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FINANCIAL INCLUSION AND INCLUSIVE GROWTH: EVIDENCE FROM WEST AND EAST AFRICAN COUNTRIES

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Abstract

The near absence of inclusive development that has resulted in poverty, inequality and unemployment in the West and East African Regions has made it imperative to understand the sundry of financial inclusive facilities that has pave way and promote inclusive growth. The study empirically investigates the nexus between financial inclusion and inclusive growth from selected West and East African countries employing the non-stationary heterogeneous panel to account for non stationarity and heterogeneity. The study found out there was a short-run and long-run relationship between financial indicators and inclusive growth. Findings indicate that domestic savings and infrastructural development has a positive impact on inclusive growth but domestic credit by private sector and consumer prices on the other hand had a negative impact which could be attributed to high interest rate. Therefore, the study suggests that government policies such as favourable interest rate should be geared towards strengthening financial institutions and promotes the ease of accessibility of funds through less restrictive policies on financial institutions.

Keywords: Financial inclusion, inclusive growth, non-stationary heterogeneous panel

JEL Classification: D14, G28, O43

Introduction

In the new global economy, financial inclusion has become an increasingly and central issue for inclusive growth. It has evolved from the notion that financial institutions need to expand infrastructure to cater mostly for rural people into a holistic concept with practical and quantifiable gains for countries, with an impact on processes linked to socio-economic development and mostly resulting in economic growth (Oji, 2015).

A growing economy in terms of its Gross Domestic Product (GDP) and infrastructure is evidence that such society is getting its collective act together for its long-run objectives. Thus, as its economy grows, a society becomes more strongly organised, more compactly interwoven (Swamy, 2010). However, this growth is attained only when it is sustained high growth is better and sustained high growth with inclusiveness is best of all. Inclusive growth in the economy can only be achieved when all the weaker sections of the society, including agriculture and small scale industries, are nurtured and brought on par with other sections of the society in terms of economic development (Swamy, 2010).

Intuitively, the growth of an economy is also dependent on the growth of the rural market in the country. Therefore, the availability of quality financial services in rural areas is of utmost important for the growth of the economy as this will enable the large number of rural households

to fund the growth of their livelihoods. Furthermore, an inclusive growth strategy encompasses the key elements of an effective poverty reduction strategy and, more importantly, expands the development agenda. Therefore, developing inclusive financial systems that are financially and socially sustainable, as a poverty reduction strategy, should be given priority (Bhandari, 2009).

For Instance, in developed countries, the formal financial sector serves most of the population, whereas a large segment of the society, in developing countries, mainly the low-income group, have modest access to financial services, either formally or informally. Available data indicated that in the world about 62 percent of adults reported having an account–either at a financial institution such as bank or through a mobile money provider in 2014 (Global Findexdatabase as cited in (Demirguc-Kunt & Huizingz, 2000).

Notwithstanding, the ownership of account varies widely around the globe. In high-income Organisation of Economic Cooperation and Development (OECD) economies, bank account ownership is almost universal: 94 per cent of adults reported having bank accounts in 2014. In developing economies only 54 percent did. There are wide disparities among developing regions, where bank account penetration ranges from 14 per cent in the Middle East to 69 percent in East Asia and the Pacific (Demirguc-Kunt & Huizingz, 2000).

Evidently, Africa is an exception to this global picture. This is due to the reason that African countries have a high proportion of financially excluded people, which reflects a lack of access to and use of formal financial resources. The use of mobile money accounts are especially widespread in East Africa than account at a financial institution, where 20 per cent of adults reported having a mobile money account and 10 per cent having at a financial institution only. But these figures marks wide variation within the sub-region. Evidently, adults in Kenya have the highest number of mobile money account holders at put at 58 percent, followed by Somalia, Tanzania, and Uganda with about 35 percent. (Kendall *et al.*, 2010)

According to the World Bank (2010), the low penetration of banking services indicates the high proportion of financially excluded people in Africa. In 2011, 54 per cent of the South African population had accounts at formal financial institutions, while in Kenya, Nigeria, Egypt and the Democratic Republic of the Congo (DRC) they were 42 per cent, 30 per cent, 10 per cent and 4 per cent respectively.

