The New MNE:

‘Orchestration’ Theory as Envelope of ‘Internalisation’ Theory

Christos Pitelis
Brunel University London
and Queens’ College, Cambridge
Kingston Lane, Uxbridge
UB8 3PH

David Teece
Institute for Business Innovation
F402 Haas School of Business, #1930
University of California, Berkeley
Berkeley, CA 94720-1930

February 2018

Keywords: Orchestration, Internalisation, Multinational Enterprise, Co-opetition, Co-creation

This is a post- peer-review, pre-copyedit version of an article published in Management International Review. The final authenticated version is available online at: https://doi.org/10.1007/s11575-018-0346-2.

Acknowledgement: We are grateful to participants at the 2016 AIB panel on internalisation for comments, to Greg Linden for helpful feedback and research support, to Johan Wallin for discussion, to the Editors of this journal and to Alkis Pitelis for research assistance.

The New MNE: 'Orchestration' Theory as Envelope of 'Internalisation' Theory

Abstract

We propose an orchestration theory of the (new) MNE as an envelope of internalisation theory and its variants. We first critically assess extant varieties of internalisation theory of the MNE. We then discuss their limitations and explain why it is important to move from internalisation to an orchestration theory of the MNE. Orchestration theory, rooted in and encompassing the dynamic capabilities framework, helps explain a number of MNE phenomena that challenge internalisation theory, including entrepreneurship, learning, co-opetition, open innovation, value capture and market and ecosystem co-creation. It entails much more than the make-or-buy decision of internalisation theory and it is more closely aligned to today's global environment, conceptual developments in cognate fields and the strategies and practices of MNEs. We also discuss prospects for further research using an orchestration approach.

I. Introduction

The need for a theory that provides the raison d'être of the multinational enterprise (MNE) separate from a general theory of the firm has not always been self-evident to scholars. As Hymer (1960) observed in his PhD thesis, conventional international economics viewed the MNE as a form of portfolio investment, motivated by macroeconomic considerations, in particular by interest rate differentials. Eminent scholars such as Edith Penrose (1956, 1959) had argued that a theory of the (growth of) the firm suffices to explicate international expansion and hence the MNE, once some additional subsidiary assumptions were added. Gradually, however, it became apparent that treating the MNE as an extension of other types of firms was inadequate. That was in part because 'international operations' need not automatically involve foreign direct investment (FDI); cross-border activity could be limited to exports, licencing, or contracting. A separate theory was also needed because the potential quasi-autonomy of MNE overseas subsidiaries embedded in different regulatory regimes and cultures was felt to be distinct from such differences within nations and presents distinct questions, challenges and opportunities. The pursuit of these lines of research led to a theory of the MNE and, eventually, what we now call International Business (IB) scholarship (Dunning and Pitelis, 2010).

IB today feels like a success story, with its own theories, conferences, key journals, and leading scholars. Among the theories, a special place belongs to 'internalisation' theory and its main envelope theory, Dunning's Ownership, Location, Internalisation (OLI) approach. Key proponents of internalisation theory are Buckley and Casson (1976), Rugman (1975), Teece (1976, 1977), Hennart (1982), Williamson (1981), and Dunning (1980). The mid-1970s and early 1980s were a high-water mark for internalisation research, establishing it as the basis for most IB models. Below we note that work by Hymer (1960, 1968) and by Kogut and Zander (1992), which were originally not seen as being internalisation theories, are actually variants.

In spite of the apparent success of MNE theory in general and internalisation theory in particular, they may well have become outmoded in their existing form. Shifts in the global landscape, new conceptual developments and novel strategies and practices by MNEs require revisiting the nature and scope of the MNE. We discuss some key developments and suggest that the role of entrepreneurial agency, externalisation, complementarities, co-opetition, co-creation, learning and (dynamic) capabilities are critical factors in appreciating the why, what, where, when and how of the MNE. We submit that while internalisation remains an important part of MNE activities, it is just that - a part. MNEs do much more than internalise; they also *orchestrate* the global process of value and wealth creation and capture. It is time to consider what this orchestration entails and hence expand beyond internalisation theory to a theory of orchestration that can explain more phenomena than the existing toolkit.

The next section critically examines key conceptual foundations of, and extant perspectives on, the theory of the MNE. The subsequent section pays particular attention to limitations of internalisation in all its variants. We then discuss developments that call for a new, more appropriate conceptual lens, and propose that orchestration theory can fill this role. In contrast to the focus of internalisation theory on the choice of modality of cross-border operations, orchestration theory aims to address the wider issue of the entrepreneurial process of creation and co-creation of organizations, markets, (business) ecosystems and institutions—in short, value and wealth—across borders, with an eye to capturing such co-created value in a sustainable way. Co-creation implicates complementarities, co-opetition, open innovation, and hence orchestration. A focus on orchestration helps address a major lacuna of extant theory, namely, that of delineating what is distinct in IB as compared to the (internalisation) theory of the national firm (Boddewyn and Pitelis, 2009). Orchestration theory provides different predictions than internalisation theory, and it is better aligned to new theoretical developments and the strategy and actions of today's real-life MNEs. The final section provides discussion and concluding remarks, as well as policy implications.

II. Conceptual Foundations of—and Contributions to—the Theory of the MNE

The genesis and development of the core foundations of the theory of the MNE lie in economics, particularly industrial economics and the theory of the firm. Early works on international production and the MNE, especially those by Penrose (1956) and Dunning (1958), acknowledged the significance of the MNE and international production, but failed to address the issue of why international operations should take place within an organizational hierarchy rather than through the use of alternative modalities, notably exports and/or licencing. Stephen Hymer (1960/1976) helped found the theory of the MNE—and also IB as a new field (Dunning and Pitelis, 2008)—by posing and addressing this key question. He claimed that the pursuit of profits by firms established and growing in their developed home nations would eventually motivate them to consider undertaking exports, licensing, franchising and/or foreign direct investment (FDI). These cross-border **modalities** had their own advantages and disadvantages, but, on balance, Hymer thought FDI was superior because it afforded the firm control of operations plus a presence on the ground and the degree of influence that went with it (Pitelis and Teece, 2010). For Hymer, this superior control allowed firms to achieve simultaneously three things. First was to reduce Rivalry (R) in international markets. Second was to exploit their monopolistic Advantages (A) by leveraging them in-house, that is, by internalising them (I), instead of doing so through the price mechanism (the market). Third was that FDI also had the potential benefit of risk diversification (D) through operating in more than one country. Hymer felt that diversification was less important than the other two because it did not entail control of operations and production (Hymer, 1960/1976: 25). Overall, Hymer's *RAID*-based approach helped explicate the MNE and FDI as well as (in his subsequent Marxist phase) why the MNE was able to literally RAID developing countries (Hymer, 1970, 1972).

