A Series of Innovation Policy Briefs

Promoting Innovation and Finance for Productivity Growth in Low Income Countries (LICs)

DFID/Tilburg University research:
Co-ordinated Country Case Studies - Innovation and Growth, Raising Productivity in Low Income Countries
http://www.tilburguniversity.edu/dfid-innovation-and-growth/

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In today's globalising world, economists and business community actors acknowledge the importance of innovation and finance for productivity growth in facilitating economic growth and development. Recently, the promotion of innovation in Low Income Countries (LICs) has entered the agenda of policy-makers and international development agencies. Many agree that innovation is crucial in these countries, because innovation is fundamental for growth, in order to catch up with middle and high income economies.

Promoting innovation in Small and Medium-sized Enterprises (SMEs) in the manufacturing sector in LICs has a particularly positive impact on development. SMEs usually operate on the edge of the formal and informal sector and have low levels of productivity and competitiveness. The manufacturing sector in LICs is typically characterised by a limited share of total GDP as compared to the agriculture and services sectors. Innovation within SMEs in manufacturing enables these enterprises to grow, resulting in a better balanced economic structure and generating employment opportunities for poorer groups over the long run. Moreover, promoting innovation in domestic manufacturing is a means towards import substitution and will increase the competitive position of firms on the world market.

Innovation is mostly associated with putting into practice high technological radical inventions and breakthroughs involving significant investment in Research and Development (R&D). However, innovation manifests itself differently in LICs, through incremental adoption and adaptation or new combinations of existing technologies (Szirmai et al., 2011). It is essential both in advanced economies and LICs that firms create competitive advantage and raise productivity by 'perceiving or discovering new and better ways to compete in and bringing them to market', which is, according to Porter (1990), the ultimate act of innovation.

The increased interest in promoting innovation in LICs resulted in more attention and efforts towards the development and implementation of innovation policies. Common innovation policy approaches in advanced economies explicitly aim at promoting the introduction, spread and efficient use of new technology, products, services and processes in markets. The so-called 'Science, Technology and Innovation (STI)' policy refers to the creation and strengthening of a network of formal Research and Development (R&D) institutions that support firms in the innovation process. However, policy makers, development practitioners and academics face challenges in actually designing and implementing such innovation policies - particularly for LICs - because promoting innovation involves a very complex combination of supporting and improving R&D, science and technology, entrepreneurship, the institutional and legal framework, education and finance, to name but a few.

Moreover, recent insights suggest that the Western STI approach may be less applicable for LICs because innovation, particularly in SMEs and manufacturing, often does not concern technological inventions initiated by advanced R&D institutions. More often, innovation takes place in an incremental way within firms through learning by doing, using and informal interactions and practices between individuals and firms. Moreover, saving,

investment and access to formal and informal finance for innovation and productivity growth take different forms in an LIC context.

With a view to better understanding innovation and productivity policy mechanisms, the British Department for International Development (DFID) commissioned Tilburg University (The Netherlands) and research partners to undertake a 4-year fundamental research project. The project is entitled '*Coordinated Case Studies – Innovation for Productivity Growth in Low Income Countries'* and aims to understand SME-level innovation in the manufacturing sector, its processes, innovation system and finance mechanisms as well as the firm-level determinants of innovation, critical factors for its diffusion. This empirical research project is based on primary data from 10 African and Asian countries (Kenya, South Africa, Tanzania, Uganda, Ethiopia, Ghana, India, Vietnam, Bangladesh and Indonesia).

Research and evidence-based policy

The core of the research involves fundamental econometric analyses within two themes, leading to a series of scientific articles as the key project output. The '*Innovation Systems'* theme covers the institutional context of manufacturing SMEs in LICs that influences the process and diffusion of innovation. The central question is what firm-level and regional-level factors hinder or foster the engagement of firms in innovative activities. Researchers within this theme conduct surveys in the countries of study in cooperation with the World Bank. The *'Finance for Productivity Growth'* theme focuses on the effects of access to finance in determining productivity of SMEs by surveys and several randomised controlled trials. Key in the analyses are the interactions between firm productivity dispersion across SMEs and firm-level characteristics, such as entrepreneurial traits, formal and informal country-level factors and access to finance.

