

國家與公共研究機構在產業技術升級 過程中的角色及演化： 台灣工具機業*

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本文重點是在討論國家，特別是國家所設立之公共研究機構在新興工業國家產業技術升級中的角色及演化。有別於許多文獻強調國家以及公共研究機構在後進國家產業技術追趕進程中的決定性影響，透過探討台灣工具機業升級過程中，公私部門間的互動內涵及其演變，本文認為國家對這個產業由上而下的成功干預，極大部分需歸功於國內廠商由下而上的努力，其巧妙地利用國家貧乏的工具機產業政策，使之朝向至對該產業有利的方向，也因此讓國家在台灣工具機業升級的過程中的建設性角色得以浮現。同時，本文更分析一個能力較為受限的公共研究機構，如何受益於私部門夥伴的支持，使其能夠看似有效地發揮其被國家賦予的政策功能，並隨著與產業互動關係的改善，逐漸找到其在支持後進國家產業轉型過程中的功能性角色。

關鍵字：發展型國家、公共研究機構、技術升級、工具機業、台灣

The Evolving Roles of the State and Public Research Institutes in the Technological Upgrading Process of Industries: The Case of Taiwan's Machine Tool Industry

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ABSTRACT

Most literature on industrialization of East Asian newly industrializing countries (NICs) focuses on the NIC states as the dominant factor explaining latecomers' accelerated technological catch-up. Through studying the dynamics within the public-private interactions during the upgrading process of Taiwan's machine industry, this paper rejects the emphasis on the decisive role of the state or, more specifically, its public research institute (PRI), in directing the process of late industrialization, and argues that, in the case of the Taiwan's MT industry, it is the bottom-up efforts of local firms, which ingeniously utilized and redirected the state's poorly formulated policy measures to work in their favor, that made possible the emergence of a seemingly constructive role of the state in the upgrading of an NIC industry. In addition, this study shows how a PRI with inherent limited capabilities has benefited from the improvement of its relationship with the private partners and gradually found its functional position in supporting the technological advancement of the industry.

Key Words: developmental states, public research institutes,
technological upgrading, machine tool industry, Taiwan