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Geographic clustering and outward foreign direct investment☆

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ABSTRACT

This study addresses an important neglected question: To what extent do geographic clusters promote *outward* foreign direct investment (ODI)? We find evidence that clusters do promote ODI and so support Porter's argument that advantages gained in clusters can be the foundations of successful internationalisation. Digging deeper, we find that certain cluster incumbents promote more ODI than others, with more experienced firms and firms with stronger resource bases accounting for more ODI. We also find that firms located in clusters within major global nodes/cities engage in more ODI. Finally, we find that both localisation and urbanisation economies promote ODI. However, the former, within-industry effects, are more important. Overall, this study echoes Dunning's call for more focus on the 'L' component of the ownership, location, internalisation (OLI) paradigm and particularly on the advantages that reside in clusters that make them not only attractive destinations for foreign direct investment (FDI) but also fertile environments from which FDI can spring.

1. Introduction

Research on both the foreign direct investment (FDI) activities of multinational enterprises (MNEs) and the advantages, disadvantages and processes that arise in geographical clusters have long and rich traditions (Buckley, 2009; Dunning, 2000; Karlsson, 2008; Marshall, 1890). A growing body of research on the *interface* of these two topics suggests a link between highly productive clusters and FDI (Majocchi & Presutti, 2009). For example, Kozul-Wright and Rowthorn (1998) find that highly productive clusters contain a larger than expected *quantity* of FDI and Nachum (2003) reports that this imbalance is increasing. Accordingly, highly productive clusters may attract FDI, and FDI may promote cluster productivity, and we know from the work of Blomstrom and Kokko (1998, 2003) that both effects will vary by location and industry. Findings like these have prompted a re-evaluation of the spatial organisation of FDI. Within the International Business (IB) literature, the seminal call for more research on location, and in particular, location in clusters, as a determinant of FDI came from Dunning (1998). He concluded: "The extent to which MNEs promote, or gravitate to, spatial clusters within a country or region is an under-researched area" (1998, p. 58).

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Following Dunning's call, the study of FDI *into* clusters ('inward foreign direct investment' or IDI), has gathered pace (Cook & Pandit, 2010). However, the study of the promotion of FDI *from* clusters ('outward foreign direct investment' or ODI) has been neglected. For example, two important recent surveys of MNEs and clustering focus exclusively on the location of foreign subsidiaries *in* clusters, paying no attention to a cluster's propensity to *promote* ODI (Dunning & Lundan, 2008; Rugman & Verbeke, 2009). This is surprising given that a central proposition of Porter (1990), which spurred much academic and policy interest in clusters, was that advantages gained in clusters can be the foundations of successful internationalisation. In order to address this gap in the literature, the central question investigated in this study is: To what extent do strong clusters *promote* ODI?

A distinction that has long been made in the clusters literature is between two potential *sources* of cluster advantages (Hoover, 1948): *urbanisation* economies, which refer to the advantages of size and diversity within a *general* geographic concentration of economic activity (an agglomeration) (Jacobs, 1985) and *localisation* economies which refer to the advantages of size and diversity within the geographic concentration of a *particular* productive activity (Marshall, 1890). There is a debate regarding the *relative importance* of urbanisation and localisation economies (Ciccone, 2002; Glaeser, Kallal, Scheinkman, & Shleifer, 1992; Henderson, Kuncoro, & Turner, 1995; Viladecans-Marsal, 2004) which has been neglected in the emerging IB literature on clusters and FDI. This is an important omission because it is localisation economies that the recent work on clusters and FDI focuses on, Porter (1990) being of this ilk, and so the implicit assumption is that localisation economies, not urbanisation economies, are the main source of cluster advantages. This assumption needs to be tested. If it is incorrect, implications, particularly those that are *policy* related, would need to be modified. Accordingly, this study's second-order research question is: With respect to ODI, what type of economies are more important, urbanisation economies or localisation economies?

The paper is structured as follows. The next section reviews the literature that relates to the study's questions. The study's method is then stated leading to the presentation of the evidence which is discussed and evaluated. The final section concludes and draws implications for theory, practice, and policy and suggests avenues for further research.

2. Literature review

The idea that firm-specific advantages can be developed in strong clusters has been a mainstay of Porter's work (1990, 2008) and that such advantages can be leveraged into foreign markets has a long tradition in theories of the MNE (Dunning, 2000).

Regarding the development of firm-specific advantages in clusters, beyond so called 'fixed effects' (Swann, Prevezer, & Stout, 1998), advantages that exist at a location that are *not* a function of the co-presence of related firms and institutions (e.g., transportation links, climate and time-zone), there are advantages that *are* directly related the co-presence of other firms within a cluster. The bulk of the literature acknowledges and builds on the seminal work of Marshall (1890) on these advantages (Gupta & Subramanian, 2008): labour market pooling, which brings the benefits of a deeper division of labour and more highly specialised skills; the emergence of specialised input suppliers; and, technological and knowledge spillovers.

Regarding the leverage of cluster-based advantages into foreign markets, an early example of the use of locational variables to explain ODI activities is Vernon's (1966, 1979) product life cycle model. It explained the observation of early-stage production by corporate parents in their high income homes with subsequent production moving to subsidiaries in lower income and/or lower cost foreign regions. Although the reasons articulated for the US being a privileged location for innovation have clear correspondence with, for example, Porter's (1990) diamond, namely the existence of sophisticated demand and highly advanced suppliers, the model did not explicitly consider the ability to innovate, the foundation of the ability to sell in foreign markets (Nachum & Zaheer, 2005), as arising from a location in *clusters*.

Post-Vernon, Dunning's (1981) 'eclectic' or 'ownership, location, internalisation (OLI)' paradigm emerged to become the most well-known theoretical envelope for explaining FDI. Whilst acknowledging certain locational advantages, the early OLI paradigm was crude in four respects: firstly, locational advantages were conceptualised at the *country* level. Drawing from economic geography, more recent work has taken a more sophisticated approach and encouraged IB scholars to think of locational advantages at the *regional* level (Buckley & Ghauri, 2004; Rugman & Verbeke, 2009). Secondly, little attention was given to the role of location in the *generation* of the parent's original, domestically-based advantages. Thirdly, O, L and I benefits were often conceptualised discretely without overlap and without interaction. Finally, only tangible and cost-reducing or demand-enhancing locational advantages were acknowledged. Regarding these last two points, more recent work has added sophistication. Dunning (1998, 2000) emphasises that although analytically distinct, OLI advantages very importantly, do *interact with one another* and sometimes *overlap*. Dunning also indicates the growing importance of intangible and revenue generating locational advantages. For example, he maintains that the increased importance of firm-specific knowledge-intensive assets, as a source of competitive advantage has led to the increased appreciation of 'L' *as a means to enhance* 'O'. Dunning (1998, p. 54) states:

> "... as strategic asset-acquiring investment has become more important, the locational needs of corporations have shifted from those to do with access to markets, or to natural resources, to those to do with access to knowledge-intensive assets and learning experiences, which augment their existing O specific advantages."

In this work, Dunning is clearly focussed on where FDI *ends up* rather than where it *comes from*. However, clusters which are attractive to *inward* investment, may *also* offer advantages to incumbent firms which enhance 'O' advantages and so