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Financial Development and Its Effect on Inclusive Growth in Kenya 2000 – 2022

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Abstract

Purpose: In the past decade, Kenya's economy registered an average real GDP growth rate of 4.63 percent. Despite this growth, many people have been locked out of social and economic opportunities, with 19.1 percent of the Kenyan population living in poverty. This has intensified the need for inclusive growth, a growth model that promotes shared prosperity. Several studies have shown that financial systems that function well play a great role in the economy through the provision of key financial services that drive growth. However, there is a lack of substantial inquiry into financial development and inclusive growth in Kenya. This study sought to examine this relationship for the period 2000-2022.

Methodology: The study employed a causal research design and used time series data that was collected from various databases. The level of inclusiveness in Kenya was analyzed using an inclusiveness matrix. An inclusive growth index was constructed, which was then used to empirically test the effect of financial development on inclusive growth. The data was presented in tables and figures.

Findings: The inclusiveness matrix shows that despite positive economic growth rates, there is a low rate of equity growth, which shows that Kenya has a low level of inclusivity. The empirical results show that bank deposits and private-sector credit have a positive and statistically significant effect on inclusive growth. A 1% increase in bank deposits leads to a 0.074% increase in inclusive growth. When private-sector credit increases by 1%, inclusive growth expands by 0.070%. Bank return on assets has a positive but insignificant effect on inclusive growth. The study confirms that financial depth and access to financial services are the most conducive to inclusive growth in Kenya. Other determinants of inclusive growth include initial income, human capital development and macroeconomic stability. The overall findings suggest that financial development can be used to create economic opportunities for poor people in Kenya, thus reducing income disparities.

Unique Contribution to Theory, Practice and Policy: The study has contributed to the ongoing conversation on inclusive growth, specifically on its measurement. The empirical results on the finance-inclusiveness nexus provide evidence-based policy interventions that can help in reducing income disparities and enhancing shared prosperity. The findings imply that policymakers and practitioners need to focus their attention on promoting financial access and financial depth in marginalized regions to create a significant impact on inclusive growth in Kenya.

Keywords: *Inclusive, Financial, Inequality, Growth, Income*

JEL Classifications: D63, E51, O40, O55

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INTRODUCTION

Inclusive growth can be referred to as growth that provides equal opportunities to all people (Ali & Son, 2007). Inclusive growth is particularly important to Kenya because it will help in accelerating poverty reduction (World Bank, 2023). Data from the Economic Survey of various years shows that Kenya registered an average real GDP growth rate of 4.63 percent in the past decade. Although economic growth in the country has helped to improve the standards of living, the poor and people at the bottom of the economic pyramid have been locked out of social and economic benefits. Recent statistics indicate that approximately 19.1 percent of the Kenyan population is living in poverty (Kenya National Bureau of Statistics, 2021). There is also a huge disparity in income distribution as indicated in Table 1. Only a small proportion of the population (top 10%) owns almost half of the national income (48.72%). However, the majority of Kenyan citizens (bottom 50%) own only 13.01% of the national income. It is also worrying that the top 1% own a higher income share than the bottom 50% of the population. These problems of inequality and lack of inclusivity have intensified the need for inclusive growth, a growth model that promotes shared prosperity.

Table 1: Income Distribution in Kenya

| Percentile | Income Share (%) |
|------------|------------------|
| Top 1% | 15.19 |
| Top 10% | 48.72 |
| Bottom 50% | 13.01 |

Source: World Income Inequality Database, 2022

Financial development refers to the improvements made in critical financial functions of a financial system (Čihák et al., 2012). World Economic Forum (2011) defines financial development as the institutions, policies and factors that enhance the effectiveness of intermediation and financial markets. Financial systems that function well play a great role in the economy through the provision of key financial services that drive growth. KIPPRA (2020) argues that access to key financial services such as loans and savings enhances participation in economic activities, thus enhancing inclusive growth. Financial development helps in unlocking access to credit among poor people, which enables them to engage in investment activities (Jalilian & Kirkpatrick, 2002). The theoretical literature suggests that financial development can lead to inclusive development through various mechanisms such as improved payment for services, mobilization of savings, reducing information asymmetry, enhanced risk management and innovation (Levine, 2005; Mlachila et al., 2016).

The Kenyan financial system has experienced tremendous changes in the recent past. The financial services offered by financial institutions have increased in the recent past (Central Bank of Kenya, 2022a). Financial technology has led to increased financial transactions in the 21st century. One of the transformative innovations is the M-Pesa service, which is used by almost all economic units in the country (Mulili, 2022). Mobile banking has also increased and improved, which has enhanced access to financial services. Despite these milestones in the financial sector, there are still many people left out of the financial system (KIPPRA, 2020). Several people do not have accounts in any financial institution, which may limit the effectiveness of the financial and economic policies, especially the monetary policy. In addition, the financial sector is still facing several risks that could affect financial stability

(Central Bank of Kenya, 2022c). There is a need to research on whether financial sector development plays a significant role in enhancing inclusive growth in the country.

