



How will emerging automation technologies impact employment?

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Introduction

- The SDG Goal 8 speaks directly to employment – decent work and economic growth.
- However and arguably, employment is directly or indirectly linked to many of the other Goals. Employment may be synonymous to good health, good life, access to education and other resources etc.

Issues for LICs

- Challenges in most African countries is high unemployment and underemployment/ literacy issues etc
- Many are engaged in decent work but low skilled and/or medium skilled.
 - Agricultural and traditional sectors remain the main sources of employment.
 - Small-scale industries accounted for an estimated 15 per cent to 20 per cent of value added and 25 per cent to 30 per cent of total industrial employment in 2015.
 - Manufacturing industries and their related services sectors can absorb large numbers of workers. *Is this the case?*
- In emerging markets, between 45 per cent and 55 per cent of all small and medium enterprises are unserved or underserved by financial services.

Issues for LICs

- The perception that technological change may result in more and better jobs that provide higher paying and require more skills? (*the notion of upwards mobility – low skilled to medium skilled*)? *This seems linear – Are there alternative trends/Is there a possibility of reverse trend?*
 - Argue that this may depend on the types of jobs affected; literacy levels; limitations in terms of resources and policies to support this shift etc
- Perception that developing countries will be affected negatively because technology catch up becomes more difficult?
 - there is evidence that ICT related innovations have contributed positively to employment (jobs creation/efficiency etc) especially among the ambitious young generation.
 - In Kenya the increased use of mobile phones has promoted use of mobile banking (case of M-pesa). Although this has been a disruptive innovation esp in the banking sector – it has led to increased job opportunities through M-pesa kiosks offering banking services and increased business opportunities for SMEs. See article by Economist - *Why does Kenya lead the world in mobile money?*
<http://www.economist.com/blogs/economist-explains/2013/05/economist-explains-18>
 - There is unpublished evidence where negative impact is envisaged in the informal and especially the agricultural sector which employs a critical mass of low skilled labour.

Issues for LICs

High unemployment and underemployment - inspiration for the governments is to create jobs especially for the largest population-youth.

- The Science, Technology and Innovation Strategy for Africa (STISA 2024) – aims at using innovation (e.g. ICT) as a tool to create more jobs. It aims to take measures to curb brain drain and achieve the necessary critical mass of human capital needed
- There is the informal sector highly intertwined with the formal sector and both contribute to GDP significantly.
 - The AUC & many development scholars have recognised the important role played by the informal sector and the urge to build their capacity to innovate and enhance learning between the informal and formal thereby building strong national innovation systems; rethinking STI Indicators to measure informal innovation
- Other challenges relate to weak education systems/curricula that do not support problem based learning and mass production of graduates is not aligned to societal needs:
 - The East African Association of Universities has produced a damning report arguing that African students were unemployable upon graduation (AAU 2013).
 - The NASULGC report (2008) identifies a number of challenges confronting African universities. It singles out quality and relevance, weak research and innovation capacities, inadequate resources for infrastructure development, and human development and retention.

Issues for LICs

There is consensus that new jobs will be replaced by the emerging technologies (e.g. in Ethiopia), while new ones will emerge. Is the upward mobility a reality? What happens to the affected citizens? What might be the response/s?

- Governments may respond in various ways
 - Policy – targeted capacity building for the affected to engage in other income generating opportunities/or help them to upgrade/transition to medium/high skilled jobs.
 - May review education curricula to promote subjects that are innovation or entrepreneurial oriented (e.g. STEM)/or promote entrepreneurship e.g. through financial innovations etc
 - May act as guarantors of risks and provide innovation “insurance” esp for entrepreneurs /or provide social safety nets etc.
 - May tap into the positive aspects of synergies created by the automotive technologies. – e.g. engage in strategies to enhance increased productivity across sectors (agric, manufacturing etc). One way to do this is through promotion of ICT based tools and financial innovations. This is actually happening in many countries. Process innovation versus product innovation
- Response may be negative – some of the affected people may engage in activities that may threaten the security and economy of the states like terrorism; corruption; illegal businesses etc

Conclusion

Emerging technologies may affect positively or negatively employment in LICs. Evidence need to be generated and documented.

- The governments have a major role to play - mainly putting relevant safeguards & policy measures in place to deal with whichever situation that may arise.
- In addition – technological change may not be inevitable – I believe states and in particular human beings have the potential to adapt in different situations (pace and capacity may differ and hence the need for varying supports).
- Whatever the case, issues of unemployment/employment are complex and should be handled in a holistic manner.
 - E.g. There is need to reflect on macro, meso and micro environment under which emerging technologies emerge and consequently affect different aspects of development including labour capital/employment.

THANK YOU