The research aims to address relevant societal research and policy issues; the actual constraining and enabling issues perceived by SME owners and managers at firm level. For this reason, the project includes an identification of these issues grounded in complementary qualitative case study research in the countries of study. The subsequent **policy and research issues reports** provide context and a holistic analysis of institutional (policy) conditions and barriers at the firm, regional, national and international level, enabling or preventing innovation and raising productivity in manufacturing SMEs.

Tilburg University acknowledges that innovation policy processes are complex and rarely linear or logical, with researchers simply presenting technical evidence in policy briefs and expecting policy makers to act upon their recommendations. Policy decisions emerge from politics, judgment and debate of a network of actors. The project therefore organised innovation stakeholder meetings to review various perspectives of 'policy and research issues' of promoting innovation in manufacturing SMEs.

By comparing and combining the scientific articles, policy and research issues reports and the stakeholder meetings, Tilburg University will develop policy implications and suggestions with a view to promoting innovation and raising productivity in manufacturing SMEs. The idea is that policy makers incorporate these ideas into policy development, supporting the process of evidence-based policy making. In terms of project output, policy implications are discussed and disseminated through **a series of policy briefs**. These briefs provide practical and operational insights to help policy makers address specific determinants, mechanisms and interactions that apply to

SMEs in manufacturing and their innovative capacity. The policy brief format is typically a 2-page summary scientific article followed by a 2-page reflection on practical applicability for policy makers.

The policy briefs target a broad audience of policy makers. Innovation policy makers are usually understood as government officials and staff within various ministries (S&T, industrialisation, higher education and economic planning). However, innovation policies and strategies are equally designed and implemented by managers, business owners and branch organisations in the private sector. Likewise, development agencies, donors and NGOs also consider and integrate (inclusive) innovation policies in their programmes and projects.

Series of policy briefs

In the course of the project, the researchers will write 20 original scientific articles within the two themes. From each article, a policy brief will be developed. Under the 'Innovation Systems' theme, the following articles are translated and available (forthcoming) as policy briefs:

- *Human Capital and Innovation in Developing Countries: A Firm Level Study* by Annelies van Uden, Joris Knoben and Patrick Vermeulen. Radboud University Nijmegen, 2014.
- *Inter-industry Total Factor Productivity Spillovers in India* by Marijke Bos, Benedikt Goderis and Gonzague Vannoorenberghe. Tilburg University, 2014.
- *Institutions, Resources and Innovation in Developing Countries: A Firm Level Approach* by Laura Barasa, Peter Kimuyu, Patrick Vermeulen, Joris Knoben and Bethuel Kinyanjui. University of Nairobi and Nijmegen University, 2014.

(Another seven scientific articles are expected under the 'Innovation Systems' theme in the coming two years.)

Under the 'Finance for Productivity Growth' theme, the findings of the following working papers are translated and available (forthcoming) as policy briefs:

- *Entrepreneurial Saving Practices and Business Investment: Theory and Evidence from Tanzanian SMEs* by Thorsten Beck, Haki Pamuk and Burak Uras. Tilburg University, 2014.
- *Informality and Access to Finance: Evidence from India* by Thorsten Beck and Mohammad Hoseini. Tilburg University 2014.
- *Mobile Money, Trade Credit and Economic Development: Theory and Evidence* by Thorsten Beck, Burak Uras and Haki Pamuk. Tilburg University, 2015 (forthcoming)

(Another seven scientific articles are expected under the 'Innovation Systems' theme in the coming two years)

The original working papers, policy briefs and regular updates are accessible at:
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