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Outsourcing and the rise of innovative software services in Bangalore

Rasmus Lema

Over the last three decades, outsourcing has had a big influence on the international division of labour. It is clear that it has been a major reason for the enormous build-up of production capabilities in the developing world, in particular in the export platforms of Asia. However, we do not know whether the outsourcing of production and services from OECD to developing countries has triggered the transition from production to innovation capability or not. This is the question addressed in this thesis. It examines this question by focusing on the global software-outsourcing industry and the supply platform in Bangalore (India), one of the most prominent cases of latecomer development in the global economy.

In order to examine this question, the thesis suggests new categories for assessing innovativeness in this complex sector. It shows that there is considerable scope for innovation as an incremental extension of routine outsourcing. A segment of Bangalore software suppliers has entered a new phase of building innovative capability. This capability is not restricted to process and organisational capability but extends to problem-framing innovative capability. This challenges the widely held opinion that only lower-order activities are outsourced and that relationships are unlikely to evolve beyond certain threshold levels because they do not provide proximity to tacit knowledge and domain expertise. This finding goes against the view that Bangalore's software industry has not progressed beyond producing to customers' specifications. More generally, it challenges the view that advanced innovation capabilities are beyond suppliers in global value chains.

While the documentation of advanced innovation capability is an important contribution in itself, the main contribution lies in showing *how* capability development occurs in global value chains. 'Supplier learning' is often assumed, but it remains a 'black box' in most of the literature on outsourcing. The thesis shows how outsourced activities focused on labour-intensive 'production activities' can (over time) provide a stepping-stone for acquiring high-order innovative capabilities. It examines the factors that explain this transition on the supply side and the demand side.

On the supply side, the study focuses on learning events as the main unit of analysis and examines how outsourcing influences the formation of new innovative capability. The thesis emphasises that while outsourcing creates new spaces, the exploitation of these spaces is not automatic; it shows how projects undertaken by suppliers have mobilised resources – ideas, investment and knowledge – to capture new opportunities in global chains. This creation of capability at the project level is important, but new capability is only fully realised via firm-level competence leveraging across different buyers and business lines. The main determinants of the acquisition of new capabilities are global linkages and firm internal strategies and initiatives. Local linkages play a less significant role. This poses important questions for the debate on local clusters and innovation systems.

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