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A LEARNING-BASED PERSPECTIVE OF THE MULTINATIONAL ENTERPRISE [1]

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A LEARNING-BASED PERSPECTIVE OF THE MULTINATIONAL ENTERPRISE

ABSTRACT

We apply insights from Edith Penrose's work to extant theory of the multinational enterprise (MNE) as enveloped by John Dunning's Ownership, Location, Internalization (**OLI**) Paradigm. We suggest that Penrose's knowledge-based approach has important implications on the nature of, and the interactions between, **O**, **L** and **I**. Importantly, the resource/knowledge-based perspective of Penrose helps endogenize and integrate the three elements of Dunning's triad in the context of a dynamic, strategic and forward-looking knowledge-based perspective of the MNE.

I. INTRODUCTION

The purpose of this paper is to follow-up and apply insights from Edith Penrose's work to extant theory of the MNE, as enveloped, in particular, by John Dunning's (1977, 1988, 2000, 2003) Ownership, Location, Internalization (**OLI**) perspective. We claim that Penrose's insights have implications on the nature of **O**, **L** and **I**, and the interactions between the three. They serve as a means of endogenizing and integrating all three elements in the context of a dynamic strategic and forward-looking knowledge-based perspective of the MNE.

In Section II we cover briefly existing contributions to the MNE, focusing on the **OLI** as their envelope. Section III discusses Penrosean insights of relevance to extant theory, and proposes a knowledge/resource-based interpretation of **OLI**. Section IV contains concluding remarks and policy implications.

II. THEORY OF THE MNE AND THE OLI

The theory of the MNE dates back to Stephen Hymer's PhD dissertation, completed in 1960, and published in 1976. The reason Hymer is unquestionably the father-figure of the theory of the MNE is that he is the first scholar who posed the question why foreign direct investment (FDI), vis-à-vis alternative modalities of what he called 'foreign operations', like licensing, tacit collusion, joint ventures, etc[2]. Accordingly, Hymer posed the questions 'why internalize', for the case of the MNE, much in line with Coase's (1937) similar question for the national firm[3].
Hymer attributed the benefits of FDI to the advantages of the control it conferred to firms. He proposed two major reasons for the choice of FDI, as well as a third, less important one. 'Removal of conflict' between firms in international markets, and the exploitation of the monopolistic advantages of firms were the two major reasons. 'Risk diversification' was the third (less important one because it did not confer control). Through FDI firms could both reduce the forces of rivalry in international markets, and exploit their monopolistic advantages better than through the open market . That was possible for numerous 'market failure' (or intra-firm success)-related reasons, to include the avoidance of bilateral oligopoly, difficulties of finding licensees in foreign countries, honest or dishonest differences in the perceptions of the value of the advantage, etc. All these have predated more recent literatures, as documented conclusively in Casson (1990), Horagushi and Toyne (1990), Pitelis (2002), and Dunning and Pitelis (2004).

While the Coasean question 'why internalize', was already present in 1960, Hymer pursued explicitly Coase's arguments in a 1968 article. He also quoted Coase in Hymer 1970 and 1972[4]. Post-Hymer developments of the MNE narrowed down the 'why internalize the advantages' question. Various important contributions

[2] Earlier contributions to the literature included both Edith Penrose (1956) and John Dunning (1958), indeed Hymer (1976) cites both Dunning and Penrose in his PhD thesis. However, neither Penrose, nor Dunning had posed the question why FDI (intra-firm) versus inter-firm foreign operations.
[3] Indeed he even used the verb 'internalize' already at the PhD thesis "The firm is a practical devise which substitutes for the market. The firm internalizes or supersedes the market" (Hymer, 1976, p. 48)
[4] His analysis and, even, terminology in this article incorporates most major contributions of the post-Coase transaction costs literature, see Dunning and Pitelis (2004).

emphasized different reasons. Buckley and Casson (1976) focused on the public good character of ‘intangible assets’, which are susceptible to ‘market failure’ if they are not exploited internally, while Williamson (1981) stressed post-contract hold-ups, in the case of ‘opportunistic’ licensees and investments in specific assets.