Hymer saw the internalisation of advantages as overcoming market failures such as the appropriation of the advantages by rivals and even the creation of new rivals potentially entailed from the licencing of technology and other resources to third parties. In a 1968 article published in French, he also saw internalisation as a means of avoiding the potentially high costs of market transactions. These included instances of 'bilateral interdependencies' (popularised later by Oliver Williamson, 1975), as well as the relative slowness and inefficiency of inter-firm transfers of knowledge. The benefits of FDI went some way toward explaining both the existence of the MNE and why MNEs were able to out-compete locally-based rivals in foreign countries, despite the alleged inherent disadvantages or the 'liability' of being foreign (Hymer, 1960/1976, 46; Zaheer, 1995).

Subsequent development of the theory of FDI and the MNE focused on the Advantages and, in particular, their Internalisation (AI). Contributions from Buckley and Casson (1976), Teece (1976, 1977), Rugman (1980), Williamson (1981), Dunning (1998) and Kogut and Zander (1993) explored the various reasons why intra-firm exploitation of advantages was preferable to the exploitation of advantages through market-based operations. Buckley and Casson (B&C) and Williamson focused on transaction costs resulting either from the public goods nature of intangible intermediate assets in the case of B&C, or from 'asset specificity' (effectively the co-specialisation of investments) in the case of Williamson. Teece (1976) focused on the differential cost of technology transfer intra- versus inter-country. Hennart (1982) focused on the superior ability of firms to coordinate and manage foreign resources, including labour, and Kogut and Zander (1993) on the differential benefits of intra-firm technology transfer. Dunning's (1980) eclectic theory and later his Ownership, Location, Internalisation (OLI) paradigm, generalized the Hymerian and B&C contributions in terms of the three sets of O, L and I advantage, all of which should, in his view, be present in order to explain FDI and the MNE. In the OLI framework, ownership advantages involve more than the 'monopoly' advantages of Hymer.

Over time, the Rivalry element of Hymer's theory was gradually almost forgotten in IB, except in a few works such as Vernon (1966, 1979), Graham (1978), and Buckley and Casson (1998). This is a challenge for numerous reasons, not least because rivalry can be a reason why firms internalise. As highlighted for example in the work of Porter (1980), a reason for both horizontal and vertical integration (internalisation) can be the reduction of the forces of competition. That Porter's approach continues to command respect in strategy, including IB, without recognition that his views reflect an alternative to 'internalisation' theory, arguably points to a major limitation of the transaction costs focus of the latter.

The Diversification of risk idea has also not been very influential, although it was championed by, among a handful of others, Alan Rugman (1980). This could be partly due to a widespread idea that shareholders can diversify risk by themselves, and therefore there is no benefit to owners for firms to do this (e.g., Porter, 1987). The possibility can also be noted that, after investments have been made in all the 'safer' countries, further diversification might actually reduce efficiency. That Hymer himself did not afford Diversification equal status to R and AI, might have played a role, too. Delios and Beamish (1999) and Qian et al. (2008) have provided extensive accounts of debates on this issue. For our purposes it is worth noting that diversification of risk through cross-border expansion, can be an additional reason for 'internalisation'.

Although the term 'internalisation' is usually linked to the transaction costs variants of the theory, possibly reflecting the influence of Coase (1937) and Williamson (1975) outside IB and B&C and Dunning within it, it is clearly the case that all the aforementioned theories deal with the question why and when companies undertake activities in-house as opposed to through market-based operations. Hence they are all internalisation theories.

In terms of their precise explanandum, nearly all 'internalisation' scholars focused on explicating FDI and the MNE, as opposed to the internationalisation of production as a whole. Clearly internalisation definitionally implies internationalisation when applied to cross-border operations, but internationalisation is a broader concept. Vernon's (1966, 1979) 'product-life-cycle' (PLC) approach, which emphasised the role of inter-firm rivalry, and Dunning's OLI, with its analysis of location, are important examples of scholars taking a wider view. So is the Rugman/Verbeke (2001) Firm Specific Advantages (FSAs)/Country Specific Advantages (CSAs) approach, which accounts explicitly for different countries and their relative advantages. Caves' (1979) classic text afforded a significant role to international rivalry, while Vernon and Dunning also considered elements of FDI evolution and dynamics, which were mostly absent from the original versions of transaction costs-based internalisation theories. So did the Uppsala/Scandinavian school (e.g., Johanson and Vahlne, 1977) whose 'stages' approach aimed to explicate the choice of location by MNEs partly in terms of familiarity and 'psychic distance' of foreign markets.

III. Limitations of Internalisation Theory

In this section, we discuss some of the concepts that have been largely overlooked by scholars of internalisation. It has been suggested that internalisation theory is in need of becoming more dynamic and entrepreneurial, and more firmly rooted in history, learning, and capabilities (Doz, 2004; Jones and Pitelis, 2015, Teece, 2016). A relatively early critique by Macharzina and Engelhard (1991) provided a grim picture of IB as a field standing between a decaying economics–based tradition and an exciting new managerial-based one. They emphasised the need for a firm-specific strategic decision-based approach that looked not only at transaction costs but also power and culture and that recognised firm heterogeneity, sequencing and proactive anticipatory thinking. They provided examples of a proposed Gestalt approach to IB strategies (GAINS)—which looked at different archetypes (gestalts) of MNEs. However, their call for a more holistic approach was mostly ignored—at a cost to IB. Our own approach has a similar focus and zeroes in what we call the *new MNE*—another gestalt—which is an entrepreneurial focal firm that seeks to capture co-created value by purposefully engaging with and shaping the value creation and co-creation process in its entirety at home and across borders. The nature and essence of this new species entails much more than internalisation. First is the role of human agency and entrepreneurship. As applied to the case of the MNE, entrepreneurship has received limited attention in internalisation theory (see Doz, 2004; Oviatt and McDougall, 1994; Jones and Pitelis, 2015; Teece, 2016). The same is true of intrapreneurship, particularly in terms of the important question of leveraging MNE subsidiary skills and competencies and how this varies with the degree of autonomy versus central control (Hedlund, 1986; Birkinshaw, 1997a, 1997b; Birkinshaw and Hood, 1998, 2000; Eden, 1991; Yamin and Forsgren, 2006; Papanastassiou and Pearce, 2009).

