

Digital Financial Services Regulations: Their Evolution and Impact on Financial Inclusion in East Africa

Executive Summary

Digital Financial Services such as mobile money provides immeasurable benefits for financial inclusion and intermediation in East Africa. In this paper, we used panel data analysis and annual data collected from 2007 to 2021 to examine the evolution of Digital Financial Services regulatory frameworks and their effects on conventional banking and Financial Inclusion in East African countries – Kenya, Tanzania, and Uganda. Results indicate that digital financial services regulations positively and significantly affect conventional banking services and mobile money (financial inclusion). Also, during the COVID19 pandemic period when the different governments instituted COVID19 policy response measures in the digital payments space to circumvent the use of cash and physical contact, positively affected digital financial services, thereby enhancing financial inclusion in the region. Also, an increase in lending rates and the consumer price index causes mobile money to decline. Therefore, digital financial services regulations are pivotal in advancing financial inclusion and intermediation through mobile money and conventional banking services in East Africa. Also, Central Banks should be concerned with mobile money in the economy because it forms part of the loanable funds by banks thus, stabilizing lending rates and prices in the economy is crucial for financial inclusion.

Authored by: **Ronald Ochen & Enock Will Nsubuga Bulime**

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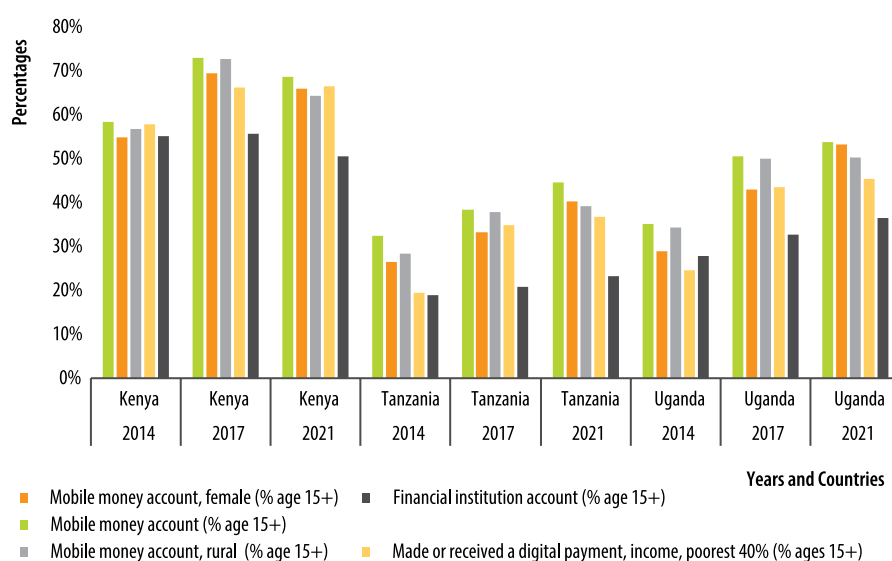
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1. Context and Importance