Post-Hymer ‘internalization’ theorists did not address the issue of location. Dunning (1958) had done so, and indeed Hymer discussed locational factors under various guises, for example, exploitation of foreign assets, better demand conditions abroad etc., see Dunning and Pitelis (2004). Location is most crucial, indeed a sine-qua-non or the theory of the MNE (Dunning 1998). One reason is that, in effect, most questions on the MNE are also applicable for the case of non-MNEs. Penrose (1987) criticized both Hymer-type and Coase-type application to the theory of the MNE, for failing to distinguish between intra-country and inter-national expansion. For inter-country expansion the crucial issue of course, is the investment in different countries. This is a locational issue. In addition, it is an issue that involves location under different regulatory jurisdictions. In this context, the whole debate on why MNEs can usefully be subdivided to three sub-questions. First, why internationalization. Second, why integration/internalization. Third, which location, to include which country.

In Hymer (1976, 1970, 1972) why internationalization (why foreign operations in his words), is explained in terms of push and pull factors, such as external market opportunity, product life cycle considerations, and differential demand conditions (e.g. mature domestic markets), (see Pitelis (2002a). Such considerations, especially when viewed in line with other ‘locational’ considerations by Hymer (see Dunning and Pitelis 2004) also provide an indirect answer to the question ‘which country’ (in contrast to Penrose’s critique). Instead, the ‘internalization school’ did not focus on the questions ‘why internationalization’ and ‘which country/location’. It is John Dunning’s **OLI** that envelopes all three aspects. In the **OLI**, **O** stand for Ownership advantages specific to the firm (which need not be monopolistic, but could also be due to efficiency). **L** stands for Locational advantages, and **I** for Internalization advantages. The main idea is that given **O**, **L** will explain the choice of location, and **I** the choice of modality. In terms of our questions, **L** explains ‘which country’ (and up to a point ‘why internationalization’) and **I**, why internalization. **O** is a necessary (but not sufficient) condition for both ‘internationalization’ and ‘internalization’.

OLI has served and is serving an important role in the literature in part because of its paradigmatic nature, and in part because of the agility and ability of its proponents to incorporate new ideas and developments, as well as to propose new ones, see, for example, Dunning (2000, 2005)[5]. However, it is arguable that in its early manifestation in the **OLI**, has paid limited attention to the endogeneity of advantages, in particular the link between intra-firm knowledge generation, **O** advantages and their relation to **L**, and **I** advantages - –and thus (up to a point) the **OLI** underplayed the firm as a strategic actor[6].Moreover, and similar to the internalization theories, the

[5] Dunning (2005), for example, proposes institution-seeking FDI, an idea in line with the knowledge-based perspective.

[6] In contrast to some critics (e.g., Teece, 2005), Hymer had examined the historical evolution of **O** advantages in the context of his “‘law’ of increasing firm size” (Hymer, 1972), yet failed to see advantages as a process of endogenous knowledge generation and (thus) firm growth. That task was performed by Penrose (1959) and up to a point by evolutionary models of the MNE, such as Kogut and Zander’s (1993). Despite significant progress in dynamising and extending the **OLI** (e.g., Dunning,

quasi-exogeneity of **O**, **L** and **I** also implies that the framework can benefit from a more dynamic, knwoeldge-based foundation.[7] We contend that Penrose's contribution to the theory of (the growth of) the firm can serve such a purpose.

