The Eclectic Paradigm in the Global Economy

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Abstract

Economic globalisation, and the subsequent growth of global and alliance capitalism have fundamentally affected the way in which MNC activities are undertaken and organised. The various contributions to this special issue have evaluated the eclectic paradigm in the global economy, and its validity as a theoretical basis to understand these developments. This paper places these contributions into context.

We highlight that globalisation has increased the interactive dynamics between, and amongst 'O', 'L' and 'T' characteristics at firm, industry and country level, in at least two ways. First, a knowledge-based society has meant that the efficient exploitation of MNCs' ownership advantages and the continual need to augment and sustain their competitive advantages is ever more crucial, leading to a complex interdependence between ownership and location advantages. Second, globalisation has affected how MNCs seek to coherently organise their cross-border activities in response to changing boundaries of the firm. We find that the paradigm continues to provide a framework which facilitates how best to synthesise relevant complementary theories, or how to choose between potentially competing theories, and helps to operationalise them.

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1. **Introduction**

The eclectic paradigm has been the leading explanation for the growth of multinational activity over the past two decades. Its broad appeal has made it a mainstay in explaining various sectors and types of activities. Its simplicity and general nature makes it compatible with a number of schools of economic and managerial thought. It has been applied by management scholars, economic geographers, evolutionary economists, resource-based theorists and development economists, to mention a few. It has also been the object of considerable criticism.

Yet it faces fresh challenges to its continued applicability in the light of new developments associated with the process of globalisation. Economic globalisation, and the subsequent growth of global and alliance capitalism have fundamentally affected the way in which international and domestic business activities are undertaken and organised. Some have pointed to its limited appeal in predicting trends and developments. New forms of activity such as asset-augmenting investment (by multinational corporations [MNCs] of all nationalities and varying levels of multinationality), in a variety and combination of modes of operation such as alliances and outsourcing, have required new ideas and approaches to be integrated within the eclectic paradigm.

The franchise of this special issue is to systematically evaluate how the eclectic paradigm has responded to these developments, from a wide variety of perspectives. Contributors were specifically given a remit to discuss whether and how the Ownership-Location-Internalisation (OLI) framework continues to be applicable to the perspective of their own particular analytical concerns. Has the explanatory usefulness of the paradigm diminished? To what extent is it a useful tool from the perspective of (for instance) trade theory, economic geography, evolutionary economics, resource based theory or strategic management?

2. **The continuing usefulness of the OLI framework with the evolution of the MNC**

The eclectic paradigm grew out of a desire to synthesise elements from the transaction cost (internalisation) and market power theories of the individual firm in
its relationship to markets with macroeconomic approaches to international production (such as the original product cycle model) at the country level. However, it was not intended to be a complete synthesis as it is not possible to fully encompass a set of theories which may address rather different questions or rely on different views of the world. It was therefore soon acknowledged that it was not itself another theory. It was instead intended to provide an overall analytical framework for empirical investigations which would draw the attention of the analyst to the most important theories for the problem at hand. It also provided a framework for a comparison between theories, by establishing the common ground or the points of contact between them, and clarifying the relationship between different levels of analysis and the different questions which theorists have been concerned to address. Thus, for example, internalisation theory may be the most relevant under certain circumstances or when answering certain kinds of questions (such as those related to backward vertical integration into resource extraction), while the determinants of the competitive strategy of firms in their final product market may be more pertinent in other cases (such as issues of technological competition or cooperation).

These points have sometimes been missed by commentators on and especially by critics of the eclectic paradigm, who have tended to subsume the generality of its framework into one particular theoretical line of argument (some have treated it as a mere extension of transaction cost or internalisation theory) or to one particular level of analysis (such as the firm level); or who at the other extreme suppose that it somehow amounts to an analytical fudge since it doesn't firmly 'nail its theoretical colours to the mast'. Rather, the eclectic paradigm provides a means of assessing evidence on foreign-owned production in a variety of empirical contexts, as a means of determining which theories and which level of analysis are most appropriate to any given set of circumstances. The paradigm is not therefore a substitute for making judgements over how best to synthesise relevant complementary theories, or how to choose between potentially competing theories. Instead, it provides a framework which facilitates just such judgements, and helps to operationalise them.

In the eclectic paradigm it is contended that multinational corporations (MNCs) have competitive or 'ownership' advantages vis-à-vis their major rivals, which they utilise in establishing production in sites that are attractive due to their 'location' advantages (Dunning 1977, 1979, 1988, 1995). According to Dunning, two types of competitive advantage can be distinguished; the first is attributable to the
ownership of particular unique intangible assets (such as firm-specific technology), and the second is due to the ownership of complementary assets (such as the ability to create new technologies, or the ability to effectively coordinate cross-border activities). MNCs retain control over their networks of assets (productive, commercial, financial and so forth) because of the 'internalisation' advantages of doing so. Internalisation advantages arise both from the greater ease with which an integrated firm is able to appropriate a full return on its ownership of distinctive assets such as its own technology, as well as directly from the coordination of the use of complementary assets, subject to the costs of managing a more complex network.