As already noted, market power, control and rivalry, while perhaps overstated as a cause of FDI in Hymer, cannot simply be ignored by internalisation scholars. Value capture involves by definition a degree of market power as Porter (1980) and Penrose (1959) among others have aptly shown. Creation and co-creation without the ability to capture a share of the value created is likely to be little more than wishful thinking (Pitelis and Teece, 2010). The theory of the MNE—like IB generally—remains a champion of the efficiency (seen as antithetical to power) aspects of international direct investment at a time when governments and peoples worldwide are speaking out against tax avoidance and other less savoury aspects of the operations of MNEs, as well as the increasing global reach and power of the new high-tech giants.

While there has long been a literature on transfer pricing and the tax strategies of MNEs in the finance literature, it has found scant echoes among MNE internalisation theories. Internalisation's exclusive focus on efficiency diverts attention from the analysis of the impact of the MNE on economic, social and environmental sustainability. This situation can continue only at a cost for IB scholarship and indeed for the reputation and even the soul of the field. There are sufficient reasons and empirical evidence in favour of bringing rivalry and (market) power back in (Clougherty et al., 2017).

In addition to underplaying rivalry and competition, internalisation theory downplays the role of cooperation. Inter-firm collaboration has become a vital aspect of national and international strategy and operations. Williamson's Transaction Cost Economics (TCE) acknowledged the existence of 'hybrids', such as joint ventures and strategic alliances, existing somewhere between markets and hierarchies in terms of control. But, perhaps due to its awkward fit with the main thrust of TCE, it downplayed the often huge significance of complementarities and stable relations with complementors such as suppliers and customers. This implicates resource and capability access. To that effect, resource and capability-based theories have proven rather more relevant than internalisation in explicating inter-firm cooperation (Richardson, 1972; Pitelis, 2012; Teece, 2016). While there exist numerous studies on inter-firm cooperation from a transaction cost perspective, they mostly explicate the advantages of alliances in absolute terms and not in comparable governance terms, as compared, for example, to 'integration' (Pitelis, 2012). Internalisation theory is not designed to provide a complete explanation why 'ally' is often selected over 'integrate' (internalise).

Another gap in internalisation theory involves its core concern with cross-border modalities. The need is for a better explanation not only of the choice by the MNE between internalisation and externalisation, including outsourcing and offshoring—and, more recently, reshoring. Both outsourcing and re-shoring are about externalisation and it remains the case that exogenous changes in transaction costs can help explain such phenomena. The key question however is the extent to which such an explanation suffices. For example, could it be that changes in transaction costs are in part endogenous to MNE strategy? If so the explanation of modalities would entail entrepreneurial agency, strategy and orchestration. Similar considerations apply to a variant of externalisation, which is Open Innovation (OI). OI is very popular these days both in theory and in practice. It basically involves firms and MNEs profiting from externalising aspects of their innovation process (Chesbrough, et al., 2006, 2014). Hymer had predicted externalisation in cases where firms could maintain control without the burden of ownership (Pitelis, 1991). However, we are aware of no internalisation theory-based explanation of the collaborative—often co-opetitive—phenomenon of open innovation. This may not be too surprising as OI combines two of internalisation theory's key weaknesses—

namely externalisation and complementarities. Clearly more is needed here. We submit that a deeper understanding of co-opetition, open innovation, co-specialisation and other developments in the strategic management and entrepreneurship literature can serve to enrich IB.

While authors from Hymer through Penrose to the Uppsala school had touched upon the theme of learning, it became more popular following the emergence of the resource-based and knowledge-based views of the firm (Teece, 1977, 1982; Wernerfelt, 1984; Barney, 1991; Peteraf, 1993; Mahoney, 2005). Learning-based ideas have been used to provide more dynamic interpretations and updates of Dunning's OLI (e.g., Cantwell and Narula, 2001; Pitelis, 2007; Pitelis and Verbeke, 2007), and to explore linkages between theories, such as Penrose and the Scandinavian approach (Steen and Liesch, 2007). Learning, however, is mostly absent in internalisation theory. This is important because learning by doing for example could help moderate the make-or-buy calculus.

Other challenges of internalisation concern the concepts of bounded rationality, reliability, uncertainty, path dependence, and conflictual behaviour implied by works such as Cyert and March (1963/1992), Nelson and Winter (1982), and Simon (1991). Internalisation theory as it is presently constituted is ill-suited to address these issues, not least because of its adherence to a rational, positivist, choice-theoretic approach which treats the MNE as an intra-organizational conflict-free zone.

Another important issue is that internalisation analysis typically occurs in a given exogenous context. This ignores how entrepreneurs and entrepreneurial managers within MNEs help shape, re-shape, co-shape, create and co-create the contexts within which they operate, including markets, business ecosystems and even the institutional and regulatory environment (Pitelis and Teece, 2010). More generally, internalisation theory ignores the demand side of the economy (Jones and Pitelis, 2015).

In summary, while internalisation theory was designed to address the make/buy (and to a much lesser extent the ally) decision of firms investing across borders, much more is implicated in the actions and strategies of modern MNEs. While the central insights of internalisation theory retain their power, they have lost much of their explanatory ability in a fast-changing world in which MNEs have to do much more than make or buy. The theory must not only reach back into its past to revisit ideas of advantage and control pioneered by Hymer, Dunning, and others, it must also leap forward with ideas developed in adjacent fields, particularly strategic management and entrepreneurship. This is our aim in the remainder of this paper.

