Preface

This issue of ISMO is focused on the propensity of large multinational corporations (MNCs) to locate activities in strategically important industrial clusters, as seen from the contrasting perspectives of MNC managers and host-country policymakers. Well-known examples of this phenomenon are European electronics MNCs investing in R&D operations in Silicon Valley, or American banks building major centers in London.

The reason why this is happening is in some ways very easy to explain. Investing in leading industrial clusters is a way for MNCs to benefit from global scope by tapping into opportunities and ideas where they first emerge and leveraging them on a worldwide basis. It also has competitive elements, in that such industrial clusters are often the home bases of key competitors, so a local presence for the foreign MNC is an effective way of monitoring competitors' actions.

But while the basic phenomenon can be easily explained, there is a surprisingly limited amount of detailed research in this area. In the MNC literature it is widely accepted that MNCs need to tap into opportunities in their foreign markets through scanning units, listening posts, or other such activities (e.g., Bartlett and Ghoshal 1986; Vernon 1979), but when it comes to understanding how the tapping process is supposed to work, there are very few detailed studies (Kuemmerle 1996; Westney 1990). Similarly, in the economic development literature there is a long tradition of research into the costs and benefits of foreign direct investment to the host country, and there is a large and growing literature around the role of industrial clusters as drivers of growth, but there is very little research that brings the two topics together—that is, around the role of foreign direct investment in industrial cluster development.

The purpose of this issue of ISMO, then, is to bring together for the first time a set of papers that are explicitly concerned with understanding the why and the how of MNC investment in overseas industrial clusters. As noted above, we are deliberately doing this with a dual perspective—with regard to its implications for MNC strategy and organization, and with regard to host-country policy towards inward investment. Our belief is that these two perspectives are rarely brought together, yet each side has a lot to learn from the other. MNC managers need to understand the dynamics of the cluster in which they are investing, and the sorts of incentives that are on offer. Policymakers in turn need to get a better grip on
what makes their industrial clusters attractive, and the sorts of changes they can
make to enhance their attractiveness in the future.

This volume consists of five papers, two written explicitly from the MNC-
strategy perspective (Frost and Zhou, Zander and Sölvell), two written from the
host-country policymakers’ perspective (Peters and Hood, Birkinshaw), and one
that bridges the two perspectives (Enright). In this introduction, our purpose is to
provide a brief overview of the papers and to discuss a number of the common
themes that can be identified in them.

Overview

It is worth providing a brief introduction to the concept of industrial clustering
and foreign direct investment. Industrial clusters are agglomerations of compet-
ing and complementary firms that are located in close geographical proximity for
three primary reasons: (1) access to a local pool of labor with relevant expertise
and experience; (2) access to local suppliers and customers, again with relevant
expertise; and (3) the possibility of so-called knowledge spillovers between firms
(Krugman 1991; Malmberg, Sölvell, and Zander 1996; Marshall 1916). While the
phenomenon of industrial clustering has been recognized for more than a century,
its popularity has increased in recent years through Porter’s (1990) influential
work The Competitive Advantage of Nations. Porter argued that the core of a
nation’s competitiveness lay in the dynamism of its leading industrial clusters,
which was in turn a function of four interrelated factors: competition between the
firms in the cluster, the existence of related and supporting industries, demanding
customers, and supplies of factors of production, especially “created” ones such as
specialized and advanced labor.

The cluster logic helps to explain why in so many industries the leading global
competitors are all headquartered in the same location—Silicon Valley for IT,
Tokyo for consumer electronics, Northern Italy for textiles, London for auction
houses, and so on. It also provides an explanation for some of the patterns of
expansion of MNCs based in different locations, because they invest in leading-
edge clusters abroad as a means of gaining access to the some of the agglomera-
tion economies noted above, particularly the spillovers of knowledge from their
competitors. Ericsson and Nokia, for example, both have significant R&D opera-
tions in Silicon Valley today, to stay close to leading developments in the elec-
tronics and telecommunications industries. In the area of mobile Internet, companies
such as Ericsson, Nokia, Microsoft, Intel, and Oracle have clustered around
Stockholm. Some companies have taken this logic a stage further by actually
relocating HQ functions to the industrial cluster in question. For example,
Pharmacia & Upjohn moved its HQ from London to New Jersey to become a part
of the leading global cluster of pharmaceuticals firms, and Ford recently announced
that it would move its European HQ from London to Cologne, Germany, because
they see Germany as Europe’s most competitive automobile market.
From the perspective of host-country policymakers, the emergence of Porter’s (1990) framework for mapping national competitiveness has also been very influential. Most inward investment agencies in developed countries today use some form of cluster analysis to identify the sectors to which they are hoping to attract investment. While some of this is simply based on wishful thinking (Enright 1999), it is primarily based around an understanding of those industries in which the country is already strong, such as telecommunications, healthcare, forestry, metals, and IT, in the case of Sweden.