Frameworks and theories in international business, as in other social sciences, attempt to explain events and developments that have already occurred, and it is axiomatic that things do not stay the same: The behaviour of firms in the future cannot be accurately predicted by their actions in the past. Firms are \textit{path-dependent}, but not entirely so. To put it another way, there is a vintage effect. The rest of the actors in the economy (institutions, competitors, customers and suppliers) evolve largely independently of a given firm, but changes in their behaviour impinge on its behaviour.

The last few decades have seen a fundamental change in the activities of MNCs. MNC activity has increased not just in its extent, but also in its intensity, and variety. These developments are often associated with the process of globalisation. Economic globalisation refers to the increasing cross-border interdependence and integration of production and markets for goods, services and capital. This process has led to a widening of the extent and form of international transactions, and to a deepening of the interdependence between the actions of economic actors located in one country and those located in others (Dunning 1997). Inter alia, one of the primary consequences of globalisation has been the growing convergence of income levels, consumption patterns and institutional structures, both among the industrialised countries, and between them and the more advanced developing countries; and also the increasing significance of intra-firm trade in goods and services. The influence of globalisation on international business activity has ushered in fundamental changes in which MNCs undertake cross-border activities, in what Dunning (1995) has described as ‘alliance capitalism’.

It is hard, if not impossible, to establish clear causalities between developments relating to globalisation, but their interdependence is unmistakeable.
For instance, the kinds of technologies across countries have shown to have converged because of, *inter alia*, increasing cross-border competition and the increasing interdependence of economic actors in different locations. These developments have changed the way firms organise their innovative activity both spatially and organisationally. There is also an increasing international aspect of R&D activity, and a growth in the use of collaborative R&D, both within and across borders. Competition is global in nature, and this affects the way in which firms sustain their competitiveness. Cantwell and Sanna-Randaccio (1990) have shown, for instance, that firms seek to emulate the technological advantages of leading competitors in the same industry, regardless of their national location. Similarly, Narula and Hagedoorn (1999) have shown that firms seek to engage in R&D alliances with technological leaders in the same industry, irrespective of their national origins.

Firms increasingly seek to invest abroad for a growing variety of reasons, and while asset-exploiting activities still predominate as a motivation, the tendency for firms to invest abroad in order to augment their existing assets is now also substantial, and forces scholars of international business to rephrase their enquiries.

Thus, while the early question in the international business literature was 'why do technologically advantaged firms go abroad to exploit their advantage (and transfer their technology internally to be able to do so)?', with the rapid expansion of activity in now-established MNCs from a wider range of home countries a second question has arisen, namely, 'why do existing MNCs source technology creation internationally through an internal network of geographically dispersed affiliates?'. The eclectic paradigm is equally applicable to both these kinds of question. Thus, in the 1980s those of us that continued to insist on the concept of ownership advantages as a condition for international corporate expansion reformulated the concept more precisely. Critics of the concept had focused their attack on an interpretation of Hymer's earliest discussion of ownership advantages, as a net cost advantage of foreign-owned over indigenous firms in the relevant local market (and this is still often the version that critics prefer to disparage today, seemingly unaware that the discussion, like the real world, has moved on!).

The first and obvious revision is that ownership advantages must be thought of in relation to the international competition mainly from other MNCs rather than relative to domestic companies in a particular host country. Today MNCs are generally competing with one another in international markets, they are usually not in
the earliest stages of internationalisation and their investments are not all of a local market-oriented kind (unlike in Hymer's case, in which he had addressed the more specific question of why firms initially go abroad and begin to engage in outward direct investment). Indeed, beyond the notion that firms evolve in their intensity of overseas activity, the internationalisation sequence argument whereby firms first export, and then engage in foreign direct investment (FDI) has now largely been abandoned. Firms in certain sectors skip exporting, and proceed directly to FDI, still others seek to augment assets in several locations, sometimes without any other prior asset-exploiting activities overseas. It is not unusual for MNCs to use several organisational modes simultaneously in the same location, and with the same partners (Benito and Welch 1994, Peterson and Welch 2001).

Second, innovation and hence innovative advantages are differentiated and relative concepts, not indicative of some notional technology frontier. All surviving MNCs have some distinctive competitive edges, and it is these differentiated firm-specific strengths that constitute each firm's ownership advantages rather than some overall absolute cost advantage. Hence, MNCs that are not world leaders or do not hold an overall absolute cost advantage over most indigenous firms in the countries in which they invest may still have ownership advantages especially in operating in certain differentiated kinds of environment, and some of them have been able to upgrade these advantages more rapidly than in the past, encouraging and facilitating a faster internationalisation. Third, therefore, there is a complementarity between the initial ownership advantages of the firm and its ability to consolidate and extend these advantages through an international network of competence-creating subsidiaries. MNCs with greater initial ownership advantages have a greater absorptive capacity to be able to extract and utilise the potential for new innovation to be found in foreign centres of excellence. So it is rather facile to counterpose the initial holding of ownership advantages and the ability to build advantages through asset-seeking foreign direct investment, as has sometimes done by would-be critics of the eclectic paradigm, since actually the two tend to go together. Likewise, in a successful process of international network creation in the MNC, ownership and location advantages are cumulatively developed together, but this does not imply that the conceptual distinction between them is not useful. For a further discussion of the role of ownership advantages and a review of the debate over their necessity see Cantwell (2000a).
Concerning the relationship between ownership advantages and internalisation advantages in the light of the rise of internationally integrated networks in MNCs, the eclectic paradigm provides a suitable framework for an interchange between the evolutionary theory of technological change applied to MNCs (Cantwell, 1989, 1994, Hagedoorn and Narula 2001) and the transaction cost approach applied to the theory of the existence of the MNC (Buckley and Casson, 1976). Whereas the theory of cumulative technological change, like the work of the classical economists, is a theory of production (and the changing technology of production), as it stands the Coasian theory of the firm, like the neoclassical economic thinking of which it is a criticism, is a pure theory of exchange. Exchange takes place under a variety of institutional arrangements, in markets or within the firm. However, in order to make the Coasian theory of the firm itself evolutionary it would be necessary to specify how transaction costs are themselves influenced by the growth and technological innovation of firms.