III. EDITH PENROSE, THE MNE AND THE OLI

Penrose was one of the earlier contributors to the MNE, her 1956 article in the *Economic Journal*, appeared prior to Hymer's PhD thesis. As discussed by others, eg Dunning (2003a), Pitelis (2000, 2004), Kay (1999), Rugman and Verbeke (2002), Penrose dealt extensively with MNEs and MNE-country relationships in general (e.g., the 1956 article), and in particular in the context of the 'international oil industry' and Arab countries. In the context of this work, Penrose was one of the earlier contributors to issues of 'transfer pricing', 'dumping', 'infant-firm' arguments (in support to some protectionism), etc.[8] However, she did not address the question 'why MNEs' vis-à-vis, let's say, licensing or exports, therefore, she did not deal with the 'nature of the MNE'. This is not very surprising - her subsequent 1959 classic book on *The Theory of the Growth of The Firm* (TGF thereafter) did not address the issue why (national) firms either[9]. Rather more surprising is the fact that Penrose did not explore in any detail the implications of her TGF contribution for the MNE[10].

The fundamental insight in TGF was that intra-firm knowledge generation (through learning) generates excess resources. These motivate manages to expand, as 'excess resources' can be put to (profitable) use, at (near) zero marginal cost. This endogenous knowledge/growth dynamic is realized through managerial 'productive opportunity' –the perceived (dynamic) interaction between internal resources and external/market opportunity (Penrose, 1959, Chapter V).

Despite some limitations[11], we claim here that Penrose's insight has implications on the **OLI**, our three related questions, and the need for a more endogenous, dynamic, strategic and forward-looking theory of the MNE. To substantiate this claim, we first focus on Dunning's triad.

1. O(wnership)

In TGF **O** advantages are not monopolistic, at least as far as their process of derivation goes. They are efficiency advantages by definition, as they are the result of an endogenous knowledge/innovation process. **O** advantages only become monopolistic when firms attempt to capture value by, for example, creating

2005), an application of Penrose's intra-firm knowledge generation dynamic to the **OLI** has not been attempted before.

[7] By quasi-exogenous we refer to the idea that while it is always possible to provide an ex-post explanation of advantages in line with one or other view, no detailed explanation of intra-firm advantages generation has been provided in extant Hymer, transaction costs and (thus) early **OLI**-based theories. The intra-firm focus is specific to Penrose (and subsequent resource-based-view (RBV) scholarship, see, for example, Pitelis, 2006, for a recent account).

[8] As discussed in Pitelis (2002a).

[9] Although she explicitly distinguished between the firm and the market and discussed the boundaries issue, she went on to focus on growth, not on the issue of the existence per-se.

[10] For a speculation as to why, see Kay (1999) and Pitelis (2000)

[11] Notably, the observation that the use of managerial time has positive costs (Marris, 1999) that TGF fails to deal with issues of intra-firm conflict (Pitelis, 2000) and that a number of important assertations by Penrose have yest to be tested (Pitelis, 2006).

‘impregnable bases’, raising barriers to entry, using restrictive practices, etc. All these are discussed in Penrose (1959, mainly Chapter VII). In addition in Penrose (1968) there are also explicit references to both efficiency and monopolistic advantages in the context of the multinational oil firms. Monopolistic advantages are in line with Penrose’s claim that while the process of expansion is definitionally efficient, the resulting state need not be - as/when MNEs try to capture value through monopolistic practices. The dual nature of **O** advantages, as both efficiency and monopolistic, is in line with Dunning and provides support to his views. In addition, the Penrosean insight serves to provide an intra-firm, efficiency-based explanation of (endogenous) **O** advantages. It also introduces the important distinction between process and state-type advantages, the latter being potentially monopolistic as originally suggested by Hymer.[12]

2. L(ocation)

Penrose did not deal with **L** in TGF. In her preface to the third edition (Penrose 1995) she claimed that all the theory of the MNE requires it to suitably adapt her TGF ideas, and account for the existence of different nations. This would require accounting for inter-national differences in regulatory and tax systems, different laws and cultures, etc. (p. xv). Penrose did not pursue this much further, leaving it to other scholars to do so. (We will return to this later, when discussing **I**.) Nevertheless, the Penrosean perspective has important implications on resource/asset/knowledge/innovation seeking and augmenting locational advantages for FDI. As firms are bundles or resources creating knowledge, it is ‘natural’ for them to locate where existing resources/knowledge is such that it can add value to firms’ existing resources, knowledge and technological bases and (thus) operations. This implication from Penrose’s work is in line with Dunning’s discussion of asset seeking **L**ocational advantages (e.g., Dunning 2001), and more recent attempts to build a theory of the meta-national (e.g., Doz 2004), which consider MNEs as pursuers of global learning, knowledge acquisition and upgrading.