While there is strong agreement today among most host countries that inward investment is valuable, there continues to be a vibrant debate around the relative merits of different forms of investment and the implications of these different forms of investment for the long-term development of the cluster or country in question. These questions will be raised in two of the papers below.

The MNC perspective: investing in foreign-industry clusters

While the idea that MNCs should tap into the knowledge base of foreign industrial clusters is well established, it is surprising how little we know about the extent to which it is actually achieved or the processes that are employed.

The first paper, by Tony Frost and Changhui Zhou, directly addresses the question: To what extent do MNCs actually locate their activities according to the knowledge base of the chosen location? Their basic proposition is that the locations of foreign R&D investments by the MNCs are determined not just by traditional factors such as labor cost and market proximity, but also by the technological profile of the host location. Thus, the more technologically active the location is in a given industrial sector, the more foreign MNCs operating in that sector will view it as an attractive cluster, and the more R&D investments they will make there.

Frost and Zhou develop a number of specific hypotheses relating facets of a given location’s technological profile to the incidence of patents being issued to foreign-owned companies in that location. Using data at the U.S.–state level for the period 1977–92, they find strong support for their basic argument. Specifically, the scale of R&D conducted in a given state is a strong predictor that foreign-owned companies in that state will gain patents. Moreover, this relationship becomes significantly stronger over time, suggesting a process of coevolution between the indigenous and foreign-owned firms in a given location. This provides strong supporting evidence of the cluster phenomenon, and more importantly of the role that foreign companies can play in cluster development. Thus, unlike the Scottish semiconductor industry discussed by Peters and Hood later, many of the clusters represented in Frost and Zhou’s dataset benefit greatly from the innovative capacity of their foreign-owned members.

The second paper, by Ivo Zander and Örjan Sölvell, looks at these issues from the perspective of the MNC as a whole in a conceptual analysis of cross-border innovation. The paper starts with the basic observation that host countries—and
typically specific clusters of activity within those countries—represent an important source of knowledge and ideas for the MNC. It then goes on to describe two rather different approaches used by MNCs to leverage these sources of knowledge. The first is built around duplication of activities in different countries and the creation of intensive knowledge-sharing structures to facilitate the interaction between them. The second involves specialization of technological activities by country, often termed centers of excellence or multiple home bases (Sölvell and Zander 1995), with a relatively clear demarcation of the boundaries between them. The paper then concludes with the identification of a number of issues that need further research in the field of cross-border innovation.

The key insight that emerges from this paper is that despite its increasing prevalence, cross-border innovation continues to be extremely difficult to manage. As Zander and Sölvell observe, many supposedly global innovation projects end up being split into a series of sequential or pooled local projects—both because of the locally “embedded nature of the knowledge” and because of the prohibitive costs of coordination across countries.

Taken together, the first two papers offer some important advances. Frost and Zhou provide the first definitive evidence that the location of foreign R&D activities is “knowledge seeking” or, rather, directed towards those clusters with high levels of related patenting activity. Moreover, they show that these R&D activities are also important contributors to their local clusters, highlighting the idea of interdependence between clusters and foreign MNCs that Enright develops below. Zander and Sölvell take a more applied perspective by illuminating many of the practical difficulties associated with tapping into and integrating bases of knowledge in multiple countries. Their paper is a caution against taking the concept of tapping too far, because while it is alluring in principle, the costs often end up exceeding the benefits.

The host-country perspective: attracting foreign investment into industry clusters

The next two papers take the perspective of the inward-investment agency, the body that is typically charged with encouraging and providing incentives to foreign MNCs.

First, the paper by Ewen Peters and Neil Hood provides a detailed analysis of the cluster approach to regional development, with examples drawn from the semiconductor and software clusters in Scotland. Their argument is that the cluster approach can be extremely powerful, but it needs to be applied with care, especially with regard to such issues as cluster identification and the choice of policy tools to aid cluster development.

