



# Digitalization and Financial Data Governance in Africa: Challenges and Opportunities

Bitange Ndemo and  
Ben Mkalama

June 2022 / No.DG005

## The Context

Digitalization has transformed global financial markets and is quickly emerging as an avenue for future economic development. However, due to the dynamic nature of the digitalisation processes, ubiquitous challenges affecting their collection, processing, quality and security of collected data have continued to emerge, thereby creating opportunities for financial data governance. In this policy paper, we outline the state of financial-data governance and practices in Africa. We also identify questions and dilemmas facing scholars, practitioners and policymakers as we journey into a digitalized future.

# The Problem

The influence of digitalization on future economic development continues to fascinate scholars and practitioners. Digitalization often initially involves sizeable costs, and its benefits become apparent after the accompanying data is transferred to an environment that minimizes operational expenses. Digitalization has raised questions about data governance, as private entities have generated and deployed massive amounts of customer data without necessarily receiving consent or offering assurances of privacy (Davis, 2021). Digitalization raises key regulatory issues regarding agency, money laundering, financing of illicit activities, regulation of e-money, consumer protection, payment-system regulation and competition. The increasing influence of technology firms underscores the need for global monitoring and a regulatory framework capable of accommodating the competing priorities of different countries and stakeholders whilst supporting inter-jurisdictional coordination and minimizing the risk of regulatory fragmentation (Lopez, 2020).

## The Current State of Affairs

### Emerging concerns

New technologies and their attendant effects on digitalization are fuelling the emerging Fourth Industrial Revolution (4IR) by creating new data-driven business models and generate better opportunities for enterprises to expand rapidly. Technology firms that were previously not in the financial-services sector are carving out a niche for themselves (Frost et al., 2019) and have taken to digitalization to understand their customers, thereby using the data to design new products that improve their productivity and convenience.

Digitalization increases efficiency and raises productivity through greater automation of manual activities, integration of data across the firms and empowering team members with a collaborative digital culture that offers contextually adapted tools (Backbase, 2021; International Finance Corporation, 2017). As a result of digitalization, information asymmetries have been reduced by increasing transparency and access to information, leading different organizations to move towards it. World Bank (2021) highlighted that digitalization can improve linkages between citizens and governments more so because the public and private spheres have become increasingly intertwined and reliant on digital technology.

There nevertheless have been hindrances to fulfilment and success stemming from challenges such as literacy (including IT literacy), the socio-emotional perspective of marginalized individuals and the complexity of information and service requirements

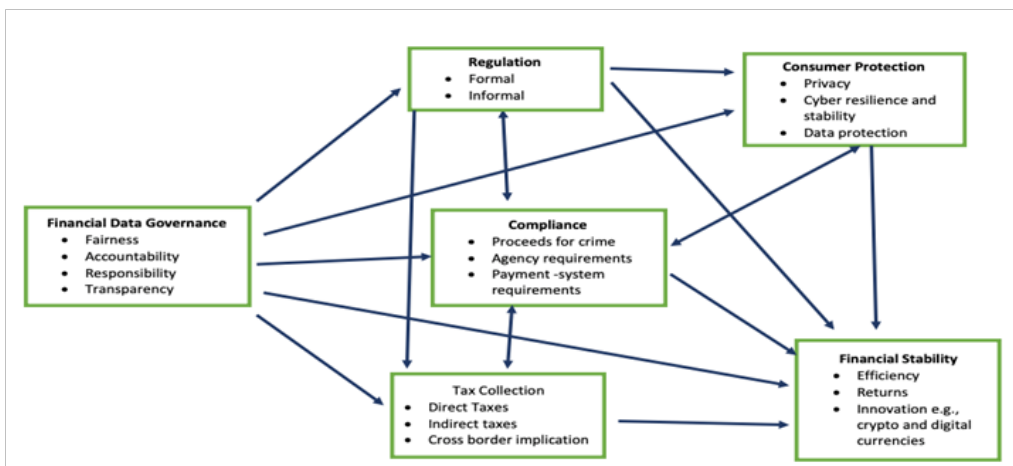
that users confront (Malladi et al., 2021; Mervyn et al., 2014; Shipalana, 2019). Increasingly additional challenges such as e-commerce platforms registering cross jurisdictional transactions with impacts like tax liability, burgeoning regional payment platforms that necessitate transnational and interdisciplinary regulatory discourses have emerged. That notwithstanding, digital currencies continue to reconstitute financial and monetary policies, with potentially significant economic impact.

Cybersecurity remains the most significant threat facing digitalization, with few available experts to mitigate attacks in Africa (International Development Research Centre, 2019). The African Cyber Immersion Centre (2020) noted a marked increase in cyber-attacks transcending critical sectors of the economy and found that these attacks were primarily coordinated across different countries giving an impetus to the emergent worldwide commitment to lessen cybersecurity threats (ITU, 2021). Cyber resilience, therefore, remains a crucial component in the relationship between digitalization and economic development.

Due to the potential conflict between data production and protection, Macmillan (2020) argued that successful data governance meant recognizing data's economic and social utility whilst delivering public benefits across the economy. Data distribution should be done securely and following observed consumer protection and privacy norms. Because massive amounts of data are now held by private corporations operating in jurisdictions other than those in which they are based, data governance especially in sub-Saharan Africa has emerged as a top priority (Devermont & Harris, 2021).

Ultimately, governance influences financial stability. We therefore adopt the conceptual framework in Figure 1 and argue that financial data governance requires a self and external regulation system.