As Casson (1986) pointed out, while transaction cost theory specifies conditions under which non-market institutional arrangements will attain (for example, within the firm), it does so at present to the exclusion of any active role for managerial strategy. In other words, while a theory of the MNC, couched in an exchange framework, can explain the existence of the MNC or the firm, it still left the firm itself as a passive reactor to transactional circumstances. It relates to the external influences on growth, and not to the internal sources of growth which make the firm inherently dynamic when under competition in its final product market. Changes in the organisation or control of production are merely a response to changes in the costs of various exchange relationships in markets or otherwise. This procedure may be justified if one is concerned only with the internalisation of intermediate product markets actively replacing trade between independent parties, but in the evolutionary or resource-based view this is not the main source of growth of the firm.

It seems reasonable to suppose that the accumulation of technology and the growth of production within the firm will affect the transaction costs of exchange. The transaction cost theorist has instead tended to start from exchange in a market, which gives way to more consciously organised control where it is relatively inefficient. Coase (1937) stressed the market conditions which lead to a reorganisation or an extension in the organisation of the firm. However, the nature and extent of a firm's transactions and cooperative arrangements with other firms, as well as its market share, also depend upon its innovative capacity vis-à-vis other firms. As paths
of technological development become established within each firm this is likely to affect the conditions of technology transfer between them, which has been the focus of much of the internalisation literature.

The collection of papers we have brought together here for this special issue can be grouped under either or both of two headings, representing a focus on particular elements of the eclectic paradigm. The first group are concerned with the increasing interaction between ownership advantages and location advantages, as referred to earlier. This has been a central concern for macroeconomic theories of trade and development (the eclectic paradigm applied to the level of countries or national systems, and their inward and outward investment), and for microeconomic theories of the changing internal division of labour within the firm (the increasing significance of competence-creating subsidiaries in favoured locations and asset-seeking types of investment, as discussed above), as well as analyses of localised inter-company spillovers. The second group are concerned with the shifting characteristics of internalisation advantages, and with new ways of viewing the organisational coherence of economic activities. This is the centre of attention for work on the changing boundaries of the firm in the form of a proliferation of inter-firm alliances and mergers and acquisitions, and for discussions that contrast the transaction cost and resource-based perspectives on the firm, or which develop the organisational strategy perspective on the firm. We now turn to a brief review of contributions under these two headings.

3. Increasing interaction between ownership and location advantages

Recent research applying the framework of the competence-based approach to multinational firms (Cantwell, 1989) has attempted to trace out the technological evolution of large multinational corporations over time as a path-dependent learning process following distinct corporate technological trajectories (Dosi, 1982). In the course of this process, MNCs move into new technological fields and they establish innovative activities in multiple geographical sites as a reflection of the development of the underlying capability of firms. In the internationalisation field, new theoretical and empirical models have been devised of the process by which multinational companies access locationally dispersed technological assets, through their own international operations and through alliances with other firms (Cantwell, 1989; Kogut and Chang, 1991; Dunning, 1995; Dunning and Narula 1995, Pugel, Kragas
and Kimura, 1996; Almeida, 1996; Frost, 1996; Cantwell and Barrera, 1998; Kuemmerle, 1999; Cantwell and Janne, 1999; Pearce, 1999; Zander, 1999; Narula 2000). We have suggested (e.g. Cantwell and Piscitello, 2000) that in the more recent internationally integrated or ‘globalised’ MNC, the geographical dispersion of innovation may come to facilitate the technological development of the firm, since the MNC can tap into alternative streams of innovation in different centres, and establish favourable cross-border interactions between them (Cantwell, 1995; Zander, 1997; Dunning, 1996).

