

Export and Innovation in Sub-Saharan Africa

Policy brief DFID/Tilburg University research: *'Enabling Innovation and Productivity Growth in Low Income Countries' (EIP-LIC)*.

<http://www.tilburguniversity.edu/dfid-innovation-and-growth/>

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Innovation directly influences exporting behaviour, because firms often innovate as a strategy to gain international market share. A firm's ability to successfully compete on the international market is influenced by its capacity to introduce and market both new and improved products. It is for this reason that the link between innovation and exporting has received considerable attention. One strand of research investigates the complementarity between exporting and innovation while the other examines the direction of causality. Nevertheless, few studies take into account the possibility of both causalities occurring simultaneously. Furthermore, the majority of these studies have been conducted in developed countries. For instance, previous studies find evidence of learning by exporting in Sub-Saharan Africa (SSA), implying that participation in international markets facilitates knowledge flows from customers and competitors. However, it remains unclear how this mechanism affects the exporting-innovation relationship.

In the framework of a DFID-funded research project entitled *'Enabling Innovation and Productivity Growth in Low Income Countries (EIP-LIC)*', a team of researchers from the University of Nairobi and Radboud University investigated the bi-directional relationship between innovation and exporting in four countries in Sub-Saharan Africa. Specifically, the research addressed the question of whether there is a positive relationship between innovation and subsequent exporting and if this relationship is mediated by market creation and customer feedback. The original working paper is entitled 'Export and Innovation in Sub-Saharan Africa' (2017) by Laura Barasa, Bethuel Kinyanjui, Joris Knobens, Peter Kimuyu and Patrick Vermeulen¹. The study sample consists of 500 firms located in SSA, including Ghana, Kenya, Tanzania and Uganda.

Research approach and findings

The research finds that the relationship between innovation and subsequent exporting is positive and *significant*, while there is a positive but *non-significant* relationship between exporting and subsequent innovation.

The team also find evidence that market creation mediates the innovation-exporting relationship since the innovation process entails the introduction of new products and services to the marketplace. Market creation mediates about 32.5% of the effect of innovation on subsequent exporting. In line with this, the results suggest that technology push and supply-driven mechanisms account for the relationship between innovation and subsequent exporting in the context of SSA.

¹ The paper is accessible at the project's website (<http://www.tilburguniversity.edu/dfid-innovation-and-growth/>)

Similarly, but to a much larger extent, customer feedback is found to mediate about 67.4% of the effect of exporting on subsequent innovation. This suggests that the demand-pull mechanism is critical in explaining this relationship, a factor which has received scant attention to date. The empirical evidence suggests an important policy implication, that the recognition of market needs from customer feedback in the export market constitutes a major driving force of innovation in SSA.

Policy implications

The findings reveal that whilst the main effect for the innovation-exporting relationship is significant, the reverse relationship remains weak. Hence, innovation policies aimed at fostering product innovation by providing incentives may be crucial for exporting. Such policies may be useful in fostering the development of innovations with a high degree of novelty and originality, which are likely to promote exporting through the creation of new market space. The qualitative report of EIP-LIC provides details on a number of such cases.



The business owners interviewed in Ghana and Kenya introduced original and new products with an African flavour (palm oil, Kikoy beach towels and African legends games). Their focus on high quality and original products brought export success.

Regarding the demand-pull mechanism underlying the exporting-innovation relationship, an effective policy avenue could be to facilitate customer feedback on high quality African products through developing ICT infrastructure investments or mobile applications (review apps), enabling faster response to market needs. In addition, management and commercial education providers could further strengthen their emphasis on the importance of customer feedback.

While the research shows a stronger causality in one direction, the association between exports and product innovation appears evident. Policies aiming to promote innovation and exports should be integrated rather than designed separately. A pragmatic policy approach would include an innovation dimension in export policies, and an export dimension in innovation policies, such that both innovation and exporting increase.

Foreign competition and foreign clients provide strong incentives for firms to innovate. Trade liberalisation policies may thus generate some benefits in terms of innovation. This includes the development of export processing zones facilitating administrative procedures and logistics to enable firms to develop original and innovative products.

This policy brief is the product of a research project funded by the British Department for International Development (DFID) entitled 'Enabling Innovation and Productivity Growth in Low Income Countries' (EIP-LIC). The project is implemented by Tilburg University (The Netherlands) and explores SME-level innovation in Low Income Countries (LICs) and factors that contribute to or limit its diffusion. Data collection and research collaborations took place in 10 African and Asian countries (Bangladesh, Ethiopia, Ghana, India, Indonesia, Kenya, Tanzania, South Africa, Uganda and Vietnam). The policy implications of this research are presented in a series of policy briefs, targeted at a broad audience of policy makers within governments, business and development agencies with a view to quantifying research outcomes and promoting evidence-based policy making.