Figure 1: Conceptual Framework



According to the framework, the need for regulation in FinTechs revolves around four principal pillars: compliance, consumer protection, tax collection and financial stability. However, there are interacting actions around these pillars, and scholarly work is still relatively nascent.

## Digitalization has a heterogeneous impact across Africa.

Africa is a heterogeneous collection of many countries with distinct societal objectives and institutional frameworks, and thus within the region, there are significant intra-country disparities on digitalization (International Finance Corporation, 2017). The harmonization of these frameworks and practices has substantial implications for trade potential and subsequent financial transactions in the region.

Ademuyiwa and Adeniran (2020) observed that most existing laws required substantial amendments to qualify them as appropriate to the dynamics of digitalization and highlighted emerging concerns regarding policies directed at competition and taxation in the digital space.

The African Union (AU) Convention on Cybersecurity and Personal Data Protection was adopted and approved at the 2014 Malabo Convention (AU, 2014). However, without ratification and subsequent operationalization by the different states, the good intentions of the Malabo Convention will remain just that. Furthermore, not all countries have uniformly progressed toward operationalizing their data-protection laws and governance mechanisms (Ademuyiwa & Adeniran, 2020; Deloitte, 2017). By 2021, only 25 of the 54 countries in Africa had fully enacted legislation on consumer protection (United Nations Congress on Trade and Development, 2021). Similar numbers exist regarding cybercrime (39), privacy and data protection (27) and electronic transactions (33).

## What does this portend for Africa?

Africa has unique demographic advantages: a young and increasingly literate population, a burgeoning middle class, inventive mobile network operators, and escalating internet penetration (Gyori, 2018). Accordingly, digitalizing Africa paves the way for more resilient economies in the future (International Finance Corporation, 2017). In addition, innovative digital financial services can increase economic opportunity in Africa and transform the landscape of financial inclusion for the unbanked or underserved (Gyori, 2018; Jafri, 2021). Such transformations have vast implications for macroeconomic stability and would likely improve tax collection, compliance and other administrative functions of the government (Yermack, 2018). Data governance provides invaluable support for these developments.

# Implications for Policy Makers

## Opportunities associated with financial data governance

We should view financial data governance from the perspective that it can create value and enables organizations to be competitive and agile, managing costs to more effectively address their customers' needs (Panian, 2010). Inadequate data quality and poor availability, yield poor productivity, with significant amounts of time, wasted on non-value-added activities that include data sourcing, aggregation, reconciliation, data cleansing and manual reporting (Petzold et al., 2020). Hence, effective data governance may require rethinking organizational designs to accommodate a balance between the setting of standards, strategic direction and execution.

## Challenges and risks associated with Big Data in the financial sector

As industries expand the geographical limits of their financial spheres, initiating new products and offerings based on copious financial data, they complicate the predicament of regulators (Wójcik, 2021). Firms that underinvest in governance make their organizations vulnerable to actual and often expensive breaches. Data-handling risks arise at three nodes: collection, processing and archiving. These risks often crystallize when data is inadequately handled. Data risks posed can be better managed by an improved regime of data management, adoption of advanced analytic techniques and reliance on cognitive technologies. The overriding concern is the extent to which the appropriate principles, policies, and procedures have been implemented to influence data governance and general cyber-hygiene.

## Social and ethical issues affecting digitalization of financial data

Zook and Grote (2020) imagined digitalization as a decentralized techno-utopian vision of society that would enshrine individual liberty and resist direct and indirect prying. Royakkers et al. (2018) identified privacy, autonomy, security, human dignity, justice and the balance of power as impacted by digitalization and, consequently, in need of protection; moreover, they opined that, whereas regulation had been developed around privacy and security, regulatory scrutiny was not as well-articulated in the other four areas. Our next concern therefore is the framework that can hold governments and private citizens accountable for using digital financial data in a responsible manner.

## Enhancing institutional frameworks

We must address institutional frameworks that affect data collection, transmission, processing, storage, access and interoperability. We must still assess the impact of digitalization through the coordination of decentralized data systems across institutions. What, for example, are the risks to financial data associated with data monopoly? The preferred approach has, thus far, been regulatory sandboxes that offer co-development of regulation by stakeholders as well as private self-regulation (Yermack, 2018). Such an appreciation calls for continuous reviews and enhancement of existing institutional frameworks.

## Conclusions

The literature on digitalization reveals several emerging themes that can guide future discourse on digitalization and financial governance in Africa. Policymakers should be aware of emerging trends and concerns brought about by digitalization. They must appreciate that this digitalization will elicit myriad impacts across the continent, ranging from financial to socio-ethical problems.



## Mission

To strengthen local capacity for conducting independent, rigorous inquiry into the problems facing the management of economies in sub-Saharan Africa.

The mission rests on two basic premises: that development is more likely to occur where there is sustained sound management of the economy, and that such management is more likely to happen where there is an active, well-informed group of locally based professional economists to conduct policy-relevant research.

[www.aercafrica.org](http://www.aercafrica.org)

## Learn More



[www.facebook.com/aercafrica](http://www.facebook.com/aercafrica)



[www.instagram.com/aercafrica\\_official/](http://www.instagram.com/aercafrica_official/)



[twitter.com/aercafrica](https://twitter.com/aercafrica)



[www.linkedin.com/school/aercafrica/](http://www.linkedin.com/school/aercafrica/)

## Contact Us

African Economic Research Consortium  
Consortium pour la Recherche Economique en Afrique  
Middle East Bank Towers,  
3rd Floor, Jakaya Kikwete Road  
Nairobi 00200, Kenya  
Tel: +254 (0) 20 273 4150  
[communications@ercafrica.org](mailto:communications@ercafrica.org)