The unique characteristics of Kenya's economy and financial sector strengthen the need to conduct a study on the finance-inclusiveness relationship. Kenya is the largest economy in East Africa in terms of economic output, which means that policies that enhance inclusive growth in the region will contribute towards regional development. Although East African countries have a common feature of bank-led sectors, Kenya's financial system is relatively more developed than that of other economies (Osoro et al., 2020). This is evidenced by statistics from various financial indicators. For instance, data from the World Bank Indicators show that domestic credit (measured by private sector credit as a percentage of GDP) for Kenya, Uganda and Tanzania was 31.12%, 14.79% and 12.98% respectively in the year 2022. The number of banks is also the highest in Kenya. In terms of bank deposits (% GDP), Kenya had 35.92% in 2021, which was also the highest in the region. The trends in the main financial indicators indicated in section 3 offer more insights into Kenya's financial sector. The country is also unique in that it experienced interest controls that were introduced in 2016 (Safavian & Zia, 2018). Although the interest cap was removed, it meant that several players in the financial sector had to adjust to the changes in this important monetary policy tool. A report done by Central Bank (2018) showed that interest capping led to reduced financial intermediation and affected the effectiveness of monetary policy.

Statement of the Problem

The development of the financial sector has been a key priority of the Kenyan government to make growth more inclusive. In light of the challenges faced by the financial sector, the government engaged in several projects to create socio-economic opportunities for all people. Vision 2030, a medium-term goal that seeks to transform Kenya into a highly industrialized middle-income country, identifies the financial sector as a key area of focus to enhance inclusivity (Ndung'u et al., 2011). Other interventions include the deployment of fiscal and monetary tools to enhance macroeconomic stability and the promotion of access to credit through the Hustler Fund. Despite these interventions, the financial sector is still facing several challenges such as financial constraints, risks and inadequate banking population (Central Bank of Kenya, 2022c; Van Hove & Dubus, 2019). Although Kenya has experienced growth in output in the recent past, there is still evidence of a lack of inclusivity, especially among vulnerable groups (Tyson et al., 2020). This leads to the question of whether the development of the financial sector has a significant influence on inclusive growth in Kenya. This is a question that can be answered through an empirical examination of the relationship.

Several empirical studies have been done to test the effect of financial development on inclusive growth (Cournède et al., 2015; Rumbogo et al., 2021; Xun et al., 2020). However, most of these studies have been done in other regions outside the East African region. Although evidence from Africa mostly shows a positive link between financial development and inclusive growth, the majority of the studies are panel in nature covering several countries in the region (Fowowe & Folarin, 2019; Gyamfi et al., 2022; Oyinlola & Adedeji, 2019). Other studies in Africa are single-country studies conducted mostly in West African countries (Ayinde & Yinusa, 2016; Olanrewaju et al., 2019; Sawadogo & Fall, 2021). This clearly shows that there is a lack of substantial inquiry into this relationship in East Africa. In the Kenyan context, most of the studies are on infrastructure and economic growth (Bakang, 2015; Odhiambo, 2009; Onuonga, 2014a), with inadequate empirical focus on income inequality and

inclusive growth. Some Kenyan studies show mixed evidence on finance and economic growth. For instance, Musembi and Chun (2020) found mixed evidence across two indicators of financial development while Odhiambo (2008) found that there was a unidirectional causal link from economic growth to financial development. Although some studies focus on financial development and income inequality in other regions, there is mixed evidence that shows the need for further research. This study seeks to fill these gaps by examining the relationship between financial development and inclusive growth in Kenya.

LITERATURE REVIEW

Theoretical Review

Several researchers have attempted to define inclusive growth. Schoneveld (2020) defines inclusive growth as one that is concerned with improving income, well-being and equality. According to Elena & Lundstrom (2009), this type of growth is required to enable poor people to contribute to sustainable growth. The authors pointed out that technological innovations and increased productivity can lead to productive employment and sustained growth. Inclusive growth is concerned with two important aspects: the pace as well as the pattern of economic growth (Zhang & Wan, 2017). Anand et al. (2013) and McKinley (2010) show that inclusive growth is one that provides economic opportunities for the average population. In this context, Ali & Son (2007) defines inclusive growth as a growth process that provides equal opportunities.

Rauniyar & Kanbur (2010) provide a summary of important measures that should not be absent for inclusive growth to occur. These include sustainable growth, a favorable political environment and provisions for social safety. Other researchers focused on the concept of pro-poor growth, which correlates with inclusive growth. Pro-poor growth is one that is beneficial to poor people (Ranieri & Almeida Ramos, 2013). The authors argue that two conceptual strands focus on pro-poor growth: one that focuses on poverty alleviation and another that looks at income distribution through increasing the income of the have-nots relative to the haves. The various definitions of inclusive growth converge to a consensus that it is growth that promotes shared prosperity.

Given that inclusive growth can only occur in the presence of economic growth, the foundation of the theoretical analysis should be on the finance-growth nexus. This theoretical relationship dates back to the research works of Schumpeter (1911), who argued that financial development especially through intermediation, promotes innovative activities and hence development. This foundation has been referenced by various researchers conducting related studies (Bertocco, 2008; Bittencourt, 2012). Shaw (1973) showed how financial deepening plays a role in economic development, especially in the presence of efficient financial institutions. The finance-inclusion relationship goes beyond the growth literature and provides an analysis of how financial development enhances shared prosperity. Several authors show that access to financial services has implications for standards of living and development (Bruhn & Love, 2014; Popov, 2018). The argument is that access to these services enables people to take part in investment plans and participate in productive economic engagements that promote inclusion. In the Kenyan context, the FinAccess Household Survey shows that access to financial services has a positive impact on counties through an increase in the ability to invest (Central Bank of Kenya, 2022b).

