



Technology as an Enabler for Addressing the COVID-19 Challenges in the East African Community

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The Context

The COVID-19 pandemic has cost hundreds of thousands of lives and damaged economies worldwide. COVID-19 control measures such as social distancing, curfews and lockdowns restricted non-essential physical human interactions, thus impaired production, exchange and consumption of goods and services, and ultimately damaged livelihoods and economies. The EAC Partner States, like other countries in the world, are faced with the challenge of sustaining normal life during the pandemic and setting on a recovery trajectory after the COVID-19 crisis.

The problem

Given the enormous pandemic-induced damage to its livelihoods and economy, the EAC faces the challenge of bringing normalcy, expeditious recovery as well as entrenching application of strategies and measures that, not only support return to normality and recovery, but also provide a platform for a resilient and sustainable long-term growth and development for its citizenry. This study investigated how technology is used in the EAC to address the challenges resulting from restricted face-to-face interactions during the pandemic to achieve near-normalcy, and how it can be promoted for an inclusive technology-driven future. For context, perspective and policy direction, the study also investigated the underlying technology inclusion factors in the EAC.

Background

The COVID-19 pandemic containment measures led to countrywide disruptions to public health services and in some cases outright closure of education, domestic business and commerce, international goods and services trade, inter alia. EAC Partner States are still battling the pandemic as well as striving to recover in various sectors impaired by the pandemic and grow from there. There are no sectoral estimates of the damage caused by the pandemic, but the damage is real. Adoption and application of technology is a function of several factors, including initial technology conditions, technology inclusion factors, policy in each country and regional harmonization of the same. For the EAC, the initial conditions are largely underdeveloped and some worsened by the pandemic; the pandemic has also fuelled more technology application by growing segments of ordinary people. Some of the initial conditions of interest observed: low EAC average of US\$783 annual disposable income per capita (lower than LDCs' US\$1,028), and large segments (37%-73%) of persons living on less than US\$1.90 a day; high costs of technology (smartphones cost US\$86 on average, other technology devices, internet services and electricity) vis-a-vis low per capita incomes, although mobile connection rates are rising particularly in urban areas, and among more males than females. Digital literacy, technology skills and usage are generally low, particularly among females. Financial inclusion is low (only 27% are banked) though mobile money account ownership (39% in 2019) and transfers are growing, fewer females than males own devices, e-commerce participation is generally low though growing. Telecommunication infrastructure capacity is underdeveloped and limited in rural areas. EAC is pursuing technology development initiatives including in infrastructure development, one area voice and data networks, rural connectivity and universal access, cross-border infrastructure connectivity, cyber security, regional inter-bank connections under the East-Africa-Payment-System project, e-commerce, R&D and ICT industry development, inter alia. Most of the initiatives are at varying national stages of development and implementation.

Key findings

The study was conducted offsite during November–December 2020, which was also the peak of the second wave of the COVID-19 pandemic in the EAC. It applied qualitative textual and quantitative analyses to secondary data and information collected online from the EAC, WHO, World Bank, published e-articles by some of the regional news-houses, amongst others. Technology has played key roles in addressing the challenges caused by the pandemic in several ways and the study focussed on: (a) Public health safety: top challenge was controlling the spread, and technology allowed EAC healthcare professionals and researchers to generate and analyse data and information (COVID-19 tests and forecasts) to inform task forces, policy makers, the media, community leaders, and common people on infection cases, transmission rates and hot spots/zones, effect contact tracing, disseminate prevention information and fact-check and dispel misinformation and myths (via WhatsApp, Facebook, Instagram, YouTube), inter alia. (b) No face-to-face interactions limited access to health services. In some limited cases, technology allowed for telehealth consultations, provision of telemedicine and counselling and medical drone deliveries (e.g., in Rwanda), though the majority EAC citizens did not participate. (c) Almost all tertiary (most with pre-pandemic online teacher-student interactions), a large number of secondary and some lower level education institutions resorted to offering online lessons (e.g., via Moodle, YouTube) to overcome the challenge of restricted face-to-face interactions in confined classroom spaces. However, large segments of primary school pupils, particularly in rural areas, have not participated in e-learning due to insufficient incomes to buy devices and data, limited telecommunication infrastructure, inter alia. Internet data prices were slashed from US\$6.81 in 2019 to US\$1.40 per gigabyte in 2020, but the lower prices remains unaffordable for poor households. (d) Technology facilitated the growth of mobile money transfers particularly for the unbanked, overcoming the pandemic-worsened challenge of limited access to financial services and restricted use of cash as market-opening hours and access were reduced and/or closed at times. (e) Growth of e-commerce (involving mostly consumer goods) also picked up pace to overcome limited market area access difficulty. However, underdeveloped and unharmonized telecommunication infrastructure and institutional frameworks, amongst other challenges, are holding back greater e-commerce. (f) EAC used technology (e.g., Regional Electronic Cargo and Driver Tracking System) to resolve pandemic-induced increased clogging of cross-border trade, passenger and truckers' clearance through issuance of mutually recognized e-certificates, doing away with uncoordinated and manual inspection and exchange of COVID-19-free certificate compliance requirements. Paperless procedures and processes in customs management systems also helped ease pandemic-worsened trade clearance congestion and achieve near-normalcy. (g) Other areas of pandemic-fuelled technology adoption and application are in conduct of virtual (Zoom, Microsoft Teams, Skype, among others) meetings, conferences, delivery of e-services for business and policy in the private sector and government at workplace level, nationally and regionally.

Implications for policy makers

Despite progress, there is room for technology to play a greater role addressing pandemic-induced/worsened challenges, and supporting recovery and development. To this end, in addition to the initiatives underway, the EAC should: improve access to technology for the majority, especially among women and rural communities; expedite regional harmonization of regulatory frameworks and supply of telecommunication infrastructure for increased technology adoption and application. Specifically, harmonize regional legal and regulatory frameworks on technology so as to spur research and development, market entry and competition, data privacy and data security to entrench consumer protection and confidence, and innovation and greater tech-driven development. Invest more in telecommunication infrastructure, including broadband connectivity, to cover all communities for increased access, greater internet speeds, and also stimulate innovation. Intensify technology adoption through pursuing inclusive growth and poverty reduction policies to support increased technology adoption, knowledge and skills. In particular, the plight of marginalized women should be highlighted and given top priority (e.g., tech-buy incentives and training). Introduce ICT syllabuses and provide affordable supporting apparatus at all levels of learning. Sectoral: Invest more in advanced healthcare systems to increase the use of health technology and informatics in pandemic responses, and general healthcare systems. Review and upgrade e-learning, e-commerce and other useful platforms for standardization, enhanced resource and data sharing for easier application of ‘big data’ and research, effective oversight by health authorities, inter alia. Implement the Digital Transformation Strategy for Africa (2020-2030) and recommendations in the 2020 EAC e-commerce study.



Mission

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