



Digital Technologies, Labor Markets and Post-Crisis Recovery

By Karishma Banga

Summary

Due to the COVID-19 pandemic, output in Sub-Saharan Africa contracted an estimated 3.7% in 2020, with some segments of the economy hit harder than others—in particular micro, small and medium enterprises (MSMEs), the informal sector and labor-intensive manufacturing. Digital technologies offer an important pathway to mitigate economic losses from the pandemic, but a persistent digital divide means that the benefits of digitalization and digital solutions – such as teleworking and EdTech – are likely to be concentrated in the hands of a few. Digital skills are more important now than ever, requiring African countries to take a proactive approach towards supply- and demand-side digital transformation by effectively leveraging the African Continental Free Trade Area (AfCFTA) agreement for a post-COVID-19 inclusive recovery.

Thematic context

To tackle the spread of COVID-19, African countries have put in place several containment measures. The direct effect of these measures on workers is expected to continue to negatively affect GDP growth and employment. In Sub-Saharan Africa, output contracted by an estimated 3.7% in 2020 – a per capita income decline of 6.1%, with particularly strong economic impacts expected in Nigeria, South Africa and Angola.¹ Working hours across the continent declined by 7.7%, and an estimated 29 million African jobs may have been lost. Survey data from Senegal, Mali and Burkina Faso shows that one in four workers had lost their jobs by the end of April 2020, and one in every two workers reported a decline in earnings, with the informal sector hit harder.² Labor-intensive manufacturing, often dominated by MSMEs and women, has also been badly hit by the pandemic; in Kenya 30,000 formal manufacturing jobs have been lost.

Compared to agriculture and manufacturing, information and communications technology (ICT) services – as well as ICT-enabled sectors such as finance³, insurance and professional services (e.g., legal services and scientific research) – have proven more resilient to the pandemic's negative economic impacts. As these services mostly rely on digital tools and technologies, they have been less affected by physical distancing and lockdown policies. A post-COVID-19 recovery will depend on expanding labor markets in these sectors, which boast high growth potential given the share of ICT and ICT-enabled services as a total of service exports – less than 20% in many African countries.⁴

Innovation's contribution

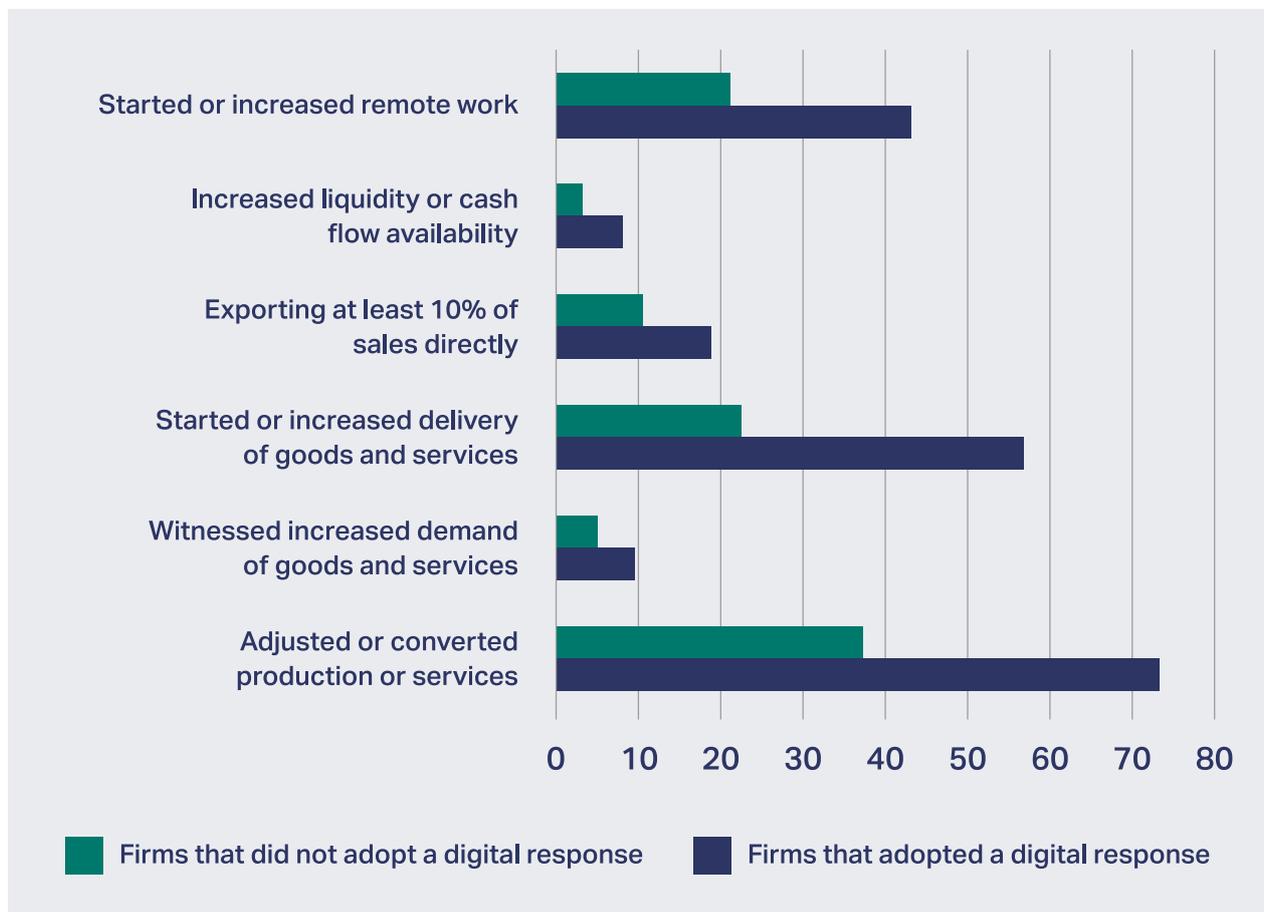
Digital technologies are emerging as an important pathway to mitigate economic losses from the pandemic and to innovate across industrial sectors. In the case of AgriTech, for example, there is significant potential for job creation with the rise of digital platforms increasing productivity, regional