Financial development leads to growth through the allocation of capital to productive sectors of the economy and productivity gains (Levine, 2005). An analysis done by Corrado & Corrado (2017) shows that inclusive finance is important for providing the financial instruments that marginalized people can use to run their businesses and endure economic shocks. Mlachila et al. (2016) point out that financial sector efficiency and deepening help in creating more start-ups, making payments easier and providing insurance services that mitigate risk. Other studies show that the development of the financial sector promotes the mobilization of savings and the accumulation of capital (Lu et al., 2007; Quartey, 2008). The FinAccess Household Survey shows that finance plays a crucial role in Kenya since it facilitates the payment of basic goods, helps in solving emergencies and supports investments (Central Bank of Kenya, 2022b). Other ways in which financial development promotes inclusivity include innovation, reduced information asymmetry and risk management (Asongu et al., 2016; Vithessonthi, 2014).

Although the theoretical literature explains the link between financial development and inclusive growth to a large extent, there exist theoretical arguments that show the limitations of this nexus. For instance, lack of access to financial services limits poor people from engaging in productive activities that drive them out of poverty (Ampah et al., 2017). According to Acheampong et al. (2021), financial development can increase income inequality if the cost of borrowing is high. This is because at high interest rates, the rich can still get credit while the poor get locked out of financial access. Institutional quality also affects how finance promotes development (Appiah-Otoo et al., 2022). In this context, Marcelin & Mathur (2014) argues that weak institutions compromise the equitable distribution of resources and limit the development of financial markets. As countries strive to expand their financial markets, they are adversely affected by global economic shocks. A good example is the COVID-19 pandemic which led to an increased risk of non-performing loans, especially among poor people (Goodell, 2020).

Empirical Review

A number of studies have been undertaken to establish the nexus between finance and inclusive growth, but most evidence relates to other global regions other than East Africa. Using data collected from OECD countries, Cournède et al. (2015) tested the effect of financial services on inclusive growth. It was found that the finance composition determines growth. The study found that credit does not lead to growth, especially if it is advanced to households rather than businesses. It was also found that there is a positive relationship between financial expansion and income inequality. Xun et al. (2020) conducted a study to test the effect of digital finance on inclusive growth in China using data collected from the China Family Panel Studies. The study found that digital finance has a positive effect on household income and income distribution.

Rumbogo et al. (2021) tested the nexus between financial inclusion and inclusive development in Indonesia using panel data collected from 33 provinces. A positive and significant nexus was found. Similarly, Sanjaya & Nursechafia (2016) used provincial data in the same context and found that financial inclusion has a positive correlation with inclusive growth. Cui et al. (2022) employed panel data collected from 40 countries to establish the relationship between financial inclusion and inclusive growth. The study employed data from 2010 to 2020 and found a strong positive link between the variables.

Some panel studies have been conducted in Africa relating to financial development and inclusive growth. In this context, Gyamfi et al. (2022) conducted a study on the nexus using

panel data collected from 48 African countries. The authors employed the Generalized Methods of Moments (GMM) regression and found that there was a positive relationship between financial development and inclusive growth in the presence of strong institutions. However, the relationship was negative in the presence of weak institutions. In another study conducted by Oyinlola & Adedeji (2019) using data collected from 19 African countries, it was found that financial sector development strengthens the relationship between human capital and inclusive growth. However, the influence on this relationship depends on the measure of financial sector development used. Fowowe & Folarin (2019) conducted a study to establish the relationship between financial inequality and inclusive growth in Africa. A negative relationship was found, which implies that access to financial services is critical for inclusive growth in African countries.

Olayiwola (2022) tested the causality between financial sector development and inclusive growth in Africa using data collected from 32 sub-Saharan countries. A weak causality was found between the two variables. Another study conducted by Iddrisu et al. (2023) found that foreign bank presence has a positive influence on inclusive growth in Africa. Sawadogo & Fall (2021) conducted a similar study to test the effect of inclusive finance on inclusive growth among the West African Economic and Monetary Union (WAEMU) countries. A positive link was found between banking services and inclusion.

Other studies done in the African context focus on a single country. The single-country evidence on the relationship of interest mostly focuses on Nigeria. Ayinde & Yinusa (2016) conducted a study on financial development and inclusive growth in Nigeria using quantile regression to establish the threshold level for the nexus. The study established a threshold of the 90th percentile and found that the relationship depends on the measure of financial development. A similar study was conducted by Yinusa et al. (2020) using an asymmetric cointegration approach. The study found a long-run relationship between financial development and inclusive growth. Olanrewaju et al. (2019) tested the causality between financial inclusion and inclusive growth using the Toda-Yamamoto (TY) non-causality technique and found that the former had no Granger-causality with the latter.

The empirical review shows that there is a lack of substantial inquiry into financial development and inclusive growth in East African countries, particularly Kenya. Most of the studies done in the Kenyan context are on the finance-growth nexus, and they mostly find a positive link between the two variables (Bakang, 2015; Odhiambo, 2009; Onuonga, 2014b, 2014a). A study by Musembi & Chun (2020) employed bank claims as the measure of financial development and broad money to measure financial inclusion. The study found that bank claims have a positive effect while broad money hurts economic growth. Odhiambo (2008) tested the causal link between financial depth and economic growth and found that there is a unidirectional causality from the latter to the former. This shows that in addition to little empirical literature on financial development and inclusive growth, there exist mixed findings in the existing studies.