According to FinAccess (2009) in Kenya income-related issues such as lack of income, irregular income and the inability to pay for formal financial services accounted for most of the income-related challenges that resulted in financial exclusion. Access barriers such as a lack of proper documentation, complex financial products and services, illiteracy and the location of financial institutions were the others reasons Kenyans were unable to use formal financial institutions. .

From the foregoing, the objective of this paper therefore is to examine the nexus between financial inclusion and inclusive growth in some selected West and East African countries. In addition, the study also determined the existence of a long-run relationship between financial inclusion and inclusive growth using the dynamic non-stationary heterogeneous panel which accounts for non-stationarity and endogeneity.

Review of Related Literature

Theoretical and Empirical Outcomes

Inclusive growth refers to growth that is sustainable and inclusive. However, the theoretical link can be traced to the works of King and Levine, (1993), Levine, (1997), and Levine, (2005), which established the theoretical nexus between economic growth and financial development. These chains of study have indicated that a well-developed financial institution through improve banking sector and the capital market help in boosting economic activities through provision of investible funds for economic development.

However, the works of Ianchovichina and Lundström, (2009); Samans, Blanke, and Corrigan, (2015); Samans, Blanke, Hanouz, and Corrigan, (2017) linked up inclusive financial among the key indicators in the build-up of a framework for inclusive growth. On this, they emphasised that financial inclusion through financial intermediation of the economy helps in enhancing financial system which transmits to intermediation of the economy through access to financial instruments that generates employment and boost economic activities in an economy.

The empirical studies on the nexus between financial inclusion and inclusive growth could be said to be evolving as there are relatively few empirical and analytical works on the subject matter. For instance; studies by Dixit and Ghosh, (2013) and Shah and Dubhashi, (2015) have examined the impact of financial inclusion on inclusive growth with the outcomes being identical suggesting that financial inclusion through improve financial systems and services plays a crucial role on inclusive growth as it enables households access to funds for development.

Oji, (2015) further indicated the low level of financial inclusion is anchored on demand and supply constraints as the former include inappropriate regulation, limited interoperability, low levels of financial literacy and latter include factors such as the limited capacity of many African financial institutions. The study further noted that these constraints have to be eliminated in order to increase the level of financial inclusion so that it benefits local economies.

Studies by Rodney, (2014) and Demirguc-Kunt, Klapper, and Dorothe, (2017) have indicated that financial services such as payments services, savings accounts, loans, and insurance have significant benefits for consumers with savings playing a greater role among the other indicators enhances the possibilities for inclusivity in economic growth.

Alemu, (2016) and Sharma, (2016) also examined the link between financial inclusion and inclusive growth. With Alemu (2016) indicating that low level of financial inclusion due to lack of physical access had led to poor performance of growth. The study suggests that banking regulations in the form of strict lending policy inhibit accessibility of funds from banks.

Sharma (2016) on the other hand, assess the link between financial inclusion indicators (such as banking penetration, availability of banking services and usage of banking services in terms of deposits) and economic development using the vector auto-regression (VAR) models and Granger causality. The outcome of the study was that a bi-directional causality exist between geographic outreach and economic development and a unidirectional causality between the number of deposits/loan accounts and gross domestic product.

Swamy (2010) also found that financial inclusion in the form of bank-based financial intermediation exerts a positive impact on inclusive growth. The study noted that financial instruments such as domestic savings, credit to GDP and income per capita have a positive impact on inclusive growth through the poverty reduction channel. A key inference from the aforesaid studies is that the role of financial inclusion cannot be overstated as it is crucial towards the attainment of inclusive growth and development.

Facts on Financial Inclusion in West and East Africa

Despite the various global reforms to improve inclusiveness and close the inequality gap, there still exist wide differences among developing regions of the world, where bank account penetration ranges from 14 per cent in the Middle East to 69 percent in East Asia and the Pacific (Demirguc-Kunt and Huizingz, 2000). Although, Africa in recent decades, have witnessed a dramatic improvement in access to financial services through more financial medium, especially credit which are now provided to individuals and enterprises (Triki & Faye, 2013).

