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Digital Finance and Financial Inclusion in Africa

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I. Introduction

A well-functioning financial system is essential for fostering economic growth. However, the development of the financial sector has been insufficient in Africa. The average rate of adults' bank account ownership in sub-Saharan Africa was only 55% in 2021. With the exception of South Africa, which has a well-established traditional financial industry, and Kenya, a digital leader in Africa with a remarkable performance in mobile money penetration, there is still ample room for improving financial inclusion throughout the African continent.

Digital technology is gaining attention as a game changer to reshape the landscape of Africa's financial industry. Mobile money services, a form of digital finance that has transformed the traditional way of providing banking and financial services, have been widely developed since the introduction of the first mobile money service, M-Pesa, in Kenya in 2007. The innovation has emerged as a lifeline, enabling the previously unbanked to have access to affordable and secure financial services and consequently enhancing financial inclusion in line with Sustainable Development Goal 8 in Africa.

This article presents the findings of Han et al. (2023), which conducts comprehensive analysis of digital finance and its impact on financial inclusion in Africa.

II. Mobile Money and Financial Inclusion

1. Evolution of Mobile Money

In Africa, where traditional financial infrastructures are underdeveloped, mobile money has evolved and become a prevalent financial system. Mobile money in general provides financial services linked to a prepaid account, such as money transfer and payment for buying goods.

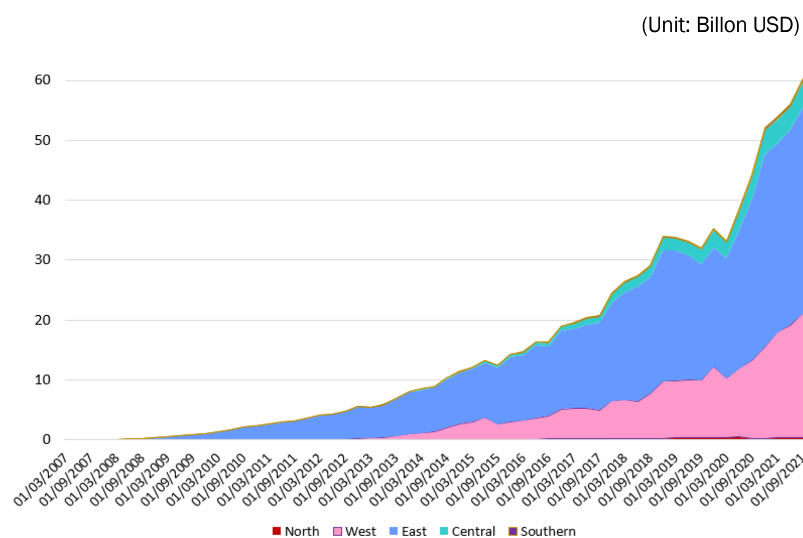
Mobile-based financial services have rapidly expanded, with 154 out of 315 global mobile money services available in sub-Saharan Africa as of 2022. The catalyst for the rapid expansion of mobile money services is its business model, in which services are provided through telecommunication systems and their vast network of service agents. The telecom operators easily expanded their mobile money services using their existing customer base. The adoption of mobile money varies across different regions in Africa. It is evident that East Africa was the pioneer in the adoption of mobile money, with a swift and widespread uptake among its populace. West Africa, despite a delayed full-scale rollout, is now catching up at a rapid pace. However, in North and Southern Africa, where traditional financial systems are relatively well-established, the take-up of mobile money remains comparatively low.

This widespread adoption of mobile money has significantly broadened financial accessibility and reduced the proportion of the financially excluded population. Mobile money services reduce transaction costs by 80% and interest rates by a third, making them more affordable alternatives to conventional financial services for the low-income and unbanked population. As a result, the average percentage of people having bank accounts in sub-Saharan Africa grew from 23% in 2011 to 55% in 2021.

The transformation of the financial industry was further accelerated by the COVID-19 pandemic with a surge in online payments and increased fintech activities. In Africa, lockdowns led to higher demand for contactless services, while African governments' policies to boost digital financial services further stimulated the use of mobile money services.

Figure 1. Transaction Value of Mobile Money in Africa

(Unit: Billon USD)



Source: GSMA Global Mobile Money Database

2. Socioeconomic Effects of Improved Financial Inclusion

Beck and De La Torre (2007) defines the problems associated with financial inclusion as threefold: geographical limitations manifesting as disparities between urban and rural areas, and socio-economic limitations reflected in gaps in income, social classes and race, and limitations of opportunity, which arise from barriers to market entry for new companies. Overall, factors hindering financial inclusion encompass transaction costs, information asymmetry between financial institutions and customers, and uncertainty in outcomes of financial services.