In addition to economic growth, the distribution of income is also an important aspect of inclusive growth. This shows that studies on financial development and income inequality are relevant to this study. Again, there is a lack of substantial inquiry into this relationship in Kenya, yet income inequality is a serious issue that needs attention in the country. Focusing on policies that reduce income inequality plays a significant role in making growth inclusive. The finance-inequality nexus has been tested in other regions across the world, but the findings

show mixed results across various indicators of financial development. For instance, Jauch & Watzka (2016) used credit to measure financial development and found a negative relationship with income inequality. Similar results were found by various researchers (Shahbaz et al., 2015; Shahbaz & Islam, 2011). On the contrary, Law & Tan (2009) found that financial development has an insignificant effect on income inequality. Seven & Coskun (2016) conducted a study in emerging countries and found that financial development has an influence on growth but does not necessarily create benefits for low-income people.

METHODOLOGY

Research Design

This study employs a causal research design. This design is suitable for the study because it enhances the examination of the cause and effect of the main variables of interest. Employing this design has made it possible to establish the causal link between financial development and inclusive growth.

Model Specification

The theoretical and empirical literature has helped in guiding the model that will be employed in this study. Based on the logical mechanisms explained by the theoretical literature and the empirical evidence on financial development and inclusive growth, the basic econometric model of this study is specified as follows;

$$inclgr = \alpha_0 + \alpha_1 y_{t-1} + \delta FD_{i,t} + \beta X_t + \varepsilon_t \quad (1)$$

Where *inclgr* represents inclusive growth, y_{t-1} is the initial income and *FD* is a specific dimension of financial development. *X* is a vector of control variables. These include human capital, government expenditure, inflation and government effectiveness. ε_t is the error term. α_0 is a constant while α_1 and Ψ are estimation parameters.

The basic model was modified to incorporate a dummy variable that represents structural breaks. This variable was introduced in the model to take care of years that Kenya experienced economic shocks as a result of unforeseen events. A good example is the year 2020 in which Kenya experienced economic shocks as a result of the Covid-19 pandemic. To provide a disaggregate analysis of financial development, three dimensions are studied; financial depth, access to financial services and financial efficiency. These dimensions were drawn from World Bank (2020). Financial depth is measured using private sector credit, access to financial services is measured using bank deposits and financial efficiency is measured using bank rate of return (ROA).

$$inclgr = \alpha_0 + \alpha_1 y_{t-1} + \alpha_2 PSC_t + \alpha_3 HC_t + \alpha_4 GE_t + \alpha_5 Infl_t + \alpha_6 GEF_t + \alpha_7 SB_t + \varepsilon_t \quad (2)$$

$$inclgr = \lambda_0 + \lambda_1 y_{t-1} + \lambda_2 BD_t + \lambda_3 HC_t + \lambda_4 GE_t + \lambda_5 Infl_t + \lambda_6 GEF_t + \lambda_7 SB_t + \varepsilon_t \quad (3)$$

$$inclgr = \theta_0 + \theta_1 y_{t-1} + \theta_2 BROA_t + \theta_3 HC_t + \theta_4 GE_t + \theta_5 Infl_t + \theta_6 GEF_t + \theta_7 SB_t + \varepsilon_t \quad (4)$$

Equations 2, 3 and 4 are models that capture the three aforementioned dimensions of financial development. They represent financial depth, access to financial services and financial efficiency respectively. *HC*, *GE*, *Infl*, *GEF* and *SB* represent human capital, inflation,

government expenditure, inflation, government effectiveness and structural breaks respectively. The three models were estimated using OLS regression.

Measuring Inclusive Growth

There is no unanimous measurement of inclusive growth, which poses challenges in relevant empirical studies. Some researchers have measured inclusive growth using productive employment. Others have constructed indices, even though their methodologies differ. This study also contributes to the measurement of inclusive growth using Kenyan data. As argued by Zhang & Wan (2017), inclusive growth consists of two dimensions: growth and income distribution. Going by this definition of inclusive growth, we construct an index using an indicator of growth and another indicator of income distribution as per the foundation given by Ali & Son (2007) and Anand et al. (2013). This has been employed in other studies such as Mutiiria et al. (2020). This study employs the income share of the bottom 50% of the population to represent income distribution due to the problem of data availability. Principal component analysis (PCA) was used to construct the inclusive growth index from the aforementioned indicators. This is an effective statistical technique for constructing a composite value from various dimensions of a phenomenon.

Data

Data forming the components of inclusive growth was collected from the World Bank Database and the World Inequality Database. Structural breaks in the economy were measured using a dummy variable. This variable was considered a categorical variable consisting of two categories: years with structural breaks and years without structural breaks. Years with structural breaks were assigned the value 1 while the years without structural breaks were assigned the value 0. Human capital data was collected from the Human Development Index Database. Data for the rest of the variables were collected from the World Bank Database.

Table 2 shows the descriptive statistics of the variables. Inclusive growth for the period 2000-2022 was between -1.314 and 1.129, which signifies low levels of inclusiveness in the economy. The data shows that initial income has changed over time as indicated by the minimum and maximum values. On average, credit advanced to the private sector represents 28.33% of the GDP. The mean bank deposits for the period is 34.03% of the GDP. The bank's return on assets is positive for all the years in the period under study. The mean value of this variable is 2.71%, which is acceptable in most cases. The mean value of human capital shows that there is still room for the accumulation of human capital, especially through health and education. The average rate of inflation for this period is 8.66%, which shows that there is a need to control prices to enhance macroeconomic stability.

