7 Firm-Strategies and the Research-Intensity of US MNEs’ Overseas Operations: An Analysis of Host-Country Determinants

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7.1 INTRODUCTION

Previous studies of the determinants of overseas R&D in MNEs have analysed the differences, between firms or industries, in the proportion of total R&D that is carried out in subsidiaries abroad. In particular, these studies have approached consensus in suggesting that internationalisation of R&D has very broadly reflected the internationalisation of sales and production. However it has also been very persuasively argued that, within this general picture of market-supporting overseas R&D, the nature and intensity of the work carried out in a particular country will differ considerably according to the role played by the operations it is required to support. This chapter seeks to analyse the determinants of the R&D-intensity of US subsidiaries in particular host countries, in order to investigate the relation between the strategic role of these subsidiaries’ operations and their need for technological support.

In the context of import-substitution subsidiaries, focusing their activity on the supply of their host-country market, it has long been accepted that a role exists for relatively small-scale R&D-backup, this obtained from Support Laboratories (SLs) which aim to adapt existing
product and process technology to local needs. Where the subsidiaries are predominantly export-oriented it may be suggested that the need for R&D support depends on which of two types of operations are most important. Where the subsidiaries simply play an externally-determined role in a globally-coordinated network of supply facilities, producing an existing product in predetermined ways, there is only a very limited role for even SL operations (to assist the effective implementation of the established production process). However, if the subsidiary is given a mandate to take wider responsibility for not only the production of a product, but also its creation, development and innovation, a role exists for much more ambitious Locally Integrated Laboratories (LILs). These integrate the laboratory’s work much more thoroughly with subsidiary management, marketing and engineering in order to implement the more dynamic role of the subsidiary in fulfilling its exclusive responsibility for the mandated product.

Beyond these demand-side forces there may also be a role for supply-side influences. Thus whatever the discerned need for local R&D-support in overseas subsidiaries, the ability of the host-country science-base to provide the resources to fulfil the role efficiently, and cost competitively, may also be relevant. An extension of this supply-side perspective may occur where the strength of the local technological capacity that is accessible to a MNE exceeds the needs of its subsidiary’s immediate activities. Under such circumstances an Internationally Interdependent Laboratory (IIL) may be set up, to play a role, alongside similar laboratories in other countries, in the longer-term basic-research programmes of the MNE group. Such an IIL would have no systematic direct supporting relationship with host-country production facilities.

The independent variable tested, to investigate hypotheses developed in the light of the broad views outlined above, is the R&D-intensity (RAD) of the operations of US MNEs’ subsidiaries in particular countries. This is defined as ‘expenditure for R&D performed for affiliates