In addition, technologies such as mobile money have also facilitated broader access to financial services. But the extent of financial inclusion and the degree to which disadvantaged groups such as the poor, women and youth are excluded from formal financial systems is still a source of concern. Triki and Faye (2013) noted that, the financial systems of many African countries still remain underdeveloped as compared to other developing economies even though most of these countries have undergone extensive financial sector reforms in the last two decades.

The usage of mobile money according to Demirgüc-Kant and Klapper(2012), have proven crucial with its achievement of providing greater financial access in Africa. But the underdevelopment features of the financial sector could be attributed to factors such as low and volatile income levels, inflationary environments, high illiteracy rates, inadequate infrastructure, governance challenges and the limited competition with the banking industry as well as high cost of banking (Demirgüc-Kant & Klapper, 2012). As indicated in Table 1 and in terms of account penetration it is evident that accounts in financial institutions is positively associated with real interest rates. For instance, in Nigeria, accounts in financial institution were given as 29.67 per cent and 44.17 per cent (of 15+ age group) in 2011 and 2014 respectively.

Table 1: Financial and inclusive growth indicators[1]

	Account at fin. Inst.		Lending rate		Household final expenditure	
Country	2011	2014	2011	2014	2011	2014
Nigeria	29.67	44.17	16.02	16.55	-5.63	-2.03
Kenya	42.34	55.21	15.05	16.51	3.48	1.85

Source: Data sourced from World Bank, World Development Indicator (2015)

On the other hand, lending rates were given at 3.84 per cent and 7.89 per cent in 2011 and 2014 respectively. The same could be observed for East African Kenya as the accounts in financial institution was given as 42.34 per cent and 55.21 per cent (of 15+ age group) in 2011 and 2014 respectively. Also, their lending rates were given at 3.84 per cent and 7.89 per cent in 2011 and 2014 respectively but their degree of responsiveness is quite different as Nigeria tends to have higher saving behaviour compared to Kenya considering the difference among the rates in the periods.

Although, Kenya have more adults who had accounts in financial institutions than Nigeria over the period. In line with this, Demirgüc-Kant & Klapper (2012), argued that, the usages and access to financial services by adults and enterprises illustrates that African countries lag behind other developing economies in both aspects, and that cost, proximity, removing physical, bureaucratic and financial barriers to expand financial inclusion is challenging. This also requires addressing the underlying structural causes such as low income levels and governance challenges within the region.

With respect to welfare using household final consumption-expenditure per capita as indicator of inclusive growth, it was seen that the annual growth rate of household final consumption- expenditure is negatively associated with accounts in financial institution in Kenya, while the opposite could be observed for Nigeria. For instance, in Nigeria, while account at financial institution increased from 29.67 per cent in 2011 to

[1] Due to the non-availability of data overtime for accounts in financial institutions, only 2011 and 2014 were available and hence, only the two years were used.

44.17 per cent in 2014, the growth rate of the household expenditure increased from -5.63 per cent in 2011 to -2.03 per cent in 2014. But similar account could not be held for Kenya as its account at financial institution increased from 42.34 per cent in 2011 to 55.21 per cent in 2014, the growth rate of the household expenditure reduced from 3.48 per cent in 2011 to 1.85 per cent in 2014.

Despite the improvement in the two countries in terms of accounts in financial institutions, there is a clear disparity among the two countries in terms of inclusiveness. The Nigerian case can be attributed to improvement in the ease of banking and accessibility of loan despite their high rate. While the Kenyan scenario may not be far from poor financial reforms in the system as well as their aversive sensitivity to high interest rate which may prevent them from accessing financial services due to the unattractive and inauspicious conditions.

Methodology

The Variables and Sources of Data

Studies by Swamy, (2010) and Demirguc-Kunt et al., (2017) have relied on indicators such as domestic savings, access to financial institutions, insurance, credit. To be consistent with the literature, this study also relies on these indicators to empirically evaluate the impact of financial inclusion on inclusive growth from a panel data drawn from 15 countries selected from West and East Africa. These countries were selected due to the availability of data and similarity in growth pattern since that all in Sub-Saharan Africa. The summary of the variables is given in Table 2.

