POLICY BRIEF

The Growth Effect of Disruptive Technology in Ethiopia: With a Case Study of Digitalization in the Financial Sector

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Ethiopia has witnessed excellent economic growth in the last decade and half. However, poverty and unemployment are still major problems. This is partly because this growth was not accompanied by structural transformation and failed to create sufficient employment, as a result (Alemayehu, 2022a). Fast and transformational growth is required to address these challenges. Disruptive technologies (DTs, hence forth) such as digitalization are crucial in this respect. DTs can bring about structural transformation of the economy, lead to global level of competitiveness and transform the economy and its various sectors and sub-sectors through technological leapfrogging. This is in particular important in the financial sector in Ethiopia which is at a very low level of development by the regional standard and, hence, the focus of this study.

Employing a data exploration and econometric modelling methods as well as case study approach this study attempted to examine the nature, impact and future direction of disruptive technology, in the form of digitalization, on Ethiopia economy in general and its financial sector in particular. The Ethiopian performance is also placed in the context of the performance in the African region in general and the neighbouring countries in particular. The major findings of the study are the following:

From the study, the level of ITC expansion as well as the related digital transformation in the financial sector is found to be one of the lowest in the region. Notwithstanding this, even this low level is found to be key driver of economic growth in Ethiopia. Thus, it is found a 10 percent increase in digitalization leads to 0.5 percent growth in GDP in Ethiopia. This is found to be about 1 percent in the service sector, and about 0.3 percent in the agricultural sector. It is, however, found to have no effect on the industrial sector.

Having this macro picture, I have also examined the effect of digitalization in-depth at micro level by taking the Ethiopian financial/banking sector as case study. From the analysis, I have identified a number of challenges in the sector, with implications for policy. The major challenges identified are the following.

First, apart from the necessity of networking banking branches and digital documentation of customer's information, most banks do not seem to take digitalization as the main strategy for transforming their current business model. Their current business model is based on branch expansion and targeting big customers and foreign exchange generators. All banks carry the bulk of their business physically in-branch too. In this sense the digitalization technology in the financial sector is not that disruptive yet.. Thus, digitalization is not taken as threat to their current business model that needs immediate strategical actions yet. Notwithstanding, all banks have an IT department and some of them have also digital business department. They are also investing a lot on digitalization, especially on digital in-house infrastructure and payment system.

Second, one of the major problems for advancement of digitalization in the banking sector is lack of methods or tools that measure the impact of investing on digitalization. In general, if it is difficult to measure an activity and its impact, it is difficult to pay serious attention to it by management. Lack of such measurement and indicators about the impact of digitalization and using that as an input for management (including board) decision is hindering management to strategize extended development of digitalization and use as well as realizing its potential. The tradition of expecting significant dividend each year by the board and shareholders in the Ethiopian banking sector accentuated this problem by limiting heavily investing in digitalization.

Third, the current business model of Ethiopian banks is to focus on big customers and corporate entities that are handled in-branch. This is the opposite of the trend in the banking sectors in the rest of Africa which are focusing on micro and small firms and the unbanked population using digitalization. Such digital transformation strategy (digital banking) as a business model is not getting the utmost attention it deserves by Ethiopian banks.

Fourth, adopting to the advances in global level of financial digitalization and venturing on digital transformation of banking as a strategy is not observed in a substantive manner in all the banks of the country. This is, partly, because the Ethiopian banks are comfortable with their current business model, customer base and current profitability. This is further strengthened by lack of a competitive threat from global players in the sector because the sector and the telecom sector has been restricted to citizens only to date. The telecom sector is now opened and sure to have effect on the current business model of banks through digitalization – this indicates that the Ethiopian banks need to be ready for such competition ahead of time so as to survive in the business.