The two case studies provide clear illustrations of these issues. The Scottish semiconductor cluster is very strong on such measures as exports and job creation, but the linkages between component and end-product manufacturers are very
weak, and the R&D–intensity of the cluster is relatively weak (though improving). In addition, all of the major semiconductor manufacturers are foreign MNCs. In contrast, the software cluster has high levels of local ownership, but it is relatively local in scope, and the physical links to customers and suppliers are not strong. Peters and Hood argue that this is partly a function of the software industry, in that much development work occurs in virtual space, though they also discuss a major policy initiative under way at the moment to strengthen this cluster.

The key point emerging from this paper is that every cluster has its own idiosyncratic qualities, so for policy initiatives to be effective they have to be carefully targeted to the specific needs of the cluster in question. Indeed, an important conclusion from this study is that “top-down” approaches to cluster identification are inherently flawed, because they cannot capture the quality of linkages that are at the heart of a cluster’s dynamism. Instead, “bottom-up” approaches are necessary, labor-intensive as they are, if the cluster approach to economic development is to be effective.

The paper by Julian Birkinshaw stays with the theme of cluster development, but with an explicit focus on the effect of foreign investment on industrial clusters. Three competing arguments are put forward: that foreign investment can be bad for, good for, or neutral towards the upgrading of an industrial cluster. On the basis of these arguments, an organizing framework is put forward around the current level of dynamism of the industry cluster and the rate of growth of the industry sector in question. This leads him to conclude that where the cluster is highly dynamic, foreign investment can always be seen as positive, but where the cluster is less dynamic, foreign investment is likely to provide a less stable base for future investment.

In the empirical section of the paper, Birkinshaw examines the emerging IT cluster in Stockholm, and in particular the profile of the foreign-owned firms in that cluster. Overall, the picture that emerges from this analysis is of a relatively immature cluster that is quite tightly interconnected and with some well-embedded foreign firms, but focused primarily on local customers (similar, in fact, to the Scottish software cluster described by Peters and Hood). A number of policy implications are drawn from this analysis, most notably that attracting investment in emerging clusters is about managing perceptions. Stockholm, like so many other cities, aspires to IT leadership. If a critical mass of foreign firms can be attracted in a specific field—Web design, for example—then this can have a snowball effect on other sectors.

The MNC and the host country: fostering interdependence

The final paper by Michael Enright is positioned explicitly around the interdependencies between multinational corporations and industrial clusters. As he argues, the prevailing view of industrial clusters sees them either as independent of foreign investment (or at least neutral toward it) or dependent on foreign invest-
ment, as in the case of Singapore or Ireland. A third and emerging view is to see clusters and foreign investment as interdependent phenomena, such that clusters provide sources of knowledge and resources to MNCs, and MNCs in turn provide investment and other inputs into clusters.

Enright provides a detailed case study of the Hong Kong financial-services cluster to illustrate and expand on this argument. Hong Kong is neither a traditional indigenous cluster like Silicon Valley that has emerged through entrepreneurial start-ups, nor is it a typical “satellite” cluster of foreign-owned operations detached from the rest of the economy. Instead, it is a cluster of primarily foreign-owned companies that have established strong regional headquarters in Hong Kong and, more importantly, built tight interlinkages with one another and with the local economy.

The Hong Kong case study leads to an important conclusion: that the host-country environment need not have advantages that spawn local firms to support vibrant internationally oriented clusters that are dominated by foreign firms. Instead, Enright argues, the host country creates a set of location-specific advantages that can be used by firms that have developed the rest of their business systems elsewhere.

Conclusion

Taken together, the five papers provide a fascinating overview of the issues facing MNC managers and host-country policymakers on the subject of industrial clustering. Clearly, the agendas of MNC managers and policymakers are very different, but as the papers show, there are many important areas of overlap, so for practitioners and researchers in both fields it is important to be at least aware of what is happening on “the other side of the fence.” Moreover, as the final paper argues, it is possible to achieve some level of reconciliation between the two sides. Certainly in an economy such as Hong Kong’s, one can expect MNC managers and local policymakers to have a high degree of shared interests around economic development. And increasingly, that is likely to be the case in other clusters as interdependencies between local and foreign firms are developed.

Julian Birkinshaw
London Business School

Örjan Sölvell
Institute of International Business,
Stockholm School of Economics

References