Table 2: Summary of Variables used for the Study

Representation	Variables
Household	Household final consumption expenditure per capita
GrossDom_savings	Gross Domestic savings
Domestic_credit	Domestic credit provided by financial institutions
Consumer_prices	Inflation (Consumer Prices)
Electricity	Access to electricity

Sources: World Development Indicator(2015)

The variables for financial inclusion include gross domestic savings and domestic credit (see Swamy, 2010; Dixit & Ghosh, 2013; Shah & Dubhashi, 2015; Demirguc-Kunt, Asli; Klapper & Dorothe, 2017) macroeconomic factors such as inflation and infrastructural development, such as access to electricity (see also, Richard Samans, Jennifer Blanke, Gemma Corrigan, 2015; Samans et al., 2017). The countries used are given in the Appendix.

Model Specification and Description

Following Demirguc-Kunt et al., (2017) this study adopted and modified the dynamic panel model of Pesaran and Smith, (1995) and Pesaran, Shin, and Smith, (1999)specified as:

$$Incl_{it} = \alpha_i + \alpha_1 Incl_{i,t-1} + \alpha_2 Fin\_incl_{i,t} + \alpha_4 elect_{i,t} + \alpha_3\, consu_{i,t} + \varepsilon_{it} \qquad (1)$$
$$where\ i = 1,2, \ldots\ldots, N\ and\ t = 1,2, \ldots\ldots, T$$

Where:

$incl_{it}$ = inclusive growth measured by household final consumption-expenditure;

Fin_incl_{it} = financial inclusion indicators represented by Gross domestic savings and Domestic credit by private sector;

elect = access to electricity proxied by infrastructural development;, *consu* = consumer prices represented by macroeconomic factors.

Estimation Techniques

With the addition of the lagged dependent as an explanatory variable the estimated coefficients are at the risk of endogeneity bias. The study then adopted the Mean group and Pool mean group estimators of Pesaran, Shin, and Smith, (1999). This is because the panel is a long panel (that is, of long T and N) and these estimators can account for endogeneity bias as well as a non-stationary panel. The mean group involves estimating N time series regressions and averaging the coefficients because the intercepts, slope coefficients and error variance are allowed to differ across groups (Pesaran *et al.*, 1999). The Pool mean group on the other hand also allows the intercepts, slope coefficients and error variance are allowed to differ across groups but restricts the coefficients of the long-run to be equal across all panels (Pesaran *et al.*, 1999).

Based on this, the order of integration becomes important and as such various panel stationarity tests were carried out using the techniques of *Levin, Lin and Chu (2002)* which test the Unit root of common process, *Fisher-type (Choi, 2001)* which test for individual process, and *Hadri, 2000* which test for common process as well. However, the first two tests are with null hypothesis of Unit root (non-stationarity), while the *Hadri 2000* tests the null of no Unit root.

Having determined the stationarity of the panel, the long-run, short-run and error correction model equation adopted and modified from the work of Pesaran, Shin, and Smith, (1999) is given as:

$$incl_{it} = \sum_{b=1}^{p} \rho_{ib} incl_{i,t-b} + \sum_{c=0}^{q} \phi'_{ic} fin\_incl_{i,t-c} + \sum_{c=0}^{q} \delta_{ic} elect_{i,t-c} + \sum_{c=0}^{q} \psi_{ic} consu_{i,t-c} + \mu_i + \varepsilon_{it} \quad (2)$$

Where: ϕ'_{ic} is a $1 \times K$ vector of coefficients of the financial inclusion indicators; $\delta_{ic} and \psi_{ic}$ are the coefficients of electricity and consumer prices ρ_{ib} is the coefficient of lagged dependent variable. We then reparameterize equation 2to account for both the short- run and long- run form of the specification as follows;

$$\Delta incl_{it} = \alpha_{1i} incl_{i,t-1} + \alpha'_{2i} fin\_incl_{i,t-1} + \alpha_{3i} elect_{i,t-1} + \alpha_{4i} consu_{i,t-1}$$

$$+ \sum_{b=1}^{p-1} \rho_{ib} \Delta incl_{i,t-b} + \sum_{c=0}^{q-1} \phi'_{ic} \Delta fin\_incl_{i,t-c} + \sum_{c=0}^{q-1} \delta_{ic} \Delta elect_{i,t-c} + \sum_{c=0}^{q-1} \psi_{ic} \Delta consu_{i,t-c} + \mu_i + \varepsilon_{it} \quad (3)$$