3. I(nternalization)

Penrose did not deal with **I** - advantages in the specific context of the MNE.[13] However, it is not accurate to claim that she did not deal with ‘internalization’ altogether. She dealt extensively with integration, which she considered as an earlier (and more accurate) term for ‘internalization’.[14] Accordingly, her views on ‘internalization’ should be looked at in her analysis of horizontal and vertical integration. In TGF, both are extensive. In both cases, there are detailed arguments. For example, one argument she offers for horizontal integration is the acquisition of

[12] On the last mentioned Penrose (1959, p. 113) observes that “A firm may attempt to entrench itself by destroying or preventing effective competition by means of predatory competitive practices or restrictive monopolistic devises that relieve it of the necessity of either meeting or anticipating serious competitive threats to its position. In such circumstances a firm may grow for a considerable period depending on the demand for its products, harassed neither by price competition nor by the fear that competitive developments will make its products or processes obsolete. Examples of growth over long periods which can be attributed *exclusively* to such protection are rare, although elements of such protection are to be found in the position of nearly every large firm.”

[13] The nearest she comes in the book to discussing the MNE is the following: “Often the large firms organize their various types of business in separate divisions or subsidiaries” (p. 156)

[14] In private discussions. Note also that Richardson (1972) too, pursued this approach. In essence the two terms are synonymous.

valuable managerial resources (partly in response to the 'Penrose effect'- limits to growth due to limited intra-firm managerial resources).

> "Of special importance is the fact that a firm can also acquire an experienced management 'team' and an experienced technical and labour force. Hence acquisition can be used as a means of obtaining the productive services and knowledge that are necessary for a firm to establish itself in a new field, and the addition of new managerial and technical services is often far more important than the elimination of competition and the reduction of the costs of entry." (Penrose, 1959, pp. 127-128).

Concerning vertical integration, according to Penrose, one reason for it is the superior knowledge, and (thus) ability of firms to cater for their own needs, as they have better knowledge of these (Pitelis and Wahl, 1998 discuss these points in more detail). For example, Penrose states that

> "opportunities arising from the nature of the productive resources of the firm giving the firm an advantage in the production of some of its own requirements, market opportunities in the case of forward integration, competitive pressures of various kinds, special problems arising from the existence of uncertainty, all play a similar role." (1959, pp. 145-146) .

Applying such ideas to the case of the MNEs, would suggest resource/knowledge-seeking differential capability-induced FDI.[15] The last mentioned is in effect Kogut and Zander's (1993) subsequent (independent to Penrose's) 'evolutionary' contribution to the MNE (see also Verbeke, 2003, for a critical account)[16].

To summarize, TGF arguments on integration have implications on **I**, in line with more recent theoretical developments. Importantly, moreover, the knowledge/resource-based approach is that by bringing central stage the role of learning, it has important implications both for interaction effects between **O, L** and **I**, and also on the case for a more forward-looking approach for the MNE (and more widely), one that (tries to account for) anticipated change and to act on its basis.

IV. INTERACTION EFFECTS AND THE CASE FOR A FORWARD-LOOKING PERSPECTIVE

Interaction effects have not been given much attention in the literature.They are crucial. **O**, **L** and **I** are dynamically inter-related. For example, **L** advantages once realized serve as **O** advantages. Similarly, **I** advantages are **O** advantages too (*viz* Hymer's (1972) view that 'multinationality per se' is an advantage, the standard view that vertically integrated firms may possess higher market power, etc., see Pitelis and Sugden (2002) for more on such advantages). In turn, **I** advantages are related to **L**

[15] Also institution-seeking FDI, a more recent important addition to the **OLI** (Dunning, 2005).