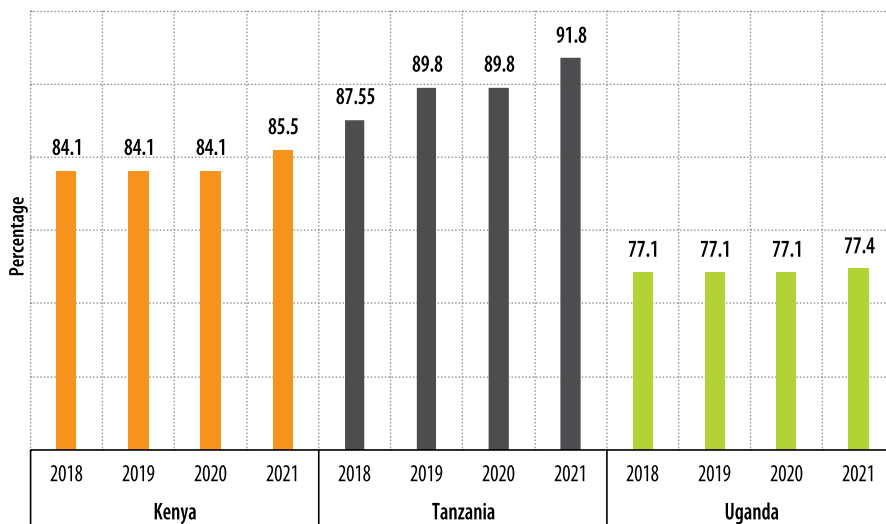
Digital Financial Services (DFS) like Mobile Money are addressing several development complexities in developing countries such as poverty, gender equality, and income inequality. Moreover, DFS also play an important role in enhancing financial inclusion by pooling the resources from the banked and unbanked populations from any geographical location (rural and urban). The Covid19 pandemic period further aggravated the importance of DFS (see **Figure 1**). However, regulation plays a central role in creating a conducive environment for the relevant stakeholders to achieve these dividends. Although, DFS regulations have evolved at different rates across Kenya, Uganda and Tanzania. This could partly explain the differences in the uptake and utilization of DFS and financial inclusion (See Box 1 for details). However, though Kenya has taken the lead in developing and implementing DFS regulations, a recent mobile money regulatory index (MMRI) report by Groupe Speciale Mobile Association suggests that Tanzania is doing better than Kenya and Uganda in terms of providing an enabling environment for DFS such as mobile money (**Figure 2**). The MMRI is a tool that measures the extent to which a country's regulations provide an enabling framework for sustainable mobile money services. It comprises 26 indicators clustered in six dimensions: Authorization, Consumer Protection, Transaction Limits, Know Your Customer (KYC), Agent Networks, and Investment and Infrastructure.

Figure 1: Selected financial inclusion indicators in East Africa (2014 – 2021)



Source: Authors' construction using Global Findex data (2014, 2017 and 2021)

Figure 2: The overall mobile money regulatory index for select EAC countries



Source: Author's construct based on data from Groupe Speciale Mobile Association (2022)

Against this background, using panel data analysis techniques, we examined the effect of examining the evolution of Digital Financial Services regulatory frameworks and their effects on conventional banking and Financial Inclusion in East African countries – Kenya, Tanzania, and Uganda. Specifically, we sought to answer the following research questions; What is the effect of DFS regulations on financial inclusion and conventional banking services? What is the effect of the COVID-19 pandemic on DFS and financial inclusion? Out of the seven EAC countries, our study focuses on Kenya, Tanzania, and Uganda because they are the main DFS hubs, pivotal in the evolution of digital financial services (mobile money) and digital services regulatory frameworks such as the National Payment Systems Acts in the region. Also, data for undertaking the analysis is readily available for these countries. Notably, the study's findings provide policy insights on the importance of DFS regulations for financial inclusion in the EAC.

Box 1: Summary of the evolution of digital financial services regulations in East Africa

Kenya:

- The Central Bank (CBK) supervised the National Payment Structure implemented in 2003.
- In 2011, the National Payment Systems (NPS) Act was enacted by the Parliament of Kenya.
- In 2014, NPS regulations are implemented by the Central Bank of Kenya.
- In 2015, Safaricom partnered with CBA to provide Bank to mobile Wallet services.
- In April 2018, implementing of the Mobile Money Interoperability services across MNOs launched by the Central Bank of Kenya.
- In March 2019, Call for Fintech start-ups by the Capital Markets Authority of Kenya.
- In April 2022, Implementing the Merchant Interoperability amongst MNOs like Airtel Networks Kenya Limited, Safaricom PLC, and Telekom Kenya by the CBK.

Tanzania:

- In 2012, a draft of Mobile Money regulations was created in the National Payment Systems Draft by the Bank of Tanzania (BOT).
- In September 2014, Mobile Money Interoperability was created

resulting into Bilateral agreements within MNOs Tigo, Airtel, Zantel and Vodacom birthed A2A interoperability.

- In 2015, the National Payment Systems Draft regulations led to the enactment of the Electronic Money Payments Systems Act, also known as the NPS Act, by the Parliament of Tanzania and implemented by the BOT.