Table 2: Summary Statistics

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|----------------------------------|-----|---------|-----------|--------|---------|
| Inclusive Growth | 23 | 0.049 | 1.004 | -1.314 | 1.129 |
| Initial Income | 23 | 1339.75 | 262.89 | 414.68 | 1705.74 |
| Private Sector Credit | 23 | 28.331 | 4.267 | 21.875 | 36.699 |
| Bank Deposits | 23 | 34.034 | 2.845 | 28.756 | 39.218 |
| Bank ROA | 23 | 2.710 | 0.866 | 0.452 | 3.977 |
| Human Capital | 23 | 0.543 | 0.034 | 0.481 | 0.601 |
| Government Expenditure (billion) | 23 | 7.637 | 2.761 | 4.561 | 13.229 |
| Inflation | 23 | 8.655 | 4.914 | 1.961 | 26.240 |
| Structural Breaks Dummy | 23 | 0.174 | 0.388 | 0 | 1 |
| Government Effectiveness | 23 | -0.532 | 0.136 | -0.756 | -0.301 |

Figure 1 shows the trend analysis for the three indicators of financial development. All three indicators have shown fluctuation over time. The bank's return on assets has shown less fluctuation over time. It is noticeable that this variable did not exceed 5% in any of the years. During the period 2000-2022, the banking sector never experienced negative values in the return on assets. The private sector credit and bank deposits have a similar pattern, which shows some interdependence between the two variables. For you to get a credit facility in any financial institution, you need to hold some deposits. It is also noticeable that the curve for bank deposits is higher than the curve for private-sector credit. Although bank deposit is a condition for getting credit, not all bank depositors will seek credit from financial institutions.

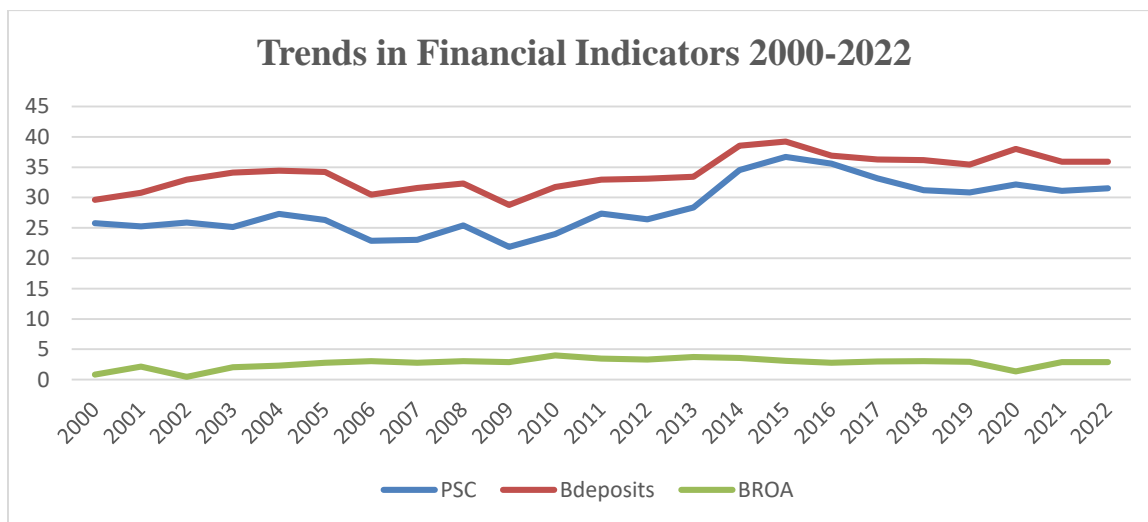


Figure 1: Trends in Financial Indicators 2000-2022

Source: Authors using Data from World Development Indicators 2022

Diagnostic Tests

Times series data is susceptible to issues such as non-stationarity, heteroskedasticity, multicollinearity and serial autocorrelation. Some diagnostic tests were conducted to ensure the assumptions of ordinary least squares (OLS) were met. Table 3 shows a summary of the tests that were conducted.

Table 3: Summary of Diagnostic Tests

| Diagnostic Test | Test Used | Results | Corrective Measure |
|--------------------|------------------------------|------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Normality Test | Shapiro Wilk test | Normality assumption was met | Not required |
| Heteroskedasticity | Szroeter's test | No presence of heteroscedasticity was detected | Not required |
| Stationarity | Augmented Dickey-Fuller test | Some variables were found to be non-stationary | The affected variables were differenced. Upon further testing, they were found to be stationary |
| Autocorrelation | Breusch-Godfrey test | No serial autocorrelation was detected | Not required |
| Multicollinearity | Variance Inflation Factor | No presence of multicollinearity was found | Not required |

RESULTS

Analysis of Inclusive Growth in Kenya

It is important to analyze inclusive growth in Kenya using all relevant and available data to provide more insights. An inclusive growth matrix is an effective tool for analyzing the distribution of inclusiveness. The inclusive growth matrix shows the trade-off between the two components of inclusive growth: economic growth and income distribution. Growth in GDP and equity growth (or reduced income inequality) were used to analyze inclusiveness in Kenya.

