy S. D., Dew N., Velamuri S. R., & Venkataraman S. (2003). Three views of entrepreneurial opportunity. In *Handbook of Entrepreneurship Research: An Interdisciplinary Survey and Introduction* (pp. 141–160). Z. J. Acs & D. B. Audretsch (Eds.), Dordrecht, The Netherlands: Kluwer.
- Sautet, F. E. (2000). *An Entrepreneurial Theory of the Firm*. London: Routledge.
- Shane, S. (2003). A General Theory of Entrepreneurship: The Individual-Opportunity Nexus. Northampton, MA: E. Elgar.
- Smith, A. (1776). An inquiry into the nature and causes of the wealth of nations. London: Strahan and Cadell. In *The making of the modern world* (Gale database). URL: <http://find.galegroup.com/mome/dispatchBasicSearch.do?prodId=MOME>.
- Teece, D. J. (1975). The multinational corporation and the resource cost of international technology transfer. Philadelphia: Economics Department, University of Pennsylvania,
- Teece, D. J. (1976). The multinational corporation and the resource cost of international technology transfer. Cambridge, MA: Ballinger Publishing.
- Teece, D. J. (1977a). Technology transfer by multinational firms: the resource cost of transferring technological know-how. *The Economic Journal*, 87(346), 242–261.
- Teece, D. J. (1977b). Time-cost tradeoffs-elasticity and determinants for international technology transfer projects. *Management Science*, 23(8), 830–837.
- Teece, D. J. (1980). Economies of scope and the scope of the enterprise. *Journal of Economic Behavior and Organization*, 1(3), 223–247.
- Teece, D. J. (1981a). The multinational enterprise: Market failure and market power considerations. *Sloan Management Review*, 22(3), 3–17.

- Teece, D. J. (1981b). The market for know-how and the efficient international transfer of technology. *Annals of the Academy of Political and Social Science*, 458 (1), 81–96.
- Teece, D. J. (1982). Towards an economic theory of the multiproduct firm. *Journal of Economic Behavior and Organization*, 3(1), 39–63.
- Teece, D. J. (1985). Multinational enterprise, internal governance, and industrial organization. *American Economic Review*, 75(2), 233–238.
- Teece, D. J. (1986). Profiting from technological innovation. *Research Policy*, 15(6), 285–305.
- Teece, D. J. (2000). Managing intellectual capital: Organizational, strategic, and policy dimensions. Oxford: Oxford University Press.
- Teece, D. J. (2006). Reflections on profiting from innovation. *Research Policy*, 35(8), 1131–1146.
- Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350.
- Teece, D. J. (2011). Human capital, capabilities, and the firm: literati, numerati, and entrepreneurs in the twenty-first century enterprise. In A. Burton-Jones and J.-C. Spender (Eds.), *Oxford Handbook of Human Capital* (pp. 527–562). Oxford: Oxford University Press.
- Teece, D. J. (forthcoming). An Entrepreneurial, (Dynamic) Capabilities-based Theory of the MNE. *Journal of International Business Studies*.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 537–533.
- Van Mieghem, J. A. (2008). *Operations strategy: Principles and practices*. Belmont, MA: Dynamic Ideas.

- Weerawardena, J., Mort, G. S., Liesch, P. W., & Knight, G. (2007). Conceptualizing accelerated internationalization in the born global firm: A dynamic capabilities perspective. *Journal of World Business*, 42(3), 294–306.
- Williamson, O. (1975). *Markets and hierarchies: Analysis and antitrust implications*. New York: Free Press.
- Williamson, O. (1991). Comparative economic organization: the analysis of discrete structural alternatives. *Administrative Science Quarterly*, 36(2), 269–96.
- Winter, S. G. (2003). Understanding dynamic capabilities. *Strategic Management Journal*, 24(10), 991–995.
- Zahra, S. A., Ireland, R. D., & 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(5), 925–950.
- Zettinig, P. & Benson-Rea, M. (2008). What becomes of International New Ventures? A coevolutionary approach. *European Management Journal*, 26(6), 354–365.