For the error correction model, we have;

$$\Delta incl_{it} = \alpha_{1i} \upsilon_{i,t-1} + \sum_{b=1}^{p-1} \rho_{ib} \Delta incl_{i,t-1} + \sum_{c=0}^{q-1} \phi'_{ic} \Delta fin\_incl_{i,t-c} + \sum_{c=0}^{q-1} \delta_{ic} \Delta elect_{i,t-c} + \sum_{c=0}^{q-1} \psi_{ic} \Delta consu_{i,t-c} + \mu_i + \varepsilon_{it}$$

(4)

Where $\upsilon_{i,t-1} = incl_{i,t-1} - \lambda_{1i} fin\_incl_{i,t-1} - \lambda_{2i} elect_{i,t-1} - \lambda_{3i} consu_{i,t-1}$ and

$\lambda_{1i} = -\frac{\alpha_{2i}}{\alpha_{1i}}, \lambda_{2i} = -\frac{\alpha_{3i}}{\alpha_{1i}}, \lambda_{3i} = -\frac{\alpha_{4i}}{\alpha_{1i}}$, Which are the long- run coefficients obtained from the long- run equation.

Results and Discussion

The results of the Unit root shows that apart from Hadri test, others such as the Levin, Lin & Chu and Fisher indicated that the series are of different order of integration (mixture of I[1] and I[0]). This can be seen in the summarized version in Table 3.

Table 3: Unit root test

	Null hypothesis: unit root with common process	*Null hypothesis: unit root with individual unit root process*	*Null hypothesis: no unit root with common unit root process*
Variables	*Levin Lin and Chu*	*Hadri*	*Fisher (Choi)*
Household	*-9.04***b*	*-2.01***[b]*	*106.39***[b]*
Electricity	*-7.63***[b]*	*-3.36***[b]*	*-119.53***[b]*
Domestic credit	*-11.77***[b]*	*-0.72***[b]*	*46.14**[a]*
Gross Domestic saving	*-4.54***[a]*	*-2.80***[b]*	*88.63***[a]*
Consumer prices	*-7.95***[a]*	*-2.30***[b]*	*178.24***[a]*

*Note: a andb denote stationarity at level and at first difference respectively, while ***, **, * indicate statistical significance at 1%, 5% and 10% respectively.*

This studyestimated the equations by means of Mean Group (MG) and Pool Mean Group (PMG) estimators and thereafter the estimators were subjected to Hausman test. The test has a null hypothesis of PMG and an alternative hypothesis of MG as the preferred estimator. The PMG estimator isan efficient estimator as the MG is a consistent estimator. The Hausman test results significantly make certain the PMG estimator as the preferred estimator.

Table 4 indicated the results of using MG and PMG in estimating the relationship between financial inclusion and inclusive growth. The result shows that there exist a long-run cointegrating relationshipbetween financial inclusion and inclusive growth with an error correction term (ECT) of -0.098. The ECT indicates that the speed of adjustment in the case of a sudden shock is about 9.8 per cent.The slow rate must have been as a result of the weak financial institutions in the region which transmits to low financial inclusion. Furthermore, the result shows that gross domestic saving has a positive and significant impact on household final consumption per capita.

Table 4: Panel Result of Inclusive Growth and Financial Inclusion in West and East Africa

Variables	(1) Mg	(2) mg	(3) pmg	(4) pmg
Ect		*-0.364***		*-0.0983***
		(0.0728)		*(0.0386)*
D.(Electricity)		*0.278*		*-23.71*
		(3.517)		*(24.73)*
D.(Domestic credit)		*-0.190*		*-1.410***
		(0.831)		*(0.661)*
D.(GrossDomsaving)		*-2.534***		*-5.109****
		(1.018)		*(1.685)*

