

KIBS spillovers in the knowledge production function of manufacturing and services sub-sectors at the USMCA countries

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ABSTRACT

In this paper, the knowledge production function is estimated by regressing R&D knowledge spillovers, capital investment and labor productivity on innovation generation, variable measured as filled patents, in the manufacturing and services sectors of each one of the three countries that integrate the USMCA Agreement (United States-Mexico-Canada Agreement). The results state that direct and indirect spillovers of KIBS R&D expenses, reinforced by capital investment and labor productivity measures, have a significative influence on the number of patents filled by each country over the years analyzed on those sub-sectors of the USMCA economy. That positive and causal effect generates knowledge production value chains from KIBS consultancies to the manufacturing and the services subsectors and backwards therefore reinforcing the value creation system of those services; also, by promoting the development of new goods and services by innovating in the production or administrative processes of the enterprises immerse on those subsectors (the embodied effect). The conclusions could serve as basis for the analysis of the sectorial policies that have to be stipulated by the conjunction of the politicians of the three countries, in the institutions already been established by the USMCA agreement in recent years.

Keywords: KIBS, I-O direct and indirect impacts, USMCA, knowledge spillovers, manufacturing and service sectors, patents, innovation, knowledge production function.