Table 4: Inclusive Growth Matrix Criteria

| Change in income and equity growth | Inclusion Status |
|------------------------------------|------------------------------------------------|
| $d\bar{y} > 0, \quad dw > 0$ | Unambiguous Inclusiveness |
| $d\bar{y} > 0 \quad dw < 0$ | High-income growth and relatively lower equity |
| $d\bar{y} < 0 \quad dw > 0$ | High equity and relatively lower income growth |
| $d\bar{y} < 0 \quad dw < 0$ | Unambiguous Non-inclusiveness |

Source: Anand et al. (2013)

Table 4 shows the changes in income growth and equity growth and the corresponding inclusion status. In the second row, both income growth and equity growth are positive, showing that there is unambiguous inclusiveness. Countries that achieve this status can be considered to have attained some level of inclusive growth. In the third row, income growth is positive but equity growth is negative. In this case, economic growth occurs at the expense of income distribution. One possibility of achieving inclusive growth in this case is if the rate of income growth is higher than the rate of equity growth. In the fourth row, equity growth is positive while income growth is negative. The equity growth in this case is not sustainable because there are no opportunities for income growth to be used for economic transformation. In the last row, both income growth and equity growth are negative, indicating that there is unambiguous non-inclusiveness. All countries should avoid this scenario because it

compromises socio-economic development.

The inclusiveness matrix can be applied in Kenya to show its distribution in terms of income growth and equity growth. Figure 6 shows the position of Kenya in the Inclusiveness Matrix. The data employed was between 2010 to 2022. This matrix has been divided into four sections to represent the four scenarios described in Table 4. The top left corner shows when income growth is positive while equity growth is negative. In the top right corner, both income growth and equity growth are positive. In the bottom left corner, both income growth and equity growth are negative. The bottom right corner shows that income growth is negative while equity growth is positive. Kenya appears in the top right corner, which may suggest that Kenya is performing well in terms of inclusive growth. However, a keen analysis of inclusive growth paints a different picture. For instance, Growth in Equity is less than 1%; which shows that Kenya is bridging the gap between the "haves" and the "have nots" at a rather slow rate. This rate may even be lower during economic shocks.

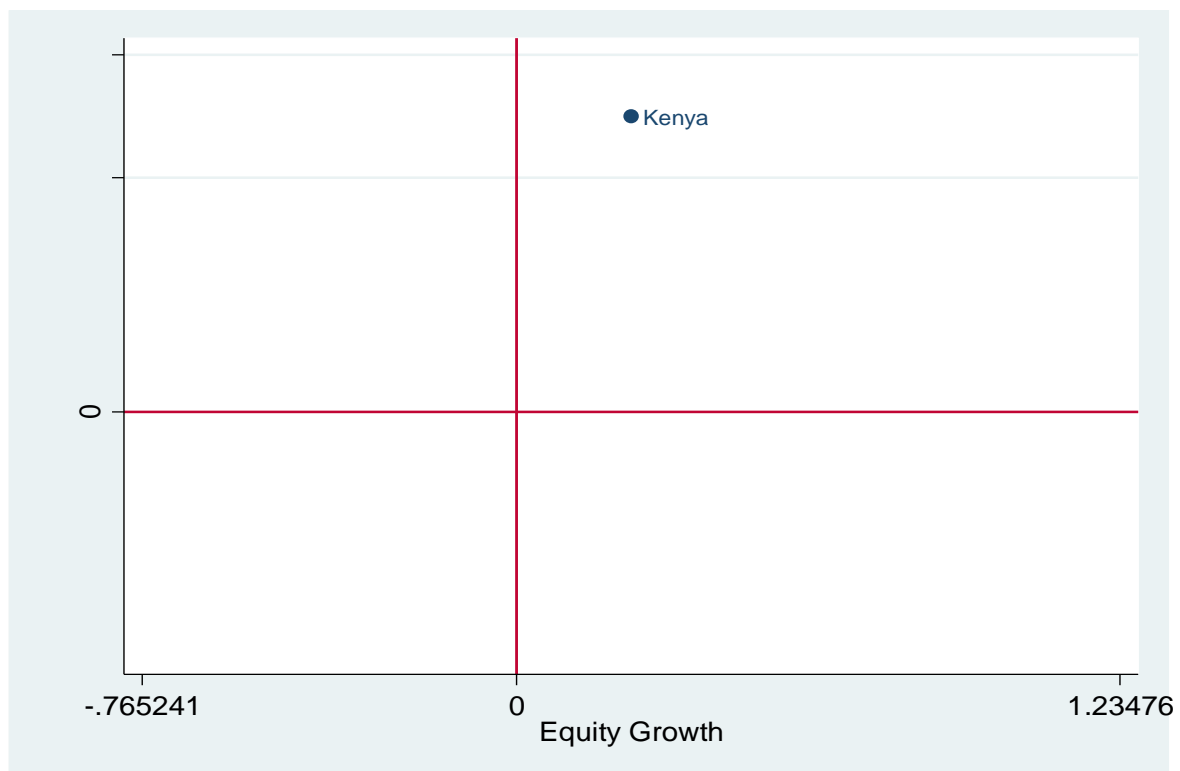


Figure 2: Kenya's Position in the Inclusiveness Matrix

Correlation Analysis

Table 5 shows the correlation matrix for the main variables used for the study. All three indicators of financial development show a positive correlation with inclusive growth. Private sector credit has the strongest correlation with inclusive growth (0.8074). Bank deposit has a strong correlation of 0.7138 with inclusive growth. However, bank ROA seems to have a relatively weaker correlation than the other indicators of financial development (0.4029). All the three independent variables have a positive correlation with each other. Private sector credit has a strong correlation of 0.9216 with bank deposits. This is partly because one is required to

hold deposits in a bank before getting credit. Private sector credit and bank deposits have low correlations with bank ROA (0.1331 and 0.1470) respectively.

