

Oxford Department of International Development



# Innovation Under the Radar in Low Income Countries: Evidence from Ghana

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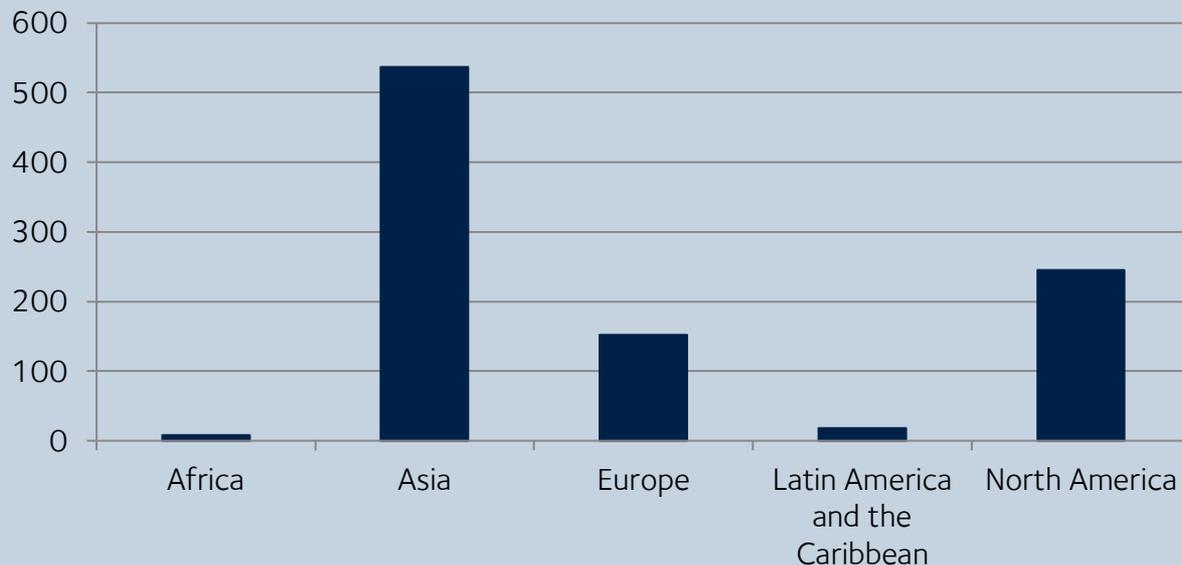
UNU-WIDER: "Learning to Compete:  
Industrial Development and Policy in Africa"  
Helsinki (Finland)  
June 24-25, 2013



# Stylized Facts

- Innovation diffusion and adoption is a key element of industrialisation and catch-up in developing countries
- Most of innovations are concentrated in a few countries

Patents granted (2011) (in thousands)



# Stylized Facts

- Innovation diffusion and adoption is a key element of industrialisation and catch-up in developing countries
- Most of innovations are concentrated in a few countries
- Diffusion of knowledge relies on technological efforts as well as sufficient human and financial resources and absorptive capacity in firms and industries

# Definition

Broader definition of innovation:

“Adoption of new product or process, or new organisational and marketing practices (where “new” means new to the world or new to the country or the firm) (Oslo Manual, 2005) but, also new business models and new sources of supply (Schumpeter)”

# Motivations of this Study

- Which kind of innovation is found in low-income countries (LICs) and how innovation is diffused to and spread within LICs?
  - Which is the current state of innovation in Ghanaian's firms?
  - Which are the channels of innovation diffusion, within and to Ghana?
  - What are the firms' perceptions on the current innovation policies in Ghana?

# Evidence from Literature

- Limited evidence of innovation in LICs (Martin, 2012)
- Innovation in LICs is more strongly context-dependent than in most industrialized countries (Altenburg, 2009)
  - Less diversified sectorial composition
  - Lower level of specialization
  - Large informal sector
  - Large share of FDI
- Recognition of the people living at the base of the Pyramid as innovators and new potential consumers (Prahalad and Mashelkar, 2010)

# Methodology and Sample

- Qualitative approach: Case studies
- Purposive sampling technique
- 3 Industries: Textile, food sector, firms working in the construction business
- 2 sectors: Formal and informal

Image 1: Formal (left) and informal (right) establishments in the textile sector.



Image 2: Formal (left) and informal (right) establishments in the food processing sector.



# Methodology and Sample

- Qualitative approach: Case studies
- Purposive sampling technique
- 3 Industries: Textile, food sector, firms working in the construction business
- 2 sectors: Formal and informal
- 10 firms and a total of 32 in-depth interviews among managers and workers
- Strategy: Within-case and cross-case comparisons

- We found innovation activities in broad sense, not only in production process and improved products, but also often seen in new or improved management and marketing practices
- Most of the innovations are incremental and not ground breaking. However, we also captured some innovations that are believed to be “new to the world”
- Innovations are not industry or sector specific. In less structured establishment, innovation is driven by people with characteristics that make them overcome the constraints distinctive of LICs

- Learning and non-R&D based product and process innovation
  - Firms engaged in products innovation to increase market opportunities, maximize the profit, optimize the production and reduce the waste, or to meet specific demand from suppliers
  - Most of the firms had introduced new machinery that increase efficiency and quality
- Non-technological innovation in marketing and management practices
  - Innovations in marketing range from improving the packaging, to communication with costumers and adding services
  - Organizational innovations include cross-training, subletting, and outsourcing services

# Innovation Diffusion from *within* and *outside* Ghana

- Innovation diffusion *within* Ghana
  - Training courses
  - Being members of clusters
  - Market / Competitors
  - Collaborations with local Universities
- Innovation diffusion from *outside* Ghana
  - Internet
  - Social network and travelling abroad
  - Collaboration with foreign institution

# Space for Policies Innovation

- General consensus on the validity of industrial and innovation policies in Ghana but pessimism on their implementations
- Space for policy innovation
  - Strengthening the training of workers
  - Strengthening knowledge transmission from outside Ghana
  - Incentives for innovation (managers and workers)
  - Policies to promote the “MADE IN GHANA” (abroad and in the country)

# Preliminary Conclusions

- Ghanaian firms are active in innovation although most of the innovations are incremental and not ground breaking
- We observed innovation activities in broad sense, across sectors and industries
- Innovation seems to be more driven by personal initiatives than Institutions
- Space for policies implementations

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