The firms of each country tend to embark on a path of technological accumulation that has certain unique characteristics and sustains a distinct profile of national technological specialisation (Rosenberg, 1976, Pavitt, 1987, Cantwell, 2000b). The kinds of linkages that grow up between competitors, suppliers and customers in any regional district or country are also, to some extent, peculiar to that location, and imbue the technology creation of its firms with distinctive features (Mariotti and Piscitello, 2000). For these reasons, other MNCs often need to be on-site with their own production and their innovatory capacity if they are to properly benefit from the latest advances in geographically localised technological development, to feed their innovation (Cantwell, 1989, Kogut and Chang, 1991). Moreover, due to the complexity of technological learning, and the significance of maintaining face-to-face contacts, the localisation of technological contacts tends to occur at a regional level within host countries (Jaffe et al, 1993, Almeida, 1996, Cantwell and Iammarino, 1998, Verspagen and Schoenmakers, 2000). By contrast, where the technological capacity of a host country is weak in the sector concerned, the investments of MNCs may drive out local competition and reduce local technological capability still further (Cantwell, 1987). It is therefore typically when there is already a strong existing domestic technological presence that the R&D of foreign-owned affiliates is most likely to become substantial, and to gain a creative role with respect to the global technological development strategy of the MNC as a whole. In other words, it is where the ownership advantages of investing firms and the location advantages of the host region or country are strongest that we find the greatest potential scope for a process of the mutual reinforcement of these advantages through the two-way spillover effects of internationalisation.

It is self-evident that the interaction between ownership and location advantages has important implications for policies relating to economic growth and
development. Countries seek to attract MNC activity as a means of improving their location advantages (and consequently the ownership advantages of local firms), through spillovers and linkages due to MNC activity. However, the quality and extent of the externalities due to MNC activities depends on the motivation of their investment, which is itself dependent on the kinds of location advantages available to them (Narula and Dunning 2000). Even where the ‘right kinds’ of FDI (i.e., which provide optimal potential spillovers and linkages) are located in the host country, the ownership advantages of domestic firms need to have the necessary absorptive capability to benefit from them. In other words, there is a powerful dynamic interaction and interdependence between the ownership advantages and location advantages that underlies FDI-supported economic development (Narula 1996).

This ownership-location advantage dynamic and its policy implications has been tackled from several perspectives. There has been a more aggregate and macro-view (see e.g., Dunning 1981, 1988, Lall 1993, Tolentino 1993, Narula 1996, Ozawa 1992, 1996), while the work of others have focused on particular countries or groups of countries (e.g., Lall (ed) 1983, Kokko 1992, Blomstrom 1989, van Hoesel 1999).

The paper by Terutomo Ozawa and Sergio Castello in this issue falls firmly within this tradition. This paper examines the role of the MNC in endogenous growth. In particular, they explore the proactive role of governments in promoting FDI-assisted growth, building on previous work on FDI and governments (see the various contributions to Dunning and Narula 1996). Their paper fleshes out some of the processes that underlie the virtuous circle of technology accumulation (Cantwell 1987), but particularly emphasising the importance macro-organizational policy, and relating this conceptualisation to received theory on endogenous growth.

This subject is also touched on by Dunning in his contribution here. He reminds us *inter alia*, that while the tenets of the eclectic paradigm have remained the same, it is in its application to particular issues that has led to its evolution. The economic and socio-political realities within which international business is conducted is continually evolving, and so too has the way in which the eclectic paradigm applied, if it is to serve as a yardstick by which to understand the complexity of the phenomena in question. Dunning - ever-cognizant of new developments – provides a glimpse towards the end of his paper of the issues that he feels still challenge the IB scholar, and those that might be expected to arise.
4. **New perspectives on internalisation advantages**

Alliance capitalism implies that the favoured mode of cross-border value adding activity has begun to shift away from an emphasis on hierarchies towards a richer variety of organizational modes. This has occurred along with a systematic shift towards the dis-integration of the vertically integrated firm. This trend has occurred throughout the value chain, and across industries, but nowhere is this development more starkly observed than in the area of innovation and technology development.

In particular, there has been a tremendous growth in the use of external networks by firms of all sizes (Hagedoorn 1996). Indeed, Duysters et al (1999) note that alliances have shifted from being regarded as a peripheral aspect, to a cornerstone of the firm’s technological strategy. In addition to the declining costs of monitoring and exploiting networks, there has also been a growing need for firms to possess multiple technological competences (Granstrand, Patel and Pavitt 1997). This trend has largely been a result of the increased knowledge content of products in general, and the cross-fertilisation of previously distinct technological areas. Firms have sought to utilise ‘non-internal’ means to undertake innovation, and we refer specifically to the use of strategic alliances and outsourcing. This trend has been noted by Veugelers and Cassiman (1999), Archibugi and Iammarino (1999) and Narula (2001) among others. The facilitating role of globalisation has expanded firms’ use of external resources to reduce, *inter alia*, innovation time spans, costs and risks, and acquire greater flexibility in their operations (Hagedoorn 1993). The improved enforceability of contracts and declining transaction and monitoring costs resulting from developments associated with globalisation have made it easier for firms of all sizes to monitor, identify and establish collaborative ventures than previously had been the case (Narula 1999, 2001). In other words, hierarchical control and full internalisation is no longer always a first-best option to MNCs, especially where innovatory activities are concerned. Even where this is so, full internalisation may simply not be a choice available to the MNC. Take the case where firm A seeks technological competences that are firm-specific to B, and these are a small aspect of the technological assets of firm B. Further assume that while there are many variations of this technology available from other firms, firm B’s design is the dominant one, or is most compatible with firm A’s other technological assets. To buy the technology from another firm would mean higher costs. If the technology is unique, firm B is unlikely to want to license. Besides, the technology may be largely
uncodifiable. It is in neither firm’s interest to engage in arms-length transaction, and short of acquiring the entire firm B – another expensive option, especially if the technology sought forms only a small part of firm B’s assets – it must seek some sort of an alliance. In other words, firms that undertake R&D alliances often have fewer organisational options than alliances in production or sales.