Table 5: Correlation Matrix for Selected Variables

| Variables | Inclusive Growth | Private Sector Credit | Bank Deposits | Bank ROA |
|-----------------------|------------------|-----------------------|---------------|----------|
| Inclusive Growth | 1 | | | |
| Private Sector Credit | 0.8074 | 1 | | |
| Bank Deposits | 0.7138 | 0.9216 | 1 | |
| Bank ROA | 0.4029 | 0.1331 | 0.1470 | 1 |

Regression Results

Table 6 shows the regression results for financial development and inclusive growth. The last three columns represent regressions for specific dimensions of financial development. Column 1 shows the regression results for financial depth, represented by private-sector credit. This variable shows a positive relationship with inclusive growth, indicated by the coefficient 0.07. It is statistically significant at 1% significance level. The coefficient of this variable shows that a 1% increase in private-sector credit leads to a 0.07% increase in inclusive growth. Initial income is negative and statistically significant, which shows evidence of conditional convergence. This indicates that Kenya, just like other developing countries, is catching up with other developed countries. Human capital, government expenditure and government effectiveness show a positive relationship with inclusive growth. However, only human capital is statistically significant. Inflation has a negative and statistically significant effect on inclusive growth. Although structural breaks show a negative relationship with inclusive growth, the results are not statistically significant.

Table 6: Financial Development and Inclusive Growth in Kenya (2000-2022)

| Explanation Variables | Dependent Variable: Inclusive Growth | | |
|------------------------------|--------------------------------------|-----------------------|---------------------|
| | 1 | 2 | 3 |
| Constant | 6.435***(1.401) | 7.318***(1.847) | 11.457***(1.266) |
| Initial Income | -0.093***(0.041) | -0.140**(0.050) | -0.135**(0.576) |
| Financial Development | 0.070***(0.017) | 0.074**(0.031) | 0.156(0.171) |
| Human Capital | 11.649***(1.329) | 13.237***(1.477) | 15.422***(1.520) |
| Government Expenditure | 1.935(1.470) | 1.887(1.810) | 1.434(2.133) |
| Inflation | -0.333**(0.114) | -0.373**(0.139) | -0.531**(0.170) |
| Structural Breaks | -0.044(0.147) | -0.089(0.180) | 0.002(0.221) |
| Government Effectiveness | 0.302(0.837) | -0.091(1.022) | -0.688(1.314) |
| R-Squared | 0.9582 | 0.9367 | 0.9169 |
| Adjusted R-Squared | 0.9388 | 0.9072 | 0.8781 |

Notes: ***, ** and * represents statistical significance at 10%, 5% and 10% significance levels respectively. The standard errors are in parentheses.

Column 2 shows the regression results for the second dimension of financial development, access to financial services. This dimension is represented by bank deposits as the independent variable. This variable has a positive effect on inclusive growth as shown by the coefficient 0.074. This effect is statistically significant at 5% significance level. The coefficient shows that a 1% increase in bank deposits leads to a 0.074% increase in inclusive growth. The constant term is positive and statistically significant. This shows that holding all factors constant, inclusive growth will increase. Column 2 results also show the presence of conditional

convergence. The results for the control variables are largely similar to the results in column 1. Human capital has a positive and significant effect on inclusive growth while inflation has a negative and significant effect. Government effectiveness and structural breaks have negative and insignificant effects on inclusive growth. Although government expenditure has a positive effect on the dependent variable, its effect is not statistically significant.

The last column shows the regression results for the third dimension of financial development, financial efficiency. This variable is proxied by bank return on assets (ROA) and used as an independent variable. Bank ROA has a positive relationship with the dependent variable. However, this variable is not statistically significant, unlike the other proxies of financial development. The positive coefficient shows that when bank ROA increases by 1%, inclusive growth increases by 0.156%. Human capital, government expenditure and structural breaks show a positive effect on inclusive growth. However, there is statistical significance only in the case of human capital. Inflation has a negative coefficient that is statistically significant at 5% significance level. Government effectiveness has a negative coefficient that is not statistically significant. Just like the first two regressions, the third one shows evidence of conditional convergence.

Discussion

The inclusiveness matrix shows that Kenya has positive growth rates in economic growth and equity. However, the rate of equity growth is low, which shows that there is a slow reduction of income inequalities in the country. There is a low level of inclusivity in Kenya, which shows that there is a need to focus on policies that promote shared prosperity. The correlation matrix shows that private sector credit, bank deposit and bank return on assets have a positive correlation with inclusive growth. Bank deposit and private sector credit show a strong correlation while the ROA shows a weak correlation. The regression results show that the three measures of financial development have a positive effect on inclusive growth. However, only bank deposits and private-sector credit have a statistically significant effect on inclusive growth. These findings confirm that financial development has a strong influence on inclusive growth in Kenya. Bank deposits and private sector credit are the most conducive for inclusive growth in the country. Other significant determinants of inclusive growth in Kenya include initial income, human capital and inflation.