IV. Beyond Internalisation to a Theory of Orchestration

The aim of strategic decisions by firms, including their modalities of internationalisation, is to capture sustainable value from perceived value-creating advantages in whichever way they legitimately can (Pitelis and Teece, 2009; 2010). This implicates more than the make/buy/ally decision.

As discussed above, the shifting global landscape and important innovations in MNE practices and strategies point to the need to expand or replace internalisation theory with a richer alternative. The decisions of many MNEs today are based on learning, anticipatory change and proactive behaviour (Pitelis, 2007, Pitelis and Verbeke, 2007), and it has long been recognised that internalisation theories of the MNE are not well designed to account for these activities (Doz, 2004). Our proposal here is to replace internalisation theory with a theory of orchestration that envelopes internalisation theory and its varieties.

The concept of orchestration is rather novel but it has gradually been gaining momentum in strategy and, in part, in IB. For instance, the concept of 'Asset orchestration' (sometimes called 'resource orchestration') is a concept that has steadily gained currency in the strategic management literature (e.g., Sirmon et al., 2009), and is associated closely with the dynamic capabilities (DCs) framework (Teece, 2007, 2014). Asset orchestration has been described as 'the ability to combine selected technologies, individuals, and other resources in new products and processes regardless of location and across organizational boundaries' (Lessard, Teece, and Leih, 2016: 214). The assets to be orchestrated moreover can be inside or outside the firm (Teece, 2014: 23). As with musical instruments in an orchestral score, new assets enter at some points and old ones drop out (Teece, 2007: 1320). The conductor must help the orchestra blend and work together as a harmonious whole, achieving what is known in the organizational literature as congruence (Nadler and Tushman, 1980). In short, orchestration is a primary function of managers in—and, arguably, a *sine qua non* of—the MNE.

The assets to be orchestrated can be intangible as well as physical. MNEs often adopt and maintain, for example, different business models in different locations. Thus Starbucks uses alliances in some countries, FDI in others and, in many cases, both in the same country, requiring managers to manage each modality efficiently and to respond appropriately as issues arise in each country-modality sub-group. Modalities also change over time. The ultimate franchiser, McDonald's, entered the Russian market with vertically integrated FDI then moved gradually to increased outsourcing and franchising as the local supply base became more reliable (Pitelis and Teece, 2010). The rhythm of this evolution must be correctly paced.

The orchestra metaphor is useful for its image of a conductor on the one hand and a large organization on the other. Much as a conductor must build an orchestra into a cohesive whole made of up of specialised sub-groups, an astute top management team must provide a vision and culture that brings greater clarity and coherence to the activities of the MNE. When serious problems arise, it may prove easier to change the conductor (i.e., parts or all of the top management team) than it is to reshape the orchestra/organization.

All the same, the metaphor of a conductor leading an orchestra should not be taken too far. For example, MNEs must function in multiple environments awash in deep uncertainty (Teece, Peteraf, and Leih, 2016). Flexible responses to unexpected shifts in the environment require an organization to perform sometimes as jazz improvisers rather than as an orchestra performing from a score (Crossan et al., 1996). But improvisation, when it is part of the organizational culture, can be an intentional component of orchestration.

Orchestration implicates more than assets and capabilities. Dhanaraj and Parkhe (2006) saw orchestration as comprising knowledge mobility, network stability and appropriability. They looked at how hub (which we call focal) firms can orchestrate the activities of an innovation network aimed at value creation and capture without (or with more limited) involvement of hierarchy (hence of 'internalisation). They adopted an agency-structure duality approach that views network players as active agents. Wallin (2006) employed the concept of 'business orchestration' and suggested that strategic leaders/orchestrators can be not only conductors but also auctioneers, promoters and indeed architects. He saw the ability of a strategic leader to 'orchestrate' a whole ecosystem with an eye to creating business value as a key strength for competing in the digital era.

These views are compatible with the concept of focal MNEs serving as orchestrators of the entire 'system architecture' (Gereffi, Humphrey, and Sturgeon, 2005; UNCTAD, 2013), creating and co-creating organizations, markets and supporting business ecosystems—hence value and wealth—within countries and across borders (Pitelis and Teece, 2010). Such orchestration entails the creation and co-creation of the very context within which make-or-buy decisions can be taken (Jones and Pitelis, 2015). It is only reasonable that this context co-creation takes place in a way that is perceived to serve the interests of the focal decision maker, hence rendering partly endogenous the make-buy decision. All these concepts are alien to internalisation theory.

Besides value creation and co-creation, a key part of orchestration involves strategies for value capture. Value creation and value capture are both key parts of the business model (Teece, 2010). Value capture can be achieved in a variety of ways such as through efficiency benefits from transaction cost reductions or through entry deterrence of the Hymer/Porter or the Penrose-resource based type (Pitelis, 2009). Internalisation theory has very little to say on value capture strategies. But the MNE without a coherent value capture strategy is Hamlet without the Prince. MNEs are not meant to be in business purely on philanthropic grounds. They create and co-create value so as to capture as much as possible of the value they and others co-create. This entails more and often different ordinary and dynamic capabilities than those required to decide on make-or-buy given exogenous transaction costs, i.e., the central question of internalisation theory. It remains a mystery how internalisation theory and its narrow scope has become so influential in IB as opposed to in economics where, unlike IB, narrowness is often perceived as an advantage. We do not think this is an advantage in IB. Hence the need for a new theory of orchestration to better describe the new MNE. We pursue these ideas as applied to the case of cross-border expansion and the MNE further below.

Firms can grow by blending internalisation with externalisation, and specialisation with diversification (Kay, 1997). For instance, in the critical area of R&D, firms, especially MNEs, have moved from central labs to global networks to 'open innovation' (Chesbrough, 2003). This requires keeping sufficient in-house R&D to generate proprietary technologies and to maintain the 'absorptive capacity' needed to leverage opportunities created by, or in collaboration with, partners such as universities and other firms. Internalisation theory has trouble accounting for the move from closed to open innovation; in fact, as already noted, we are aware of no internalisation-based approach to it.