Finally, one of the major challenges to digitalization and financial innovation in the financial sector is the existence of technically very weak, conservative and less informed regulatory body, the National Bank of Ethiopia (NBE). Because of these features, the NBE doesn't give a leeway to banks to innovate and deploy new financial products and new business model. It doesn't answer to the bank's requests on time either. Neither is it accountable when it fails to do the latter. As a result, fearing reprisal from the NBE as part of its defensive position, which is not uncommon, and discouraged by the bureaucratic hurdle for approval of new digital products and systems, banks are being forced to stick to already known and approved financial products instead of working on a new and better one. This needs a fundamental policy change from the regulator side (see below). The digitalization problem is accentuated further by the lack of national ID which should have been done at national level, spearhead, among others, by the NBE. Such problems of "coordination failure" has been also observed on various aspects that includes, acquisition of foreign licenses, cloud service, data management and data storage service, cyber security etc.

Given these major challenges and more specific ones documented in the study, some of the major policy implications of the study are the following:

First, the NBE needs to allow innovative financial products to flourish, requiring only notification from firms when they develop new products or systems, instead of prohibiting everything that is not in its list of permissible products as illegal, as is currently the practice de facto. It has also need to learn from neighbouring Kenya on such practice. For this to happen, the NBE staff needs to be informed about digital finance and its regulation ahead of time, staffed by hight calibre and well-paid experts that could design regulatory framework following a notification by banks. If possible, the NBE needs to do this ahead of such notification guided by clear strategic direction of digitalization. NBE has also need to be accountable and transparent when it fails in these functions. A possible short-term recommendation until NBE is staffed with such experts, plan B, is at least to regulate the "channels" (e.g., mobile banking) and leave detailed products within the channels for banks' creativity. Currently the NBE, however, would like to give permission for each conceivable detail products within a channel on product-by-product basis. As a result, it takes time, at times, a year and half to get approval after going through an agonizing process of defending the product by commercial banks in front of the NBE officials, with limited knowledge about the technology in question. By the time of approval, if this happens, the product could be obsolete in this fast-changing digital world. The NBE can learn a lot on how to handle such issues, on a continuous basis, from Kenya and the state bank of India, to just name few.

Second, there are a number of areas that enhance digitalization in the financial sector but need to be taken collectively by all banks or by the government (NBE for instance) for various reasons. These reasons include advantage of cost sharing, economies of scale, national sovereignty and security concerns. These are challenges that usually emerge from coordination failure. These challenges include collectively having a national ID, data storage and management system, data security, cloud service, and national level licensing of financial products from global vendors with monopoly power such as Oracle, IBM, Microsoft etc. It is imperative for the government (NBE included) to ensure that these activities are carried in a coordinated manner at national level as a matter of urgency.

Third, in all banks, except in a few, the disruptive technology nature of digitalization with implication for transforming their current business model in a fundamental way is not recognized by the management and board of banks. With the inevitability of foreign competition that is on the horizon and the trend of growing digital business model in neighbouring countries such as Kenya, the Ethiopian financial sector management needs to strategically plan to digitally transform their business model. One strategic direction on this is to optimize on partnering with potential competitors that most likely be better than Ethiopian banks, including FinTech firms by capitalizing on their local knowledge, in-house capacity and customer base.

Finally, disruptive technology such as digital transformation in the financial sector could be important (and could be used by the government) to de-ethnicize the banking sector through disrupting the ethnic (and also becoming religious, lately) business model most banks in Ethiopia increasingly employing revealed in the study as threat to the sector (especially to multi-ethnic focused banks). Digitalization in tandem with incoming exposure of the sector to foreign competition could also contribute to this by making it necessity for Ethiopian banks to go through merger, acquisition and joint-venture so as to be a strong competitive bank. This de-ethnicization is important (in fact the government needs to do it deliberately and quickly) because the ethnic and religion-based banks are dislodging banks with multi-ethnic customer base of their customers with detrimental effect on their business. The ethnic and religious business models are also segmenting the market in the process. In addition, this is an emerging national threat, especially when these banks began financing influential ethnic cadres/leaders, ethnic parties, ethnic businesses, ethnic and religious extremists selectively as their priority customer. When the latter happens, it is highly probable that such banks will be captured by ethnic (religious) extremists that enhance ethnic (and religious) identity at the expense of national identity – from which Ethiopia is already suffering in the last three decades that culminated in a devastating war since last year.

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