[16] Being capabilities-based and very Penrosean in nature, this contribution has acquired prominence. Yet both the Penrosean view of vertical integration and Kogut and Zander's view of the MNE, suffer from a failure to appreciate that differential firm capabilities are tantamount to relative firm superiority on the market (i.e. relative market failure). This also raises the question why - in which context the Hymer/Buckley/Casson/Williamson transaction costs-based explanation is of significance. It is interesting to note that in her case study on the Hercules Powder Company (Penrose, 1960) she provides a reason for vertical non-integration of Hercules' customers and of Hercules, in terms of 'oligopolistic interaction' arguments, but also in terms of the superior advantages of specialization of Hercules'.

and **O** advantages in that the last two pose the question what and where to be internalized respectively. In addition, in the context of a learning perspective, **L** and **I** advantages are endogenously selected as **O** advantages in the very process of firm growth. Crucially moreover **O**, **L** and **I** can be/are shaped by firms' own decisions. Managers 'productive opportunity' is in part a result of their own efforts to shape the firms' internal and external environment.[17] In this context, 'productive opportunity' both helps endogenize and shape **O**, **L** and **I**. This helps provide a more endogenous, dynamic, and forward looking strategic theory or the MNE.

Another aspect of the Penrosean theory, often missed in the literature, is that it helps explain whether, what, when, where and how to integrate/internalize. This is a crucial limitation of the transaction costs approach, especially Williamson's (e.g., 1981) version. Despite his advocacy of 'bounded rationality', in his story, firms are always able to answer 'make or buy' through a solution of a global optimization process that includes transaction (and production) costs. If anything, solving this problem can be more difficult than the standard neoclassical problem of (production) cost minimization-profit maximization. Penrose's endogenous (perceived and imperfect) intra-firm knowledge generation idea provides an answer to the question whether to 'make or buy' (but also what, when, where and how). These questions are beyond the scope of both transaction costs economies and early versions of the **OLI**, as they involve learning. They are of importance. Clearly, Penrose's insight needs to be developed, and clearly managers will often make the wrong decisions, s learning through trial and error.

By relying on learning the emergent resource/knowledge-based **OLI** is more concurrent/synchronic and also forward looking than its earlier cousins. It implies that proactive growing firms must at any given point in time rely on their endogenously generated extant 'productive opportunity' to make imperfect **L** and **I** decisions not just on the basis of what reality is perceived to be now, but also on the basis of anticipated change. This may require making apparently 'sub-optimal' decisions now, which are expected to turn out to be superior in the medium or longer terms, if and when conditions have changed in the way managers have expected, hoped for and importantly, aimed for! Such decisions moreover often need to be made simultaneously. A firm contemplating expansion, may have the option of horizontal, vertical or conglomerate expansion, domestically or cross-border. Its decision is based on existing knowledge, resources and advantages and its implementation represents simultaneously a locational, internalization and ownership-related advantage (or dis-advantage as the case may be).

While at any point in time, the **O**, **L** and **I** in the knowledge-based perspective look very much like the modern version of the **OLI** (e.g., Dunning 2001, 2005), the Penrose-based knowledge-based **OLI** is by its very nature more concurrent and forward looking. By helping explain **O**, **L** and **I** endogenously, paying more attention to firms efforts to shape **O**, **L**, and **I**, and by recognizing the close links and interactions between the three the knowledge-based **OLI** also needs to account for anticipated and aimed for change. It is therefore both more agency-based and forward

[17] "Firms not only alter the environmental conditions necessary for the success of their actions, even more important, they know that they can alter them and that the environment is not independent of their own activities" (Penrose, 1959, p. 42)

looking. On the other hand, it is clearly messier to implement, involving a higher degree of possible error.