In this special issue, John Hagedoorn and Sarianna Lundan take a broader view of inter-firm relationships, including both alliances and M&A within the framework. Both represent an opportunity for firms to seek complementary assets abroad, be they technologically intensive, or simply factor endowments. Alliances and M&A can thus serve similar purposes, but each has peculiarities that make them more suitable to particular circumstances. MNCs, they argue, must choose between control and flexibility.

Even smaller technology-based MNCs are nowadays involved in a web of such agreements, and their growing significance raises numerous theoretical conundrums. There are sets of issues that raise new perspectives for internalisation advantages. because cooperation is inherently complex as an activity. First, because such increasingly complex linkages, both of networks internal to the firm, and those between external networks and internal networks, require complex coordination if they are to provide optimal benefits (see Zanfei 2000 for a discussion). Such networks are not only difficult to manage, but also require considerable resources (both managerial and financial). It is no surprise, therefore, that external technology development is primarily the domain of larger MNCs with greater resources, and more experience in trans-national activity (Hagedoorn and Schakenraad 1994). But technological assets represent only one aspect of a MNC’s ownership advantages. The firm-specific ownership advantages that derive from its ability to manage and coordinate intra-firm and inter-firm transactions (Ot advantages) are central to understanding the competitiveness of firms. Indeed, the lack of technological advantages can be offset by superior Ot advantages, and may be used to develop and acquire technological assets. Managing a web of different types of agreements across borders is not without its price, and highlights the role of Ot advantages in the success of the MNC. On the one hand, allowing for differences in the motivation to locate overseas (which may themselves derive from simple firm- and industry-specific differences), geographical proximity to host locations is important. On the other, the knowledge-based firm needs to seek internal proximity between strategically
important functions located abroad (such as R&D) and the rest of the MNE (Blanc and Sierra 1999). This acts as a centripetal force on R&D, and accounts for a tendency of firms to locate the most strategically significant aspects of their activities closer to headquarters. A dispersion of activities across the globe also requires extensive coordination between them – and particularly with headquarters - if they are to function in an efficient manner with regards to the collection and dissemination of information.

The contribution of Anoop Madhok and Anupama Phene in this issue avers that the management of intangible assets is potentially a core, inimitable advantage of the firm. The MNC, in their view, is a sub-economy in its own right. Different forms of organisation act as complements to one another, rather than as substitutes for traditional hierarchical modes. Madhok and Phene suggest that there is an increasing need for the economics and strategic management literatures to converge. While one branch of economic theory (the transaction cost school) has asked why the firm exists, strategic management theory (like the economic theory of the growth of the firm, which derives from Penrose's resource-based approach) is more interested in explaining the different performance among firms, but these, they argue, are co-dependent, and co-evolutionary.

A second major issue is the 'fuzzy border problem' because it becomes increasingly difficult to clearly identify where the boundaries of the firm lie. Internalisation advantages by themselves provide only a partial explanation for the growth in alliances, and only suggests why one group may derive greater benefits from collaboration than other groups. It does not answer why firms increasingly prefer quasi-hierarchical arrangements to fully-internalised ones. Cost issues are not always central to explaining the growth of cooperation. If this were so, the decline in monitoring and transaction costs should lead to at least the similar extent of benefits for traditional hierarchical arrangements. In answering this, it is important to reflect on the presence of the word 'strategic' in strategic alliances. What differentiates a strategic alliance from a customer-supplier network is the underlying motive of the cooperation (Narula and Hagedoorn 1999). The primary motivation for a customer-supplier network (essentially an outsourcing agreement, where joint work is minimal) is that it is primarily cost-economising in nature, while strategic alliances embody a second motivation, which is strategic in nature. 'Strategic' suggests that such
agreements are aimed at long-term profit optimising objectives by attempting to enhance the value of the firm’s assets.

Several reasons exist for the growth in popularity of cooperative agreements which embody a strategic element. One explanation is based on the increased competition due to liberalisation of markets and the globalised nature of the operations of firms. Such increased competition has led to a low-growth scenario over the past two decades or so, and firms need to seek cheaper sources of inputs or divert sales from slow or negative growth markets (Buckley and Casson 1998). Such changes often need to be undertaken with rapidity. Declining transaction costs associated with contractual or quasi-internalised relationships in addition to falling profits margins has led to a dis-integration of certain firms in particular industries, as they seek flexibility and lower risk.