Digital finance has arisen as a solution to address these economic and non-economic constraints in the financial market. Given Africa's high mobile network penetration rate, mobile money became a prominent form of digital finance in Africa. This form of finance has successfully navigated the challenges posed by inadequate financial infrastructure, offering numerous benefits. Easy sign-up without subscription fees makes mobile money accessible to anyone with a mobile phone. Mobile money reduces transaction processing time and operating costs through technological advancements, thereby increasing productivity and efficiency. The extensive agent network and the ability to conduct transactions remotely eliminate the need for physical bank visits, reducing psychological barriers and enhancing financial liquidity. This setup also facilitates multiple small transactions.

Digital finance strengthens economic resilience for individuals and households by offering a broader spectrum of strategies for risk mitigation and risk sharing. Mobile money essentially serves as an informal insurance mechanism and helps consumption smoothing. The ability to make swift person-to-person remittances at a low cost fosters an environment that promotes risk sharing within the community or among family and friends when faced with economic difficulties.

Empirical evidence suggests that expanding financial access reduces poverty (Honohan, 2008; Donou-Adonsou and Sylwester, 2016; Abor, Amidu, and Issahaku, 2018). In Kenya, mobile money penetration has facilitated financial management for low-income groups, increased women's labor market participation, and reduced poverty rates (Suri and Jack, 2016). Furthermore, digital finance enhances individuals' ability to save and invest, increases labor market and economic activity participation, and thereby boosts income (Kikulwe, Fischer, and Qaim, 2014; Swamy, 2014). By providing wider access to secure financial services, mobile money strengthens the economic resilience of low-income groups who were previously excluded from the financial market and lacked formal risk management mechanisms (Yao, 2023).

3. Empirics: Firms in Kenya

The benefits of mobile money have been predominantly observed at the individual or household level, and there is a gap in efforts to

assess financial accessibility at the firm level. Mobile money has evolved to include person-to-business and business-to-business services, reflecting the growing demand for quick and cost-effective financial services for businesses. Consequently, the upcoming frontier in digital finance will likely be services specifically designed for firms.

The access to finance of small and medium-sized enterprises (hereafter "SMEs") is especially crucial in developing countries, where SMEs account for 45% of employment and generate 33% of total income, serving the engine of economic growth (OECD, 2017). In Africa, SMEs are even more prevalent, accounting for 80% of employment, with approximately 44 million SMEs operating in sub-Saharan Africa. These enterprises play a crucial role in fostering innovation and generating new ideas and technologies. However, a stark reality persists: the majority of SMEs fail within their first year of establishment. Among several factors that impede growth of SMEs, the most significant obstacle is the lack of access to finance.

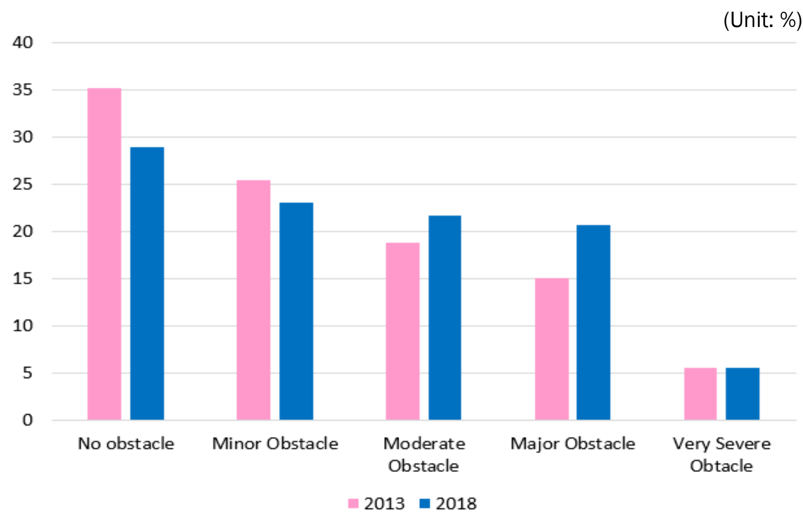
This issue is clearly illustrated in Figure 2, which shows how Kenyan firms perceive financial access as an obstacle in their activities. Approximately 45% of the surveyed companies acknowledge that financial access poses a certain degree of obstacle to their business activities. Notably, this proportion saw an overall increase in 2018 compared to 2013. This indicates a growing recognition of the challenges posed by financial access among Kenyan SMEs.