At the level of the MNE, orchestration also governs the flow of knowledge in the organization, seeing that new techniques are diffused across subsidiaries and matching technological opportunities with the locations where they can best be leveraged (e.g., Doz, Santos and Williamson, 2001). When CEMEX, for example, discovered that a company it acquired in Spain was successfully using low-cost petroleum coke as a fuel in its kilns, it quickly implemented use of this low-cost alternative fuel in Mexico and elsewhere where the fuel was also available (Lessard, Teece, and Leih, 2016).

As mentioned earlier, asset orchestration is a central component of the dynamic capabilities framework (Teece, 2007, 2014). Transaction cost concerns, the main driver of internalisation, are part of the framework. But far more important are the high-order dynamic capabilities that enable an organization to sense threats and opportunities, seize new business and reconfigure itself so as to create and capture value (Katkalo et al., 2010). Strong dynamic capabilities are also linked to organizational agility, which renders orchestration efforts more effective (Teece, Peteraf, and Leih, 2016).

Orchestration is particularly important across borders because MNEs have become increasingly alert to the systemic nature of their activities at the local level. MNE operations are not a set of isolated, separable elements. Instead, each MNE is an integrated entity embedded simultaneously in a diverse array of local contexts. In a given local context, they may foster the creation of joint value in any number of ways, such as engaging in philanthropy and/or impact investments (O'Donohoe et al., 2010), funding university research, collaborating with rivals, encouraging their employees to set up their own firms, supporting suppliers and more generally being a key member of local business and social ecosystems. These indirect elements of value capture are critical because the blind pursuit of value capture can undermine the sustainability of global wealth creation (Mahoney, McGahan and Pitelis, 2009).

Orchestration theory rightly places emphasis on the need to coordinate activities and knowledge across the MNE's global network, making it a better fit with the unique issues associated with international operations. It requires capabilities aimed at

1. Creating and co-creating organizations
2. Creating and co-creating markets and business ecosystems
3. Putting in place strategies and business models to create, co-create and capture sustainably co-created value
4. Developing and leveraging capabilities to anticipate, sense, seize and reconfigure that allow them to do the aforementioned better than rivals
5. Leveraging complementarities, managing competition with cooperation (co-opetition) and internalisation with externalisation (e.g., open innovation).

It is no exaggeration to say that 'internalisation' theory, when seen in a non-too-expansive way, is only concerned with a sub-part of item 3 above, namely how integration (and sometimes co-operation) strategy—often informed by transaction costs considerations—helps create and capture value (Narula and Verbeke, 2015). Clearly a theory of the MNE, not to mention of IB as a whole, should be more ambitious than that.

An orchestration perspective helps bridge the gaps in internalisation theory noted above in that it readily encompasses both integration (internalisation) and outsourcing (externalisation), with the modality depending on the interactions between the value creation and capture strategy and the capabilities involved rather than (only) on relative transaction costs. For example, an outsourced service, such as customer call centres, may need to be brought in-house if a strategic shift entails improving and leveraging customer contacts (Leih, Linden, and Teece, 2015: 28).

Capitalism as a whole has swung back and forth over the centuries between tendencies toward internalisation and externalisation. While increasing integration was the conventional wisdom of the twentieth century (Chandler, 1962, 1990), capitalism was initially founded on the putting-out system, a form of outsourcing (Williamson, 1985; Marglin, 1974). Over the past 25 years or so, externalisation/outsourcing has grown steadily in significance (Weber, 2017).

Historically, then, the market system has moved from externalisation to internalisation and is returning to externalisation. This involves open innovation and co-opetition (Brandenburger and Nalebuff, 1996). Like with OI, we remain unaware of an internalisation theory-based view of co-opetition.

The greater weight in orchestration theory given to a systemic approach and to complementarities leads naturally to issues of cooperation, competition and their linkages (co-opetition). Firms in general, and MNEs in particular, view their markets more in terms of business ecosystems than as vertical industries (Teece, 2012). Business ecosystems are made up of organizations working together to create and sustain markets and products. Varying degrees of cooperation with peers and providers of complements have become an essential part of doing business, often coexisting with competition. In an international context, this is complicated by cultural and regulatory differences, which places a greater burden on ecosystem orchestration by the MNE than by a national firm.

Learning is also key in orchestration theory. Orchestration theory suggests that MNEs learn which capabilities and business models are best for the capture of co-created value by managing a portfolio. Different combinations of operating modality, value proposition, and cost structure will be suitable in different locations at different times. Effective orchestration involves the recognition of these differences and the diffusion of lessons learned in one location to others in the MNE's network (Teece, 2014).

Orchestration theory also embraces the entrepreneurial function of the MNE (Teece, 2014). Whereas internalisation assumes that markets exist and the firm has only to reduce transaction costs, in orchestration theory (as in actuality) entrepreneurial managers must first seek information about latent consumer demands and technological opportunities, develop a business model for a potential product, make small experiments to verify or fine-tune hypotheses, then create or co-create the market (Pitelis and Teece, 2010). Either in a particular country or on a worldwide basis, entrepreneurial MNE managers must often take risks and stimulate markets for new ideas or products, perhaps also fostering new capabilities at suppliers in order to ensure an adequate source of inputs. Foss et al. (2007) have combined entrepreneurship and transaction costs in a theory of the firm; orchestration theory expands this and extends it to the MNE.

In the international context, orchestration often takes the form of global value chains in which focal orchestrators (MNEs) construct or co-construct and seek to control an entire system architecture that can involve multiple tiers of suppliers and other partners (Gereffi, Humphrey, and Sturgeon, 2005; UNCTAD, 2013). Currently, the key issue for the focal MNE in this context is to capture co-created value in a sustainable way through effective orchestration. MNEs seek some degree of influence/control (for example by leveraging non-inimitable 'bottleneck' assets and capabilities) of the context(s) within which internalisation/externalisation and other strategic decisions take place and in which their resources and capabilities are being developed and leveraged.