Uganda:

- In 2013, the Bank of Uganda and Uganda Communications Commission launched Mobile Money guidelines including, Uganda Communications Commission (UCC) regulated the MNOs and the Bank of Uganda supervised the MNOs.
- In 2018, Mobile Interoperability was launched amongst Mobile Money Account 2 Account across Mobile Network Operators.
- In September 2020, after drafting of Mobile Money regulations with stakeholders, the Parliament of Uganda enacted the NPS Bill, which was accented to by the President.
- In 2021, the Bank of Uganda gazetted and implemented the NPS Act as law.
- In May 2021, the Bank of Uganda established the regulatory Sandbox by the Capital Markets Authority of Uganda and Bank of Uganda. Also, launched a call for testing of the Fintech start-ups and digital payment space.

Source: Authors compilation from a review of government documents and reports.



Conventional banks should leverage the existing legal, and regulatory frameworks to use mobile money digital financial services from Mobile Network Operators (MNOs) to boost credit creation in the economy

2. Methods and findings

We used annual data spanning from 2007 to 2021 from Kenya, Tanzania and Uganda, and panel data analysis techniques to examine the effects of digital financial services on conventional banking and regulatory frameworks and their influence on enhancing financial inclusion and innovations in East Africa. The study variables, mobile money transactions, private sector credit, and lending rates are collected from the Central Banks of Kenya, Tanzania and Uganda, lending rates and consumer price index were collected from the World Bank Development Indicators of the World Bank, and then the author developed the two dummies; the National Payment Systems Act (NPS Act) and COVID-19. The study scope from 2007 to 2021 is important for three reasons; (1) it captures the period when mobile money was introduced in the 3 East African countries with Kenya as the pioneer in 2007, and (2) the data covers the COVID-19 period from 2019 to 2021 when the different governments instituted COVID-19 response measures in the financial sector to avert the spread of the virus by facilitating the use and access to digital financial services, and lastly, it covers the different timelines when the national regulatory frameworks for digital financial services were implemented in the 3 countries. Our findings indicate that private sector credit from banks has a positive and significant effect on Mobile Money. Mainly, the National Payment Systems Act (NPS Act) regulations have a positive and significant effect on Mobile Money. This implies that Mobile Money further grew during the period when the National Payments Acts were enactment and implementation in the East African region. Further, this could imply that the enactment and implementation of the NPS Act boosted customer confidence to use Mobile Money since it addresses issues of consumer protection and provides redress mechanisms for fraud of MNO clients and customers. The Covid19 policy responses instituted by the Central Banks and governments during the pandemic period to avert the adverse effects of the coronavirus on the financial sector had a positive effect on Mobile Money. We also that Mobile Money usage grew during the COVID-19 pandemic period.

3. Conclusion and Policy Recommendations

Based on our study findings, we conclude that digital financial services and financial inclusion are supported by regulation and conventional banking services in East Africa. We hereby propose the following recommendations:

- (1) Conventional banks should leverage the existing legal, and regulatory frameworks to use mobile money digital financial services from Mobile Network Operators (MNOs) to boost credit creation in the economy because mobile money facilitates financial intermediation by pooling resources from the banked and unbanked households to the conventional banks that avail them into credit for customers.
- (2) East African countries should strengthen the digital financial services regulations to backstop further development and growth of mobile money platforms; this will also address the inherent risks and liabilities such as fraud, which boosts customer confidence in digital financial services.
- (3) Central banks should be concerned about mobile money since it forms part of the money the banks lend customers, hence broad money. Its influence on monetary aggregates is evident thus, the macroeconomic stability of lending rates and prices is also crucial for financial inclusion in the EAC.
- (4) Regulatory authorities should promote and ensure effective competition in the evolving mobile money market, especially with the emergence of new players during the pandemic. This will enable the consumers to access and utilize a range of high-quality products and services.

Kenya Bankers Association

13th Floor, International House, Mama Ngina Street
 P.O. Box 73100– 00200 NAIROBI
 Telephone: 254 20 2221704/2217757/2224014/5
 Cell: 0733 812770/0711 562910
 Fax: 254 20 2221792
 Email: research@kba.co.ke
 Website: www.kba.co.ke



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