trade, and opportunities for women and youth. In Uganda, evidence on the use of ag-platforms⁵ shows farmers on platforms have higher access to formal work and to productivity-enhancing services such as trainings. However, inclusivity remains an issue with platforms, particularly among women and youth. Women users have lower internet access compared with men, and also lower crop yields in some cases (e.g., maize production). Platform use still appears low in youth-led agribusinesses, despite young entrepreneurs reporting a spike in their use of ag-platforms to access online market information and COVID-19 support.⁶

Digital technological innovation and automation is also changing the landscape of labor-intensive manufacturing, particularly in the garments value-chain. On the one hand, evidence from Kenya⁷ and South Africa⁸ points to the productivity-enhancing potential of automation and subsequent job creation through the task chain. On the other hand, there are concerns about pandemic-induced digitalization in “lead firms” and subsequent reshoring of manufacturing tasks by developing countries.

Due to physical distancing policies and lockdowns during the pandemic, a number of African retailers have adopted e-commerce to offset losses from physical sales. Manufacturing firms taking a digital response are faring significantly better than those that did not (see Figure 1). While African firms are pushed to innovate by predominantly selling through their own e-commerce websites – due to high commission fees charged on third-party platforms – consumer trust remains low, limiting potential and impact.⁹

Figure 1: Growth outcomes in African manufacturing firms during the pandemic (% of firms)



Note: Data is from WBES (2020) on 1182 firms across four African countries – Niger, Togo, Zambia and Zimbabwe.

With businesses shifting online, and GovTech, EdTech and HealthTech emerging as crucial solutions to the pandemic, there is an urgent need to build capabilities in Africa's ICT-based sectors. They are going to be important drivers of future growth and key employment generators. Building their resilience is contingent on good, safe and reliable internet access. Kenya, for instance, can become an important hub for business process outsourcing, through government promotion schemes like Ajira. With more home-based working, remote working and virtual collaboration, a higher demand for digital labor is likely, particularly for IT contractors who can help companies set up and maintain remote working.

Recommendations

Ultimately, digital technologies will make some jobs redundant while also creating new jobs in new sectors. Digitalization will increase demand in the labor market for technical and non-routine skills, requiring African labor to be equipped with digital literacy and soft skills, such as collaboration and critical thinking.

- Governments must address supply-side challenges by equipping the African workforce with digital literacy skills through lifelong education opportunities and policies to support technical and vocational education and training. Demand-side measures include supporting the private sector to invest in technological skill development, such as through subsidies or tax incentives.
- African countries need to take a proactive approach to expanding digital innovation and connectivity for a transformative COVID-19 recovery. This includes investments in digital infrastructure and introducing regulatory initiatives or measures to leverage broadband capacity, speed and coverage, such as allocation of high-demand spectrum in South Africa and government-subsidized broadband services in Egypt.¹⁰
- Targeted investments need to be made to close the gender digital divide in various areas, including access to basic services like electricity and Wi-Fi connectivity, and e-commerce and digital skills development. AfCFTA can facilitate this through inclusion of specific cooperation processes and provisions within e-commerce protocols, such as digital training for women.
- AfCFTA and other initiatives should build regional and continental partnerships to develop large-scale infrastructure, harmonizing policy approaches across the region to stimulate innovation.

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About the Series

Policy experts and researchers from the [African Center for Economic Transformation \(ACET\)](#) and the [Development and Economic Growth Research Programme \(DEGRP\)](#), in partnership with [ODI](#), explore the critical role of innovation in Africa's recovery from COVID-19. Essays identify areas in which innovation can contribute to effective responses and offer high-level policy recommendations.

Endnotes

1. [Global Economic Prospects](#) (World Bank, 2021).
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3. See DEGRP research from Xiaolan Fu on digital finance innovation. Ann Njoki Kingiri and Xiaolan Fu, "[Understanding the diffusion and adoption of digital finance innovation in emerging economies: M-Pesa money mobile transfer service in Kenya](#)" (Innovation and Development, Volume 10 – Issue 1, 2020).
4. [State of the Digital Economy in the Commonwealth](#) (The Commonwealth-ODI, 2020).
5. Aarti Krishnan, et al "[AgriTech Disruptors; evidence from Uganda](#)" (ODI working paper series, 2020).
6. Karishma Banga et al., *Youth Enterprise Growth*. (ODI, forthcoming).
7. Karishma Banga and Dirk Willem te Velde, [How to grow manufacturing and boost jobs in a digital economy; policy priorities for Kenya](#) (ODI, 2018).
8. Christian Parschau and Jostein Hauge, "Is automation stealing manufacturing jobs? Evidence from South Africa's apparel industry" (Geoforum, Volume 115, 2020).
9. Karishma Banga, et al., [E-commerce in preferential trade agreements Implications for African firms and the AfCFTA](#) (ODI report, 2021).
10. [First Overview of Key Initiatives in Response to COVID-19](#) (ITU, 2020).

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Research jointly supported by the ESRC and FCDO