Other more strategic reasons exist for preferring alliances to hierarchies. First, firms do not always have recourse to patenting as a means to protect their intellectual property, and must rely on secrecy or co-invention instead (Levin et al 1987). Second, by co-invention, alliances allow firms to monitor competitors, and allow firms that are engaged in conducting similar research. As Narula and Dunning (1998) note, firms may also engage in alliances in order to co-opt the competition. Take the situation where two firms in the same industry are pursuing an important new breakthrough. Neither can be certain that they will win the race to innovate. As such, it may be in their best interest to collaborate, thus ensuring both that they are jointly ‘first’: Half a pie may be considered better in conditions of uncertainty while there is a probability that there may be none at all.

Third, MNCs do not only seek to partner with ‘technology leaders’. If this were the case, asset-augmenting activities would remain the exclusive domain of only a handful of firms. Why would a potential partner wish to collaborate with another which has limited or as-yet-undemonstrated resources to offer? First, because of the nature of innovation, the only way to determine the nature of a potential partner’s research efforts is to examine them. One way it can do so is by engaging in some form of mutual hostage exchange, which an alliance provides. Second, even where the partner’s resources prove to be of a limited or inappropriate nature, and the alliance is terminated prematurely, information about its former partner’s competencies are then available to either firm in future periods, should it require competencies similar to those on offer by its ex-partner. Third, as Hagedoorn and Duysters (1997) have
argued, while selecting partners that are well-established players in existing technologies may represent a profit maximising situation, it is optimal only in a static environment. In a dynamic environment, where there is a possibility of technological change (or even a change in technological trajectories), having ties to a wide group of companies, including companies that have yet to demonstrate their value, represents a higher learning potential. At the technology frontier where dominant technological designs have not yet been determined and several potential options exist, it pays to have a number of overlapping, redundant agreements. It may be optimal to partner with all sorts of companies, even those without a demonstrated track record. Finally, as Kay (1997) explains, 'it is necessary to engage in networks with certain firms not because they trust their partners, but in order to trust their partners'.

Limitations in the applicability of economic theory-based explanations to strategic management issues forms the basis of Stephen Guisinger’s contribution to this special issue. He suggests that the theoretical perspectives based on an economic framework such as the eclectic paradigm tend to focus on explaining how firms accommodate themselves to their environment. However, its focus has been more aggregated, suggesting that it is insufficient - if it is to continue to be useful to organisation theory - for the OLI framework to merely explain in general terms why a firm exists (using the transaction cost approach) or why it grows successfully relative to other firms (as in the resource-based or technological accumulation approach), but it must also relate to the details of its internal organizational characteristics. The OLI, according to Guisinger, needs to take into account 'more finely grained firm structures such as business processes' from the organizational theory literature, which help determine profitability. MNCs need to both adapt to their environment, and to accommodate themselves in a environmentally complex environment. He proposes a modification of the OLI framework to OLMA (Ownership, Location, Mode of entry and Adjustment).

Inter-firm cooperation is by no means a simple cure to a firm’s ills. Considerable risks and costs are associated with such a strategy. As a general rule, firms find it extremely costly and difficult to access competencies from other firms or locations in fields which are unrelated to their own capabilities, and with which they have little initial familiarity; while the internalisation advantages of in-house combinations of activities derive (inter alia) from the technological coherence of these activities (Teece et al., 1994). This is essentially due to the need for 'absorptive
capacity' when the firm acquires knowledge from its external environment or one knowledge-creating part of the firm interacts with another, and which requires the recipient to have some innovative potential of its own to be able to learn and effectively adapt the technologies to which it may wish to have access (Cohen and Levinthal, 1989). Thus, inter-firm technological alliances tend to develop in areas in which partner companies share some complementary capabilities, and these alliances create a greater degree of interaction between the partners' respective paths of learning and innovation (Cantwell and Colombo, 2001). However, the extent and form of interaction between learning activities depend upon the organisational form of cooperation. Learning may either continue to be organised relatively autonomously in each partner company in the case of licensing (when the agreement is restricted to an essentially quasi-market exchange of knowledge), or cooperation may be extended to the coordination of learning activities themselves (which is sometimes a feature of joint ventures) (Cantwell and Barrera, 1998). This varies considerably by industry. Non-equity forms of agreements tend to be more efficient for undertaking activity in more research-intensive industries, and where technological change is rapid since they promote negotiation and can lead to more intensive cooperation than equity forms. However, where firms seek to learn and transfer tacit knowledge back to the parent firm, such as market-specific knowledge when entering a new market, or are engaged in production as well as research, equity forms of agreement may be more appropriate. Equity agreements are preferred in relatively mature sectors, while non-equity agreements are utilised in high-tech sectors (Hagedoorn and Narula, 1996).

Inter-company cooperation sometimes involves a coordination of learning processes, but sometimes involves their greater separation or differentiation. Thus, from the competence-based perspective, the issue may not be whether economic activity is organized by hierarchy within the firm, or by markets between firms, or between these two extremes by inter-company cooperative agreements (the transaction cost view); but the issue is rather the extent of cooperative linkages between the learning processes that lie behind economic activities (whether such cooperation occurs under common ownership within the firm, or through the joint development activities of independent companies). From this viewpoint, the central concern is the motivation and objectives of different forms of corporate organisation in the context of the potential (or lack of potential) that exists for learning, and not the differences in the various types of business organisation in themselves.
To reiterate what was emphasised earlier, the eclectic paradigm does not need to be wedded to one particular theory of the firm (in this case the transaction cost approach) to the exclusion of any other. Internalisation advantages or disadvantages in situations of combined or interactive learning are better explained by a competence-based approach to the firm, but this is not necessarily at odds with the use of the transaction cost theory in relation to more stable established activities. Hence, the eclectic paradigm facilitates judgments over how to choose between these theories of the firm where they offer alternative views, and then how they might be synthesised or related to one another once the proper position of each has been recognised.

