

ABSTRACT

This thesis is made of separate empirical essays on digital finance, inclusive finance and banking sector development in Africa. It basically looks at the comprehensive understanding of how the application of technology in financial services delivery and inclusion of more people in the formal financial system affects the banking system in Africa. To achieve the broad objective, the study seeks to address three specific objectives. These are: (1) to examine the moderating effect of inclusive finance on the association between digital finance and banking sector development in Africa, (2) to ascertain the bi-causal relationship between banking stability and inclusive financial development in Africa, and (3) to examine the links amongst inclusive finance, banking sector development and economic development and the moderating role of digital finance in that tripartite relationship. Data for the thesis were obtained from the Global Financial Development Database, International Monetary Fund and World Development Indicators of the World Bank.

The first empirical chapter determines the independent effects of digital finance and inclusive effect on banking sector development as well as the moderation role of inclusive finance in the digital finance-banking sector development nexus. The study uses a dynamic panel Generalised Methods of Moments (GMM) Estimator on 39 African countries over the period 2004-2021. Three indices were constructed for this particular study being the first of its kind. The first finding is that the indices of digital finance and inclusive finance exhibited positive effects on banking sector development. When the four individual indicators or factors of digital finance and the index of inclusive finance were used, three out of the four individual indicators of digital finance show statistically significant effect on banking sector development. Another key finding of the study is the recording of a negative and statistically significant effect of the interaction between digital finance and inclusive finance on banking sector development. This finding suggests that that the supposed synergy of digital finance and inclusive finance on banking sector development in Africa is hindered by weak institutions.

The second empirical chapter ascertains the bi-causal links between inclusive financial development and banking sector stability in 41 African countries for the period, 2004-2022. It also investigates how economic wealth measured by Gross Domestic Product Per Capita modulates the connection between inclusive finance and banking sector stability in Africa. The study employs the dynamic panel technique (system GMM) and the Panel Corrected Standard Errors (PCSE) as a methodological robustness check in addition to Dumitrescu and Hurlin (2012) Granger Non-Causality Test. The GMM estimation results show a bi-causality link between inclusive finance and banking sector stability. However, the lags of inclusive finance negatively influence its future levels as a result of expansion risks or diminishing returns while banking stability displays persistence despite its modestly negative effect on inclusive finance. More importantly, Dumitrescu and Hurlin (2012) Granger Non-Causality Test which is a critical tool for detecting causal relationships produced excellent outcomes. The banking sector stability and the inclusive finance models results rejected the null hypothesis of no Granger causality between the two variables. This gives an indication that at least one country shows Granger causality from inclusive finance and banking sector stability and vice versa. . Since the null hypotheses in both cases are rejected, there is strong statistical evidence that: banking sector stability Grangercauses inclusive finance and inclusive finance Grangercauses banking sector stability. Therefore, there is bi-causal linkage (bidirectional granger causality) between banking sector stability and inclusive financial development in Africa.

On the other hand, the macroeconomic variables show mixed outcomes with inflation remarkably driving inclusive finance positively while it shows negative effect on the stability of the banking sector in Africa. The PCSE estimation results confirm the earlier findings of bicausal relationship between inclusive finance development and banking sector stability. The moderation of the economic wealth in the models reveals that economic wealth negatively and significantly moderates banking sector stability-inclusive finance nexus in the stability model while it yielded positive and statistically insignificant outcome in the inclusion model. This nonsignificant effect could be as a result of threshold effects where economic wealth may only influence financial inclusion and banking stability beyond a certain threshold. Moreover, the barriers to inclusion cannot be addressed solely by economic wealth and regulatory gaps and resources curse could be blamed for the non-significance effect on inclusion as well. The finding also implies that inclusion contributes to economic wealth with institutional quality and financial sector development playing critical roles and economic wealth rather does not always enhance inclusion or stability.

The third empirical chapter examines the links amongst inclusive finance (IF), banking sector development (BSD) and economic development (HDI). It also investigates the moderation role of digital finance (DF) in that tripartite relationship. Moreover, we examine how the different levels of digital finance development influence such relationship. To our best of knowledge, this study is the first of its kind to examine such correlation especially using HDI as a measure of economic development and the moderation role of digital finance. The study employs secondary data of 41 countries in Africa over the period, 2004-2022. Instead of using single indicators as proxies, this study constructed indices for inclusive finance, banking sector development and digital finance. First, the study shows a positive and significant direct effect of digital finance on economic development. This implies that digital finance serves as catalyst in promoting inclusion and banking development. Also, it shows a negative and direct effect of inclusive on economic development. This finding could mean that inclusive finance might exist but does not translate into broader economic development due to systematic issues such as corruption. This result is partly explained by the poor institutional quality, and inadequate necessary infrastructure that promotes inclusivity. Furthermore, the rapid population growth negatively impact economic development as this strains resources, infrastructure and employment opportunities. Besides, the vast difference in the level of inclusive financial development in the region is a contributory factor. Take for instance, countries like Mauritius, Kenya and South Africa experiencing higher levels of inclusion above 75 per cent while their counterparts such as South Sudan, Ethiopia and Togo hovers below 10 per cent. The study records evidence of banking sector development exhibiting negative and significant direct effect on economic development in the model with export to GDP ratio. This is an indication that the inefficiencies in the banking systems in Africa results into misallocation of resources which hinder economic growth and development. Regarding the interactions, the marginal effects give important implications especially to policy improvements. The moderation regression shows positive impact on economic development. This suggests that digital finance can spike economic development in the presence of inclusive finance and banking sector development in Africa.

Overall, this thesis argues that digital finance is relevant in driving inclusive finance as well as the development of the banking sector in Africa. This calls for African countries to pursue quality-driven expansion of inclusive finance and country tailored strategies that help align financial technology, inclusion, stability and structural dynamics to create the needed synergy in the region's banking system. Finally, there is the need for strong and effective institutions in Africa.