D.(consumer prices)		*0.112*		*0.456*
		(0.222)		*(0.565)*
Electricity	*-67.14*		*3.125***	
	(87.66)		*(1.513)*	
Domestic credit	*-0.385*		*-3.499***	
	(8.113)		*(1.494)*	
GrossDomsaving	*5.866*		*16.05****	
	(10.27)		*(4.711)*	
Consumer prices	*14.98*		*-6.522****	
	(13.42)		*(2.404)*	
Constant		*867.3*		*71.01****
		(756.7)		*(25.82)*
Observations	*345*	*345*	*345*	*345*

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1*

The coefficient of the gross domestic savings indicates that in the long run, the household final consumption is expected to increase by about 0.16 per cent with an increase in gross domestic savings. This means that households must have adjusted their consumption pattern in order for them to save in the short run. Since there is positive association in the long run, it implies that the accumulated saving overtime would enable the households to meet their financial obligations. This is in line with the findings of (Demirguc-Kunt, Asli; Klapper & Dorothe, 2017; Swamy, 2010) By implication, with the accumulation of savings in the region, there will be enough funds for household consumption as this then ensures inclusivity in the region. The finding of the other financial indicator of domestic credit by private sector is not fulfilling as it shows a negative impact on household final consumption. The coefficient indicates that an increase in variable reduces household final consumption by about 0.035 per cent. This is contrary to the findings of Swamy, (2010) However, this result may be attributed to the high rate of interest rate charged on credit by these private institutions. The high rates discourage households from borrowing funds from these institutions as they are vulnerable to debt traps.

The macroeconomic factor of consumer prices which serves as a control was negatively related with household final consumption. The coefficient indicates that an increase in consumer prices reduces households' consumption by 0.063per cent. Evidently, with high prices of commodities, it is expected that the households would adjust their consumption pattern downwards that is reducing it especially where they have constrained access to financial instruments. This lends support to the suggestion of Samans et al., (2017). This means that majority of the households in these regions are poor and are responsive to changes in prices of goods and services.

As further suggested by Samans et al., 2015, (2017), infrastructural development has a positive impact on the growth inclusivity of an economy. This is in line with our findings as the result showed a positive and significant relationship with household final consumption. The coefficient implies that an increase in the households' access to electricity increases the households' consumption by about 0.031 per cent. This is because with access to basic infrastructure, the anguish of the household would be reduce for instance, with access to regular electricity, the households would be saved the extra cost of using and sustaining alternative sources of energy such as generator set among others. This is because acquiring this alternative sources of energy further strains their current financial condition. This further suggests that infrastructural development is imperative in the developmental process of the region. A motivating outcome of these findings is that the financial inclusion variable of domestic savings has a larger impact among the other outcomes. This shows the importance of financial inclusion in the inclusive developmental process.

Conclusion and Recommendations

The current study empirically investigated the nexus between financial inclusion and inclusive growth from selected West and East African countries. The result indicated a long run relationship between the variables under study. However, domestic savings as well as infrastructural development (access to electricity) has a positive impact on household final consumption per capita. This implies that household consumption increases with accumulation of savings especially when backed up by developed infrastructural facilities which could jointly enhances inclusivity in growth. Contrary to literature, domestic credit by private sector has an inverse relationship with household final consumption as this could be attributed to the high interest rate which accompanies borrowing in this region. Also, our result makes a case for macroeconomic stability as a panacea for sustained inclusive growth with the findings on the consumer prices which exhibit negative relationship with household final consumption. An important implication for policy of this study is that efforts geared towards addressing inclusive growth in these regions should consider the critical role of financial instruments as indicated in the paper. For instance, it was observed that mobile money accounts has more positive outlook than accounts at financial institution. On the other hand, with the positive implication of domestic savings government can come up with policy where multiple rates would be practice. This means that there be high rates on one end to encourage savings of households and low and moderated rates at the other to encourage borrowing and access to financial services at formal financial institutions.

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Appendix 1: Countries used

S/n	Codes	Countries
1.	BEN	Benin
2.	BFA	Burkina Faso
3.	GMB	The Gambia
4.	MLI	Mali
5.	NGA	Nigeria
6.	SEN	Senegal
7.	SLE	Sierra Leone
8.	TGO	Togo
9.	KEN	Kenya
10.	MDG	Madagascar
11.	MOZ	Mozambique
12.	MUS	Mauritius
13.	RWA	Rwanda
14.	TZA	Tanzania
15.	UGA	Uganda