Work/Jobs

Digitisation, automation and artificial intelligence

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The explosion in digital platforms is slowly changing the nature of what it means to be in the informal or formal sector. A process of the digital business progression, where each step is low cost and low risk, incrementally formalises the informal sector.

Instead of being casual labour, many active workers in the informal economy already live in the gig economy. Ng'weno and Porteous write:

> In the short term, technology will create new opportunities in the gig economy: shared-ride drivers, homestay hosts, e-commerce logistics, e-commerce sellers, and small-scale e-commerce producers. These will be supplemented by an army of 'digital translators.' … As the economy digitises, more people are needed to help customers and citizens transition into the digital economy. Most of these translators work on commission and set their hours.
>
> It's time we recognised the truth about the future of work in Africa: it isn't in the growth of full-time formal sector jobs. The future of work will be people working multiple gigs with 'somewhat formal' entities. This is already true, and it will be for the foreseeable future. When we consider the future of work in Africa, the question shouldn't be whether jobs will be formal or informal but how digital platforms and new technologies might make this type of work more productive and of better quality for workers themselves.

Of course, the gig economy does not have only positive effects. Generally, the impact of digitisation is to lower barriers to entry and increase competition. However, in Africa, this could further force down wages and increase the number of people engaged in informal and unregulated work. The gig economy is, therefore, likely to result in more precarious or insecure work, with lower job and income security, poorer working conditions and lower social protection coverage than when employees are in standard employment. But even that is not a given: business innovation and government intervention will surely fill this gap.

Then again, digital technologies could significantly help formalise African economies (explored in the Leapfrogging scenario). Still, as elsewhere, the future of work will be determined by the interplay of automation and innovation.[1] 'While automation leads to a decline in employment in old sectors, innovation makes new sectors or tasks possible,' argues the Mo Ibrahim Foundation.[2] Much of that will inevitably occur in the informal sector.

Estimates about the impact of the Fourth Industrial Revolution and, recently, Artificial Intelligence differ hugely and include alarmist forecasts about the destruction of up to 30% of all jobs globally by 2030. Not unexpectedly, the Economist argues that artificial intelligence, robotics and automation will not change what it refers to as the historical trend that saw technological revolutions create more jobs than they destroy. Wealthy regions, it argues, such as Europe and North America, are enjoying an unprecedented bonanza of jobs, with low-end workers being upskilled with a concomitant rise in wages. Research finding by the IMF differs and it soberly notes that:

> Artificial Intelligence (AI) can potentially reshape the global economy, especially in the realm of labour markets. Advanced economies will experience the benefits and pitfalls of AI sooner than emerging markets and developing economies, largely due to their employment structure focused on cognitive-intensive roles. There are some consistent patterns concerning AI exposure, with women and college-educated individuals more exposed but also better poised to reap AI benefits, and older workers potentially less able to adapt to the new technology. Labour income inequality may increase if the complementarity between AI and high-income workers is strong, while capital returns will increase wealth inequality.

Daren Acemoglu and Simon Johnson[3] argue that the belief that technological progress automatically translates into higher productivity and higher wages, eventually reducing inequality and welfare through the bandwagon effect, is mistaken. In fact, technology has often not resulted in more productivity, they argue. Where it does, it has not increased wages, although it has increased corporate profits and return of investment to shareholders. Instead, it has resulted in a decline in employment and stagnant or decreasing wages as employers reduce labour input costs. That trend, the authors argue, is particularly evident when considering the impact of automation and offshoring. It is in this domain that democracy has proved wanting. Instead of holding entrepreneurs and technology leaders to account, pushing production methods and innovation in a more worker-friendly direction, the association between capitalism, limited government and democracy has translated into increased inequality.

Rather, the authors argue, 'blind optimism' about technological progress is 'again enriching a small group of entrepreneurs and investors, whereas most people are disempowered and benefit little.'Huge resources are behind this global movement in favour of more open markets, deregulation and the free flow of capital, most prominently advanced by consultancies such as KPMG and powerful media such as the Economist.

What is needed is an appropriate balance between markets and government with the obvious caveat that circumstances differ from country to country. Clearly, market forces need to dominate in the productive sectors of an economy, but it is up to government to ensure the fairness and sustainability of market outcomes, including the broad distribution of income in the society.

Endnotes

1. Mo Ibrahim Foundation, Africa's Youth: Jobs or Migration?, London: Mo Ibrahim Foundation, 2019, 44.
2. Mo Ibrahim Foundation, Africa's Youth: Jobs or Migration?, London: Mo Ibrahim Foundation, 2019, 44.
3. Daren Acemoglu & Simon Johnson, *Power and Progress: Our Thousand-year Struggle over Technology and Prosperity*, Basic Books, London, 2023, p 7

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Dr Jakkie Cilliers is the ISS's founder and former executive director. He currently serves as chair of the ISS Board of Trustees, head of the African Futures and Innovation (AFI) programme at the Pretoria oce of the Institute, and is an extraodinary professor at the University of Pretoria. His 2017 best-seller Fate of the Nation addresses South Africa's futures from political, economic and social perspectives. His three most recent books, Africa First! Igniting a Growth Revolution (March 2020), The Future of Africa: Challenges and Opportunities (April 2021), and Africa Tomorrow: Pathways to Prosperity (June 2022) take a rigorous look at the continent as a whole.

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