

Empirical Study of the Formation of Internal Innovation Capability and External Linkages in ASEAN Economies

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Abstract

This paper analyzes how firms in ASEAN countries obtain and accumulate information on technology, know-how, and the market and then assimilate it into their internal capability to promote innovation. In so doing, an index is constructed from various factors related to creating innovation by using AHP (Analytical Hierarchical Process). This index is a proxy of the internal innovation capability of firms. Using this index, how product and process innovation are related to internal capability. Another estimation objective in this paper is to handle the endogeneity problem of variables. This methodological problem is related to reverse correlation between innovation and the internal capability, and we have to prove that the relationship between those variables is causation rather than simple correlation. Coping with these theoretical problems, the treatment model and other methods are utilized to solve the above-mentioned two problems. In addition, this study also uses the propensity score matching (PSM) method to handle so-called “sample selection bias.” As a result, we prove the following hypotheses: (1) Internal capability promotes innovation significantly; (2) External linkages, particularly MNC/JC, have an influence on enhancing internal capability; (3) Internal capability affects external linkages, that is, firms with the higher internal capability index tend to have more external linkages; and (4) External linkages have a less significant effect on innovation, as they enhance internal capability and then promote innovation indirectly. Finally, strategic policy measures to promote innovation in ASEAN countries are provided based on these analyses.