Part of the answer to the question of why it is that technology is developed in cross-border networks within the MNC is provided by internalisation theory, which focuses on why MNCs as opposed to purely national firms have come into existence. That is, if the initiating firm is to appropriate a full return on its technological advantage, and if it is to coordinate the successful introduction of its new technology elsewhere, then it must exercise direct control over the network as a whole. However, this may be not so much a feature of the market for technological knowledge which is the focus of internalisation theory, as a feature of the very nature of technological development itself. In the alternative evolutionary or resource-based view, technological knowledge is not an immediately usable intermediate product in its own right, but is rather an input into the collective corporate learning process by which tacit capability and hence technology as a whole is generated. As such, it is an input that normally has its greatest relevance to the learning process of the firm that created it and set the problem-solving agenda to which it represents a response, and thus it is likely to be of the greatest value to the originating company (Cantwell, 1991, 1994).

Suppose for a moment that the act of exchanging technological knowledge between firms does not present a problem, in that a reasonable price for such an exchange can always be readily agreed, such as in a framework of cross-licensing agreements. Now consider an international industry in which constituent firms produce more or less identical products for the same international markets. However, each firm has its own quite specific process technology, derived from a distinct technological tradition (say, different chemical processes with a similar end result). In this situation, if technological accumulation is continuous in each firm, raising its productivity or lowering its costs along a given line of technological development, then no existing firm would abandon its existing pattern of innovation and buy in all
its technological knowledge from a competitor. It would be far more costly, and perhaps even infeasible, for an existing firm to switch into a completely new line of technological development, by comparison with the costs of the potential seller of technology simply extending its own network. It is because technology is differentiated across countries even within the same firm, but especially between different firms, that technology transfer is a costly process (as demonstrated by Teece, 1977). Some exchanges of technological knowledge between existing firms will take place, since alternative lines of technological accumulation in the same industry are often complementary to one another, and so spillovers occur and may be facilitated through inter-company alliances in which knowledge is exchanged and occasionally jointly developed. However, where technological knowledge is bought in it must be adapted to the specific context of the firm's own tacit capability (the other necessary component of any operational technology) and then incorporated into an existing stream of innovation, and this adaptation becomes part and parcel of the on-going process within an established firm of generating its own technology.

In the case outlined, the retention of technology within each firm has little to do with any failure or malfunctioning of the market for technological knowledge, but everything to do with the close association between the generation and the utilisation of a distinctive type of technology within each firm. By extending its own network, each firm extends the use of its own unique line of technological development, and by extending it into new environments it increases the complexity of this development. The expansion of international production thereby brings gains to the firms as a whole, as the experience gained from adapting its technology under new conditions feeds back new ideas for development to the rest of its system. For this reason, once they have achieved a sufficient level of technological strength in their own right, firms are particularly keen to produce in the locations from which their major international rivals have emanated, which offer them access to alternative sources of complementary innovation. Thus, on this evolutionary interpretation of the eclectic paradigm internalisation advantages are attributable to the conditions for improved organisational learning and technology creation, rather than to the conditions for a more efficient cost-minimising organisation of an established set of transactions.

Paz Tolentino’s paper in this issue attempts to bridge the schism between the interpretations of the concept of internalisation between those that claim internalisation (the transaction cost approach) is itself a general theory, and the
concept of internalisation which allows for other potential theoretical explanations of firm behaviour within the eclectic paradigm. She does so by proposing that firms may exercise common control over assets used in geographically dispersed locations either because the markets for these assets is internalised to reduce the transaction costs of exchange (in which case internalisation is a sufficient theory of the multinational dimension of the firm), or instead because the distant use of the assets is connected to the internal ability of the firm to continue to generate endogenously such assets (in which case a resource-based or competence-based approach is relevant to the specific combination of ownership and internalisation).

5. **Future directions and challenges**

As the various papers in this special issue demonstrate, the eclectic paradigm is a fundamental tool for analysis at several levels, and from numerous perspectives. Its versatility is consistent with a number of prevailing theoretical approaches, including transaction costs theory, resource based theory of the firm, evolutionary theory, the product life cycle theory, to mention a few.

That it has become the underpinning of a vast literature attests to its staying power. It is not a theory in itself, but through its application to particular managerial and economic issues, it has inspired various theories and other frameworks which fill this void. We feel that much of the criticism that the eclectic paradigm faces is a result of misunderstanding the fundamental difference between the eclectic paradigm and eclectic paradigm-inspired theories.