To summarize, a key advantage of orchestration theory is that it naturally addresses the issue of what is distinct about the MNE and embeds this in a theory of the firm that encompasses the most prominent features of contemporary business. Among firms, MNEs are uniquely able to identify and leverage international differences and comparative advantages. In orchestration theory, this is part of the 'sensing' and 'seizing' functions of dynamic capabilities. In terms of extant theories, this aspect of orchestration theory relates to the L in Dunning's OLI, the CSA (country specific advantages) in the CSA/FSA (firm specific advantages) of Rugman (Rugman, 1981; Rugman and Verbeke, 2001) and Buckley's (2007) more recent work on the global factory. It places this, moreover, in a unifying context that includes capabilities, learning, cooperation, co-opetition, open innovation, value capture, entrepreneurship and context co-creation, which allows it to explain a wider range of the phenomena that characterise MNE activities today than can internalisation theory.

V. Concluding Remarks and Future Research

The internalisation theory of the MNE—in all its variations—has made significant contributions to MNE scholarship for more than half a century. Now, however, the theory of the MNE requires a richer foundation to capture the nature, essence, strategies and practices of the new MNE. Orchestration theory, with its focus on the wider issue of sustainable capture of co-created value, helps move in this direction.

The key feature of the MNE is that its activities cross national borders. The reality is that internalisation, as such, does not entail any locational analysis. This has forced internalisation-based approaches, such as Dunning's OLI, to add an explicit locational element. In orchestration theory, by contrast, systemic analysis of target markets, domestic and cross-border, is inherent to the theory. Managers are required to monitor and analyse each potential and actual location of the firm's activities in terms of its industrial, human, and consumer resources and how they are changing.

More generally, an orchestration perspective opens the way to a location-sensitive analysis of value capture and value co-creation. Not only is the choice of firm boundaries accounted for, the analysis also captures more of what firms actually do, including identifying opportunities, innovating business models, entering collaborative agreements, and embedding themselves in the fabric of the society. In so doing, MNEs help create and co-create the very market and competitive context in which the choice of cross-border modality takes place (Jones and Pitelis, 2015).

Orchestration theory also helps explain innovations by MNEs that traditional internalisation theory must strain at. These include the adoption by many MNEs of a portfolio of entry modalities, the coexistence of internalisation with externalisation for particular functions, and a combined closed/open innovation approach.

Orchestration theory requires the dynamic capabilities to sense and seize markets and transform the organization accordingly in order to maintain sustainable competitive advantage. The goal is to adopt the right cross-border modality, at the right time, for the right activity in the right place. This points to different predictions than those of internalisation. Take the case of McDonald's in Russia. Faced with an unfamiliar context, they help create and co-create the context by first internalising with the explicit aim to eventually externalise once they had put in place a market and supporting ecosystem of suppliers that they had also helped create (Pitelis and Teece, 2010). Nothing in internalisation theory helps explain let alone predict business ecosystem co-creation and related actions and activities. But these are precisely the predictions from orchestration theory, which views context creation and co-creation and the dynamic capabilities required to achieve this as inherent components of MNE strategy.

In terms of its academic possibilities, orchestration theory opens new avenues to scholars of international business. There is already an expanding body of empirical and theoretical research on the dynamic capabilities of the MNE and, outside IB, on orchestration. Much of this is directly applicable to the positive analysis of MNE decisions by IB researchers. In fact, the MNE is an ideal setting in which to study orchestration because the process of sustainably capturing co-created value increasingly requires a systemic approach, dynamic capabilities and global reach. To conclude, internalisation theory has not lost its context-specific validity. Rather, it is high time to integrate it in a more holistic approach to the activities and decisions of the MNE. Orchestration theory and the dynamic capabilities framework can provide such an approach.

References

Barney, J. B. 1991. Firm resources and sustained competitive advantage. *Journal of Management*, 17, 99–120.

Birkinshaw, J. 1997a. Entrepreneurship in multinational corporations: the characteristics of subsidiary initiatives. *Strategic Management Journal*, 18, 207–229.

Birkinshaw, J. 1997b. How multinational subsidiary mandates are gained and lost. *Journal of International Business Studies*, 27, 467–496.

Birkinshaw, J. and Hood, N. 1998. Multinational subsidiary evolution: capability and charter change in foreign-owned subsidiary companies. *Academy of Management Review*, 23, 773–775.

Boddewyn, J. and Pitelis, C. N. 2009. In search of the meanings and Uses of 'M'and 'F'in the economic theories of the MNE and FDI,'. *University of Cambridge and City University New York: mimeo*.

Brandenburger, A. M. and Nalebuff, B. J. 1996. *Co-opetition*. New York: Currency Doubleday

Birkinshaw, J. and Hood, N. 2000. Characteristics of foreign subsidiaries in industry clusters. *Journal of International Business Studies*, 31, 141–157.

Buckley, P. J. 2007. The strategy of multinational enterprises in the light of the rise of China. *Scandinavian Journal of Management*, 23(2), 107–126.

Buckley, P. J. and Casson, M. C. 1976. *The Future of Multinational Enterprise*. London: Macmillan.

Buckley, P. J. and Casson, M. C. 1998. Analyzing foreign market entry strategies: extending the internalization approach. *Journal of International Business Studies*, 29, 539–562.

Cantwell J., and Narula, R. 2001. The eclectic paradigm in the global economy. *International Journal of the Economics of Business*, 8(2), 155–172.

Chandler, A. D. 1962. Strategy and Structure: Chapters in the History of the Industrial Enterprise. Cambridge: MA: The MIT Press.

Chandler, A. D. 1990. *Scale and Scope: The Dynamics of Industrial Capitalism*. Cambridge, MA: Belknap Press.

Chesbrough, H. 2003. Open Innovation: The New Imperative for Creating and profiting from Technology. Boston, MA: Harvard Business School Press.

Chesbrough, H., Vanhaverbeke, W. and West, J. eds., 2006. *Open innovation: Researching a new paradigm*. Oxford University Press on Demand.

Chesbrough, H., Vanhaverbeke, W. and West, J. eds., 2014. *New frontiers in open innovation*. Oxford: Oxford University Press.