Limited access to financial services poses significant challenges for SMEs, obstructing their ability to operate seamlessly, increase sales, and boost exports. In sub-Saharan Africa, only about one-fifth of SMEs can gain access to loans through traditional financial institutions. This issue is particularly pronounced for small and newly established firms, which face considerable difficulties in obtaining external financing. These firms often operate informally and typically resort to non-traditional methods of fundraising. These methods include using personal savings or obtaining loans from family and friends (Beck and Cull, 2014; Beck and Demirguc-Kunt, 2006). This situation underscores the pressing need for enhanced financial access in the SMEs landscape. Enhanced financial access can empower these enterprises to realize their full potential and contribute more effectively to economic growth.

Han et al. (2023) conducts an empirical analysis using the World Bank's Enterprise Survey of Kenya for 2013 and 2018. The study examines the relationship between Kenyan firms' use of mobile money and their investment activities, updating and expanding upon the results of Islam, Muzi, and Meza (2018). The findings suggest a positive correlation between firms' use of mobile money and their financial accessibility, as well as their investment activities in both tangible assets (like fixed assets) and intangible assets (such as R&D expenditure). This indicates that mobile

money likely facilitates firms' financial decision-making processes, leading to increased investment activities aimed at boosting productivity and fostering innovation.

Figure 2. How Much of An Obstacle: Access to Finance



Source: World Bank Enterprise Survey Kenya 2013, 2018

III. Policy Implications

Korea has the potential to strengthen its cooperation with Africa in digital finance and the financial sector. Firstly, Korea can proactively engage in international initiatives that are designed to alleviate financial vulnerabilities and boost financial inclusion, thereby fostering inclusive and sustainable economic growth in Africa. Drawing on its own experiences of bolstering financial infrastructure during its economic development, Korea is well-positioned to offer advisory services and technical assistance. This support can aid in the development of Africa's financial sector, utilizing resources from Korea's official development assistance or in collaboration with international organizations that have expertise in the financial sector.

Secondly, the Korean government should provide support to Korean companies seeking to venture into African markets, through the implementation of suitable regulatory and diplomatic measures. The success of Korean companies in these emerging markets hinges on the availability of stable financing and the execution of risk mitigation strategies. Therefore, it is crucial for Korean financial institutions to establish a presence in the local markets alongside their local counterparts. Currently, Korean financial institutions display growing interests in the African market. This is evident from the recent cases where Korean banks have made indirect investments in the African market through partnership with regional financial institutions. Korean fintech companies, leveraging their technological and managerial expertise, can target countries that are still in

the process of improving their digital payment systems. To facilitate the activities of Korean investors and promote private sector engagement and development, the Korean government could consider establishing a Development Financial Institution (DFI). This institution would utilize resources from development cooperation initiatives. Furthermore, the government should formulate economic strategies specific to each region and engage in diplomatic efforts to cultivate a positive and cooperative attitude towards Korean companies in African countries.

Thirdly, building digital infrastructure and developing a skilled workforce are crucial for enhancing Africa's digital competitiveness. Given that the digital infrastructure sector in Africa is largely dominated by European and Chinese companies, it would be advantageous for Korean companies to form partnerships with these foreign or local entities. Addressing the shortage of ICT professionals, which currently hampers the growth of the digital industry in Africa, is another key area. Korea can broaden its contribution to capacity building by offering ICT education and training programs. These programs could be conducted in partnership with international organizations or specialized local institutions across a wider range of African countries. Furthermore, Korea can support Africa's efforts to improve digital literacy in rural areas and marginalized communities. This support could play a significant role in promoting inclusive digital growth and development in the regions.

Lastly, Africa's journey towards digital transformation should be designed in the context of its endeavors for regional integration. The digital transformation of Africa aligns with the African Union's Agenda 2063 and the African Continental Free Trade Area (AfCFTA). The African Union is striving to establish a unified digital market through AfCFTA, with a strong focus on promoting digital trade and fostering digital financial inclusion. This initiative offers opportunities for enhancing customs and trade administration procedures. Korea can provide a mutually beneficial partnership for Africa in its efforts to connect digital finance with a unified trade system. KIEP