A colleague of ours once described the eclectic paradigm as an intellectual coat-hanger. Just as a coat hanger is not restricted in its use to coats but to all manner of clothing, so too, she remarked, was it with the eclectic paradigm. Its generality allows it to be applied to a wider context of issues, some that only peripherally relate to the MNC.

The paper by Peter Buckley and Mark Casson follows in this tradition, with several interesting and highly unusual highlights. First, they develop a distinctly original paper, which appears on the surface to have little to do with the rest of the special issue. What they have achieved is an analysis that is twice removed from the eclectic paradigm, in that they develop an original framework that does not derive directly from the eclectic paradigm itself, but from another discourse and highly unusual paper which is based on the eclectic paradigm (Dunning 2000). Second, their
objective is to deal with an issue which is eclectic in its own right, critically evaluating and the co-evolution of Christianity, globalisation and western capitalism. Third, they take a broader, social science perspective, rather than simply an economics one, drawing attention to the moral crisis that global capitalism potentially presents to society.

Western capitalism, Buckley and Casson argue, evolved within a religious (but particularly Protestant) milieu, in that it created a moral background that acted to retard possible excesses on the part of capitalists (whether consumers or entrepreneurs), by encouraging self-control through the threat of divine retribution. The gradual decline in religious beliefs over the last century or so has occurred alongside economic globalisation. The subsequent exposure of society to man’s natural inclination towards selfishness has grown unchecked, as moral constraints that religion has hitherto provided decline. It is this that underlies the ‘anti-capitalism’ demonstrations associated with the growing power of supra-national institutions and MNCs.

In applying the OLI framework to a particular line of inquiry, theorists have merged other frameworks and disciplines to ‘flesh-out’ and contextualise the subject under investigation. Occasionally these theories fail the test of time, or prove otherwise wanting, but their inapplicability does not in itself negate the usefulness of the eclectic paradigm. In other cases, tests of the eclectic paradigm are in fact tests of sub-theories that underlie the eclectic paradigm.

One of the primary motivations of this special issue has been to assess the eclectic paradigm in light of changing ways in which business - and particularly international business – is conducted. These are primarily associated, but not restricted to, the effects of economic globalisation, and the consequent growth of global capitalism, alliance activity and asset-augmenting FDI.

These developments are significant, as they have potentially changed fundamental definitions. For instance, transactions are not always associated with material goods, and are no longer always physically traded in the traditional sense. The concept of location has become more tenuous, and the seemingly immutable idea of national borders brought into question, as nation states are affected by the commercial activities of firms outside their sovereignty. Firms, likewise, are influenced by policies of political entities outside their production base. The intervention of the European Commission in the merger of Boeing and McDonnell
Douglas (both with production almost wholly within the borders of the US) illustrates this well. Internalisation issues have received the most attention, as the conventional belief that full internalisation is the preferred mode of MNCs has been challenged by the growing use of strategic alliances.

These developments inevitably raise the ‘fuzzy border problem’. Borders have become increasingly unclear, be they of nation states, or of firms. The growing reliance upon inter-firm cooperation – both through outsourcing and through strategic alliances – underlay firms’ ‘fuzzy’ boundaries. The fuzziness arises from lack of clarity in what constitutes an economic entity. At what point can relations between economic entities, which are physically independent and geographically disparate, be seen to be inter-firm (or at the country level, international), and when is it regarded as intra-firm (domestic)? But at what point do transactions become inter-firm? What constitutes an MNC?

Most of the papers in this issue address the rising complexity of these processes, and the responsiveness of the eclectic paradigm to these challenges. By and large, the eclectic paradigm proves able to handle these developments. The paper by Cliff Wymbs and John Dunning deals squarely with a topic at the heart of the ‘new economy’. On the one hand, E-commerce is a facilitator of international business, creating new virtual markets that both substitute and complement existing markets and hierarchies. This raises new perspectives on internalisation advantages. On the other hand, E-commerce is an industry by itself, and this has created alternative markets and hierarchies devoted to the generation of economic rent. In other words, it is a value-generating activity, just as any other. Activities within the E-commerce industry – allowing for differences in context – can broadly be explained by the eclectic paradigm. Firms involved in E-commerce, according to Wymbs and Dunning, seek to leverage the internet to exploit or augment existing ownership advantages by choosing locations that best suit their purposes in much the same way as conventional MNCs. At the same time, they highlight the unique features of electronic markets as markets per se. Electronic markets represent provide an alternative means of conducting transactions when traditional markets fail, without resorting to hierarchical activity.

Relative to other papers published here, the Wymbs and Dunning paper stands out in that it tests the applicability to the paradigm to e-commerce, compares to various partial theories, and does not focus much on the interaction of the OLI
variables. Most of the other papers in this issue evaluate the dynamics between, and amongst ‘O’, ‘L’ and ‘I’, and to understanding their applicability to particular issues. They seek to relate the eclectic paradigm with other frameworks and supplementary theories to address specific questions.

Although there is some disagreement about what might be the most appropriate level of analysis, the validity of particular findings, and how the eclectic paradigm may be best applied, it serves its fundamental purpose, as a framework per se. It seems to us that with debates such as those within the covers of this special issue, only the most foolhardy would disagree with our prognosis that the eclectic paradigm is alive and well.
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