Clougherty, J. A., Kim, J. U., Skousen, B. R. and Szücs, F. 2017. The foundations of international business: cross-border investment activity and the balance between market-power and efficiency effects. *Journal of Management Studies*, 54(3), 340–365.

Coase, R. 1937. The nature of the firm. *Economica*, 4(16), 386–405.

Crossan, M. M., Lane, H. W., White, R. E. and Klus, L. 1996. The improvising organization: where planning meets opportunity. *Organizational Dynamics*, 24(4), 20–35.

Cyert, R. M. and March, J. G. 1963/1992. *A Behavioral Theory of the Firm* (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.

Delios, A. and Beamish, P. W. 1999. Geographic scope, product diversification, and the corporate performance of Japanese firms. *Strategic Management Journal*, 20, 711–727.

Doz Y. 2004. Toward a managerial theory of the MNC. *Advances in International Management*, 16, 3–30.

Doz, Y., Santos, J. and Williamson, P. (2001). *From Global to Metanational: How Companies Win in the Knowledge Economy*. Boston, MA: Harvard Business School Press.

Dhanaraj, C. and Parkhe, A., 2006. Orchestrating innovation networks. *Academy of Management Review*, *31*(3), 659-669.

Dunning, J. H. 1958. *American Investment in British Manufacturing Industry*. London: Allen & Unwin.

Dunning, J. H. 1980. Toward an eclectic theory of international production: some empirical tests. *Journal of International Business Studies*, 11(1), 9–31.

Dunning, J. H. 1998. Location and the multinational enterprise: a neglected factor? *Journal of International Business Studies*, 29(1), 45–66.

Dunning, J. H. and Pitelis, C. N. 2008. Stephen Hymer's contribution to international business scholarship: an assessment and extension. *Journal of International Business Studies*, 39, 167–176.

Foss, N. J. 1996. Knowledge-based approaches to the theory of the firm: some critical comments. *Organization Science*, 7, 470–476.

Foss, K., Foss, N. J., Klein, P. G. and Klein, S. K. 2007. The entrepreneurial organization of heterogeneous capital. *Journal of Management Studies*, 44(7), 1165–1186.

Gereffi, G., Humphrey, J. and Sturgeon, T. 2005. The governance of global value chains. *Review of International Political Economy*, 12(1), 78–104.

Ghemawat, P. 2007. *Redefining Global Strategy*. Boston, MA: Harvard Business School Press.

Graham, E. M. 1978. Transatlantic investment by multinational firms: a rivalistic phenomenon? *Journal of Post-Keynesian Economics*, 1(1), 82–99.

Hennart, J. F. 1982. *A Theory of Multinational Enterprise*. Ann Arbor, MI: University of Michigan Press.

Hedlund, G. 1986. The hypermodern MNC: a heterarchy? *Human Resource Management* 25, 9–36.

Hymer, S. H. 1960/1976. *The International Operations of National Firms: A Study of Direct Foreign Investment*. Cambridge, MA: The MIT Press.

Hymer, S. 1968. The large multinational 'corporation': An analysis of some motives for international integration of business. *Revue Economique,* 19 (6), 949-973.

Hymer, S. H. 1970. The efficiency (contradictions) of multinational corporations. *American Economic Review Papers and Proceedings*, 60, 441–448.

Hymer, S. H. 1972. The multinational corporation and the law of uneven development. In *Economics and World Order*, ed. J. N. Bhagwati. London: Macmillan.

Johanson, J. and 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, 23–31.

Jones, G. and Pitelis, C. 2015. Entrepreneurial imagination and a demand and supply-side perspective on the MNE and cross-border organization. *Journal of International Management*, 21(4), 309–321.

Katkalo, V. S., Pitelis, C. N. and Teece, D. J., 2010. Introduction: On the nature and scope of dynamic capabilities. *Industrial and Corporate Change*, *19*(4), 1175-1186.

Kay, N. M. 1997. *Pattern in Corporate Evolution*. Oxford: Oxford University Press.

Kogut, B. and Zander, U. 1992. Knowledge of the firm, combinative capabilities, and the replication of technology. *Organization Science*, 3(3), 383–397.

Kogut, B. and Zander, U. 1993. Knowledge of the firm and the evolutionary theory of the multinational corporation. *Journal of International Business Studies*, 24, 625–645.

Leih, S., Linden, G., and Teece, D.J. 2015. Business model innovation and organizational design: a dynamic capabilities perspective. In Foss, N.J., Saebi, T. (Eds.), *Business Model Innovation: The Organizational Dimension*. Oxford UK: Oxford University Press, 24–42.

Lessard, D., Teece, D. J. and Leih, S. 2016. The Dynamic Capabilities of Meta-Multinationals. *Global Strategy Journal*, 6(3), 211–224.

Macharzina, K. and Engelhard, J. 1991. Paradigm shift in international business research: From partist and eclectic approaches to the GAINS paradigm. *Management International Review*, 31, 23-43.

Marglin, S. A. 1974. What do bosses do? *Review of Radical Political Economics* 6, 60-112.

Mahoney, J. T. 2005. *Economic Foundations of Strategy*. Thousand Oaks, CA: Sage Publications.

Mahoney, J. T., McGahan, A. M., and Pitelis C. N. 2009. The interdependence of private and public interests. *Organization Science*, 20, 1034–1052.

Nadler, D. A. and Tushman, M. L. 1980. A model for diagnosing organizational behavior. *Organizational Dynamics*, 9(2), 35–51.

Narula, R. and Verbeke, A., 2015. Making internalization theory good for practice: The essence of Alan Rugman's contributions to international business. *Journal of World Business*, *50*(4), 612-622.

Nelson, R. and Winter, S. 1982. *An Evolutionary Theory of Economic Change*. Cambridge, MA: Harvard University Press.

O'Donohoe, N., Leijonhufvud, C., Saltuk, Y., Bugg-Levine, A. and Brandenburg, M. 2010. Impact Investments: An emerging asset class. New York: JPMorgan Chase & Co., The Rockefeller Foundation and Global Impact Investing Network. https://www.jpmorganchase.com/corporate/socialfinance/document/impact_investments_nov2010.pdf. Accessed 21 February 2018.