Despite such limitations, a knowledge-based **OLI** is more in line with concepts such as ‘born-global’ firms and meta-nationals. Both are phenomena of limited empirical occurrence (see Verbeke and Yuan 2006) yet of high conceptual interest. Born-global firms need more than already established firms to simultaneously consider **O** and **L** (and perhaps also **I**), while meta-nationals can be seen as global Penrosean resource/knowledge seekers/optimizers.

In terms of the three questions posed earlier in this paper, Penrose and the resource/knowledge-based approach explain ‘why internationalization’ in terms of firms ‘productive opportunity’, ‘why internalization’ in terms of ‘superior relative intra-firm ability for resource-knowledge transfer as well as resource/knowledge acquisition’, and ‘which country’ in terms of ‘perceived relative [dis]advantages of countries as seen from the perspective of firms’ productive opportunity’, and for exploitation and acquisition of resource/knowledge (and institutional) advantages (see Dunning, 2005, for the latter). These are in line with, and extend, extant theory and the **OLI**.

Two major propositions follow.
Proposition 1: In considering FDI, MNEs attempt to simultaneously optimize the **O, L** and **I** advantages.
Proposition 2: Managers may consciously take what they perceive to be suboptimal decisions today when/if they expect these decisions to prove superior under perceived future conditions.

Both propositions seem to be well in line with current practice of MNEs. For example, by recently undertaking FDI in the UK, through acquisition of the RMC Group, the Mexican MNE, Cemex, chooses a location that confers to it an ownership and an internalization advantage simultaneously.

As *The Economist* observes, “The acquisition of the RMC added new expertise in ready-mix which was important, and more large-scale construction projects were beginning to be undertaken in Mexico, and Cemex’s international competitors began to muscle in on the company’s domestic market.” (*The Economist*, 2005, p. 88).

What this quote also shows is that Cemex’s choice is not necessarily the optimal one in terms of a pure net present value calculus of today’s conditions. Instead, it is based on expectations of change both with regard to impending changes in the sector in Mexico and emerging competition. Clearly, once Cemex has taken its decision it will also have to make the best of it by trying to influence the very changes it expects will take place, in the direction of the decision it has already taken. All this is very consistent with, and follows naturally from, the learning perspective. In contrast, Cemex’ approach is more difficult to explain in terms of transaction costs, power/efficiency, and resource-based reasoning alone, and therefore in terms of the constituent element of the **OLI**. Clearly Cemex is only an example and much more research and evidence is required to substantiate our claims.

V. CONCLUSIONS AND MANAGERIAL PRACTICE

Penrose's insights provide the basis for a resource/knowledge-based **OLI**, which

1. helps explain the derivations of **O**, **L** and **I** advantages endogenously
2. pays more attention to firms' efforts to shape/create the **O**, **L** and **I** advantages (and (through) their 'productive opportunity')
3. helps explain whether, what, when and how to internalize (thus create) **I** (and **L**) advantages
4. emphasizes the interaction between **O**, **L** and **I**
5. emphasizes the forward looking nature of decisions on **O**, **L** and **I**

All these help develop a more endogenous dynamic, strategic, and forward looking theory of the MNE. They provide added explanation and support for Dunning's choice of **O** (not M) and more recent additions to **I** and **L**, such as asset and institution-seeking FDI.

Concerning 'managerial practice' the resource/knowledge-based **OLI**, is messier, less positivist. It points to the following prescription for practice. Use extant dispersed knowledge, while developing new. Use available knowledge and information in order to make (imperfect) decisions on **O**, **L** and **I**, taking into account your perceived current conditions, but also your perception of where things are heading. Try to shape both the internal and external environments to suit your choices, recognize that mistakes are likely, try to correct these or change track, when correcting is too expensive. In all cases learn from your mistakes (as well as your successes). Importantly, learn to unlearn. Current success could be a recipe for future disasters, current failures, an incentive to future success. (Business) life is messy, but all the more exciting for it.

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