

What are the Building Blocks of the Digital Trade Environment in Africa?

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ABSTRACT

This trade brief outlines the history of, and some of the most important building blocks of the digital economy, as in the things that need to be in place for the digital economy and digital trade to thrive. It also relates these requirements and drivers to the development of the digital economy in Africa and offers some recommendations for policy makers and regulators in Africa.

Keywords: Digital trade, Digital economy

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By John Stuart

Introduction¹

The African region is the last region to become integrated into the global digital economy. Throughout Africa, platform usage, e-commerce, social network use and mobile money applications are experiencing rapid growth. As African countries respond to the inexorable ‘tractor beam’ of the digital economy, the critical role of governments and regulation is highlighted. Although policy analysts can at times over-emphasise the roles of governments and regulators, it is in fact the markets and market players that hold the keys to the digital economy. These market players are businesses and citizens; the providers and consumers of digital services. The best governments can do, is provide an optimal business environment through appropriate regulations, that is, regulations that protect market players while encouraging digital commerce. However, if governments and regulators get the regulations wrong, they can do more harm than good to digital economy development.

This trade brief outlines the history of, and some of the most important building blocks of the digital economy, as in the things that need to be in place for the digital economy and digital trade to thrive. It also relates these requirements and drivers to the development of the digital economy in Africa and offers some recommendations for policy makers and regulators in Africa.

A short history of the development of the digital economy

The development of the digital economy began about ten years into the life of the internet. Once a secure basis for financial transactions had been developed, it was possible to integrate payments into

¹ I am grateful to Trudi Hartzenberg for feedback and commentary.

now-interactive web pages. Internet payments were backended into the global financial system via the credit card payments infrastructure. The remaining challenge was to centrally warehouse and deliver products, but this part of the supply chain was far easier to develop and was in any case close to traditional commerce.

The development of e-commerce and subsequently, digitally-delivered services, was part of the evolution of the internet and took place organically, as a manifestation of the integration of the marketplace with the internet. It was inevitable that the internet would become part of global commerce just as it is inevitable that work and production in general become increasingly digitised. As is usually the case with 'disruptive' technology, participation in and adoption of the technology is eventually not optional, if businesses want to remain competitive. The productivity returns to digitisation are very high and hold the promise of better resource utilisation, process optimisation, greatly improved problem solving, greater value addition and the development of advanced skills.

The digital economy in Africa

For Africa, integration into the digital economy holds considerable benefits. At the current juncture, the African Continental Free Trade Area (AfCFTA) is becoming a reality at the same time as the world experiences a quantum technology shift in the commercialisation of artificial intelligence (AI). The average business and consumer will interact with AI as a digital service, or in the parlance of digital trade – a 'digitally-delivered service' (DDS). AI will be available as a directly-accessible service, via a computer or a device, or as a service embodied in an end product of some other kind, such as a self-driving vehicle.

Digital economy accessibility

This new digital world that we are entering is not an exclusive club, but nor is it fully inclusive. The latest data indicates that only 40% of individuals in Africa use the internet, compared with the world aggregate of 66% (ITU 2022). For LDCs, of which two thirds are found in Africa, the figure falls to 36%. The first building block of the digital economy is internet access, but access speed is also important. African countries occupy twenty-eight of the lowest forty ranked countries for access speed (Speedtest 2023), and this reflects the quality and extent of domestic communications infrastructure as well as the quality of terrestrial and sub-sea connectivity.

Cloud computing

Internet access speed is not just of relevance for the quality of digital media such as video and music, or more importance to businesses (especially MSMEs) is cloud computing. Cloud services are growing rapidly (Gartner 2019) and have become a critical building block of the digital economy because they permit enterprises to access advanced back office and other management software at a fraction of the price of locally-installed systems. Cloud services are DDSs and therefore currently not taxed in many developing countries, due to the lack of local currency pricing and local tax registration of a foreign affiliate.

Digital payments technologies and financial inclusion

Digital trade is also dependent on digital payments technologies, without which transactions would not be possible. The original payments gateways such as PayPal and Stripe have seen a proliferation of competition, especially at domestic level. However, these technologies require users to have bank accounts and credit or debit cards to which their digital wallets are connected. Digital payments therefore require financial inclusion as much as brick and mortar commerce requires it. According to the World Bank's Global Findex project (World Bank 2021), only 40% of adults in Sub-Saharan Africa (SSA) possessed a financial institution account in 2021; the proportion having a credit card would be smaller given the higher hurdle requirements for such an account. However, the same database reports that 46% of the SSA group made a digital payment in the same year, explained by the relatively higher prevalence of mobile money access in Africa.