Oviatt, B. M. and McDougall, P. P. 1994. Toward a theory of international new ventures. *Journal of International Business Studies*, 25, 45-64.

Papanastassiou, M. and Pearce, R. 2009. The Strategic Development of Multinationals; Subsidiaries and Innovation. London: Palgrave Macmillan.

Penrose, E. T. 1956. Foreign investment and the growth of the firm. *Economic Journal*, 66, 220–235.

Penrose, E. T. 1959/1995. *The Theory of the Growth of the Firm* (3rd ed.). Oxford: Oxford University Press.

Peteraf, M. A. 1993. The cornerstones of competitive advantage: A resource based view. *Strategic Management Journal*, 14, 479–488.

Pitelis, C. N. 1991. *Market and Non-market Hierarchies: Theory of Institutional Failure*. Oxford, UK: Blackwell Publishing.

Pitelis, C. N. 2007. Edith Penrose and a learning-based perspective on the MNE and OLI. *Management International Review*, 47, 207–220.

Pitelis, C. N. 2009. The co-evolution of organizational value capture, value creation and sustainable advantage. *Organization Studies*, *30*(10), 1115-1139.

Pitelis, C. 2012. Clusters, entrepreneurial ecosystem co-creation, and appropriability: a conceptual framework. *Industrial and Corporate Change*, 21(6), 1359–1388.

Pitelis, C. N. and Teece, D. J. 2009, The nature and essence of the firm. *European Management Review*, 6, 5–15.

Pitelis, C. N. and 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.

Pitelis, C. and Verbeke, A. 2007. Edith Penrose and the future of the multinational enterprise: new research directions. *Management International Review*, 47(2), 139–149.

Porter, M. E. 1987. From competitive advantage to corporate strategy. *Harvard Business Review*, May/June, 43–59.

Porter, M. E. 2008. *Competitive strategy: Techniques for analysing industries and competitors*. Simon and Schuster.

Qian, G., Li, L., Li, J. and Qian, Z. 2008. Regional diversification and firm performance. *Journal of International Business Studies*, 39, 197–214.

Richardson, G. B. 1972. The organisation of industry. *Economic Journal*, 82(327), 883-896.

Rugman, A. M., 1975. Motives for foreign investment: The market imperfections and risk diversification hypotheses. *Journal of World Trade*, *9*(5), 567-573.

Rugman, A. M. 1980. Internalization as a general theory of foreign direct investment: a reappraisal of the literature. *Weltwirtschaftliches Archiv*, 116, 365–379.

Rugman, A. M. 1981. *Inside the Multinationals: The Economics of Internal Markets*. New York: Columbia University Press.

Rugman, A. M. 2005. *The Regional Multinationals*. Cambridge: Cambridge University Press.

Rugman A. M., and Verbeke A. 2001. Subsidiary-specific advantages in multinational enterprises. *Strategic Management Journal*, 22(3), 237–250.

Simon, H. A. 1991. Organizations and markets. *Journal of Economic Perspectives*, 5(2), 25-44.

Sirmon, D. G., Hitt, M. A., Ireland, R. D. and Gilbert, B. A. 2009. Contingencies within dynamic managerial capabilities: interdependent effects of resource investment and deployment on firm performance. *Strategic Management Journal*, 30(13), 1375–1394.

Steen, J. T. and Liesch, P. W. 2007. A Note on Penrosean Growth, resource bundles and the Uppsala model of internationalisation. *Management International Review*, 47, 1–14.

Teece, D. J. 1976. *The Multinational Corporation and the Resource Cost of International Technology Transfer*. Cambridge, MA: Ballinger.

Teece, D. J. 1977. Technology transfer by multinational firms: the resource cost of transferring technological know-how. *Economic Journal*, 87, 242–261.

Teece, D. J. 1982. Towards an economic theory of the multiproduct firm. *Journal of Economic Behavior and Organization*, 3, 39–63.

Teece D. J. 2007. Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28, 1319–1350.

Teece D. J., 2010. Business Models, Business Strategy and Innovation. *Long Range Planning, 43*, 172-194.

Teece, D. J. 2012 Next-generation competition: new concepts for understanding how innovation shapes competition and policy in the digital economy. *Journal of Law, Economics, and Policy*, 9 (1), 97–118.

Teece, D. J. 2014. A dynamic capabilities-based entrepreneurial theory of the multinational enterprise. *Journal of International Business Studies*, 45, 8–37.

Teece, D., Peteraf, M. and Leih, S. 2016. Dynamic Capabilities and Organizational Agility. *California Management Review*, 58(4), 13–35.

Vernon, R. 1966. International investment and international trade in the product cycle. *Quarterly Journal of Economics*, 80, 190–207.

Vernon, R. 1979. The product cycle hypothesis in a new international environment. *Oxford Bulletin of Economics and Statistics*, 41, 255–267.

Wallin, J., 2006. *Business Orchestration: Strategic Leadership in the Era of Digital Convergence*. John Wiley & Sons.

Wernerfelt, B. 1984. A resource-based view of the firm. *Strategic Management Journal*, 5, 272–280.

Williamson, O. E. 1975. *Markets and Hierarchies: Analysis and Antitrust Implications*. New York: Free Press.

Williamson, O. E. 1981. The modern corporation: origins, evolution, attributes. *Journal of Economic Literature*, 19, 1537–1569.

Williamson, O. E. 1985. *The Economic Institutions of Capitalism*. New York: Free Press.

UNCTAD. 2013. Global Value Chains and Development. Investment and Value Added Trade in the Global Economy. A Preliminary Analysis. New York and Geneva: United Nations.

Weber, L. 2017. The end of employees. *wsj.com*, Feb. 2. https://www.wsj.com/articles/the-end-of-employees-1486050443 (accessed May 30, 2017).

Yamin, M. and Forsgren, M. 2006. Hymer's analysis of the multinational organization: Power retention and the demise of the federative MNE. *International Business Review*, 15, 166–179.

Zaheer, S. 1995. Overcoming the liability of foreignness. *Academy of Management Journal*, 38, 341–363.