

The Relationship between Innovation and Performance of Korean Manufacturing Firms

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ABSTRACT

Manufacturing industry has been a principal contributor to growth of the Korean economy for forty years. Especially, information technology related manufacturing sectors and conventional heavy industries are still major sources of current economic growth. The technology innovation has been recognized as critical factors to the productivity growth of firms. Therefore, Korean government is using its capacity to induce innovation in manufacturing industry and through various support and subsidy policies it aims to improve R&D intensity of firms to enhance productivity growth in manufacturing. However, the actual proof for a positive relationship between R&D inputs and productivity growth in the manufacturing sectors is not obvious. This has resulted in difficulties to design public subsidy policies. This paper tries to investigate and analyze the relationship between innovation and performance of Korean manufacturing firms. In particular, this paper investigates the links and

causality directions between innovation input and output, and also between the innovation output and labor productivity growth at the firm level. In addition, this paper investigates which environmental factors have effect on the innovation itself. Recent improvements in econometric methodologies, dealing with simultaneity and selection bias, are also taken into account. The empirical result is based on the Korean Innovation Survey 2002 (KIS2002) combined with financial data of firms. Results suggest that the actual linkage going from R&D investment to the innovation output was not observed. Policy makers must have a mature reflection on this issue before designing policy measures to enhance productivity.

Keywords: Innovation Input, Innovation output, Productivity, Korean Manufacturing

JEL Classification Numbers: C33, E22, L60, O32, N65