Innovation, startups and technology hubs

Access to the internet, payment systems and cloud services are doorways to the digital economy and allow businesses to participate in it. However, for Africa to be a full participant in the digital economy, it should aim to produce digital businesses and to innovate in digital business technologies. Being a service provider rather than only a consumer of digital services requires that the building blocks of skills, innovation and entrepreneurship are in place as well. Certain African countries are working hard to build technology hubs, which involves attracting investment, building infrastructure and attracting and retaining skills. For example, in Senegal the Digital Technology Park Project is due for completion at the end of 2024 and aims to drive technology innovation, business process outsourcing (BPO) and create information economy jobs (AfDB 2023).

In Kenya, development of the Konza Technopolis south of Nairobi is underway. This 2000Ha development will cost USD14.5b and hopefully position Kenya as the leading technology innovator in East Africa (China Daily 2023). The hub will target BPO and software development but will also feature a university campus focused on research and technology development. The broader environment of the centre will feature housing developments for staff as well as power generation capacity, highlighting the holistic approach taken in the design of the technopolis.

The roles of governments and regulators

There are other initiatives like those in Senegal and Kenya, such as those in Zanzibar (African Business 2023) and Cape Town (Silicon Cape Initiative 2023), but the common emphasis is on creating an environment where technology entrepreneurs can access finance, support, facilities and infrastructure and where skilled individuals will want to work and build their lives. The roles of governments, SOEs and regulators are to facilitate the development of these environments. Regulation should take into account the dynamic requirements of technology businesses through the life cycle as well as aim to protect businesses and consumers. Some areas where regulation and the regulatory environment are key to the development of digital trade are:

- **Data regulation:** the internet grew rapidly without any rules on data localisation or restrictions on cross-border data flows. Of course, regulators need to implement data protection rules for privacy as well as online financial security, but the use of data regulations as a form of protectionism will undermine the digital economy. It is not only highly impractical to require data localisation for generic e-commerce and digital trade, it is harmful and trade-restricting. Digital trade data certainly has a value, but it does not belong to the users of digital platforms but rather to the creators of those platforms; which are also the means by which the data is collected and stored.
- **Trade agreements:** Modern trade agreements address digital trade of necessity, and indeed the AfCFTA broader agreement includes a protocol on digital trade. The USTR lists twelve modern trade agreements that contain digital trade chapters (USTR 2023). These agreements have as their goal, free and fair digital trade between signatories, facilitated by chapters covering, *inter alia*, the limitation of duties on cross-border digital trade, electronic authentication, protection of source code, prohibiting restrictions on foreign suppliers, prohibiting data localisation and restrictions on cross-border data flows (with specific waivers).

- **Intellectual property (IP) laws:** these are laws that guarantee property rights to the innovators of digital IP and provide protection from IP theft, piracy and counterfeiting. They are essential to ensuring investors into technology innovation are able to earn a return on their investments.
- **Competition law and policy:** laws designed to make markets more efficient and contestable, and to prevent the growth of monopolistic and oligopolistic market structures. This is particularly relevant to the affordability of internet access for marginalised communities. Competition laws and regulations should be finessed however, to recognise that it is not firm size per se but abuse of market power that should be the focus of regulators. In addition, competition policy is complementary to direct support of MSMEs, which should go hand in hand with conscious efforts to manage and remove ‘red tape’, bureaucratic impediments to business operation, regulatory intrusion and over-regulation of businesses².

Conclusion and some recommendations

Some of the most important building blocks of the digital trade environment are internet access, infrastructure, sufficiently fast data speeds, digital payment technologies and financial inclusion more broadly, cloud services, innovation, investment and skills. If one adds to this well designed regulations and laws in the areas of data regulation, trade agreements and IP, a solid and strong foundation will have been laid for digital trade: both domestically and cross-border. However, it has sometimes been the case in Africa that regulations and governmental oversight have been used more for economic rent purposes than for creating a healthy business environment. Taxes on transactions (sales taxes), which are important for developing economies, can nevertheless also manifest as a disincentive to business and trade, and digital tax regimes need to be carefully designed. Regulations, laws and taxes are components of the digital economy but need to be building blocks themselves, rather than things that compromise the core digital economy building blocks.

² I am grateful to Trudi Hartzenberg for these points.

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