The findings of the study are comparable to various empirical studies. The results on private sector credit correspond to those of Delis et al. (2021), who find that credit reduces income disparities. These findings are however contrary to those of Cournède et al. (2015), who found that financial expansion has a negative influence on growth and inequality in OECD countries. Most of the empirical literature shows a positive and significant relationship between private-sector credit and growth (Amoo et al., 2017; Kiriga et al., 2020). The findings on bank deposits imply that access to financial services is crucial for inclusive development in Kenya. This is supported by the findings of Afolabi (2020), who found a significant link between financial inclusion and inclusive growth while using indicators of financial access.

Bank deposit has a significant influence on inclusive growth because it allows poor and marginalized people to enjoy financial services. In the absence of bank facilities, these people get disadvantaged because they have no platform for saving and investing. With bank deposits, people can store their money and mobilize savings for engaging in profitable investments. This eventually enables them to take part in economic activities that reduce the gap between the rich and the poor. Most financial institutions will advance loans to people who bank with them.

This emphasizes the role of bank deposits in the financial system. Financial sector reforms that increase the banking population can help in promoting more inclusion. This is because monetary policy in Kenya has been limited by the small number of people with bank deposits compared to the unbanked population.

Through private sector credit, poor and marginalized people can get facilities to invest and expand businesses. In the absence of these loans, some businesses would stagnate or close down. As financial institutions are expanding their credit facilities, they should also pay attention to issues that may limit the sustainability of credit in promoting inclusive growth. Some of the important issues of consideration include non-performing loans, high cost of credit and access to credit. High non-performing loans could limit financial institutions from expanding credit in the future. A favorable business environment and cheap loans can help in reducing non-performing loans. The government can promote access to credit by providing innovative credit facilities and providing incentives for commercial banks to give credit to people at the bottom of the economic pyramid.

The results for return on assets are insignificant, probably because the expansion of assets may not directly correspond to the creation of economic opportunities for various economic groups. However, ROA may have an indirect relationship since well-performing financial institutions have a greater capacity to provide more financial services to poor people. This shows that the sustainability of the effect of financial development on inclusive growth in Kenya can be enhanced through the improved performance of financial institutions. Well-performing financial institutions ensure that there is continuous provision of financial services with little risk of closure.

Although the findings on government expenditure, government effectiveness and structural breaks show an insignificant relationship with inclusive growth, the role of these variables cannot be ignored. The direction of these variables can give insights into the best reforms for promoting shared prosperity. For instance, solving the problem of inclusivity requires the government to focus its expenditure on marginalized regions to enhance inclusion. The outcome of inclusive growth programs will be optimized if there is government effectiveness. Historically, economic shocks have affected Kenya's growth and removed some gains already made. A good example is the COVID-19 pandemic that pushed many low-income groups below the poverty line. To cushion the vulnerable groups from greater inequality, the government should devise mechanisms that enhance resilience in the event of economic shocks.

Conclusion

This study aimed to determine the effect of financial development on inclusive growth in Kenya. There is a lack of substantial inquiry into financial development and inclusive growth in the East African region, particularly Kenya. To fill these gaps, an inclusive growth index has been constructed to solve the measurement problem in the Kenyan context. The study has then provided a disaggregated analysis of three main forms of financial development and their effect on inclusive growth in Kenya. An analysis of inclusive growth has also been done to show the level and nature of inclusivity in the country. Time series data was collected from the World Bank Database, World Inequality Database and Human Development Index Database in the period 2000-2022.

Given Kenya's high income disparity, the analysis of inclusive growth provides evidence that there is a low level of inclusivity and a slow reduction of income inequalities in Kenya. The empirical findings show that bank deposits and private-sector credit have a positive and statistically significant relationship with inclusive growth. The results on bank ROA show a positive but statistically insignificant relationship with the dependent variable. The findings for the control variables show that initial income, human capital development and macroeconomic stability are other important determinants of inclusive growth in Kenya. The overall findings suggest that financial development can be used to create economic opportunities for poor people, thus reducing income disparities.

The Kenyan government should focus on aspects of financial development that promote shared prosperity. The study confirms that financial depth and access to financial services are the most conducive to inclusive growth in Kenya. Therefore, policies for increasing these aspects, especially among low-income earners will help in creating socio-economic opportunities that reduce disparities. People at the bottom of the economic pyramid will enjoy financial services if key interventions in the financial sector are made. These include reducing the cost of borrowing, creating awareness on financial services and creating an enabling environment for financial institutions at the grassroots level. In the process of promoting financial inclusion, complementary policies are highly critical to enhance sustainability and prevent vulnerability. These include macroeconomic control and the development of human capital through investments in education and health.

Implications of the Study

This study has various implications for theory, practice and policy. An index of inclusive growth has been developed using Kenyan data. This way, the study has contributed to the ongoing conversation on inclusive growth, specifically on its measurement. This is a significant contribution to theory since inclusive growth does not have a unanimous definition and measurement. The low level of inclusiveness as shown by the inclusiveness matrix provides a basis for problem identification and agenda setting in relevant policies that enhance inclusive development. The empirical results on the finance-inclusiveness nexus provide evidence-based policy interventions that can help in reducing income disparities and enhancing shared prosperity. The disaggregated analysis of various aspects of financial development shows specific areas of policy intervention for inclusive development. Based on the findings, policymakers can analyze policy alternatives that drive financial inclusion through increased access to credit and expansion of the banking population. The study provides evidence to practitioners on the need to increase access to credit and expand the number of accounts in financial institutions, especially in marginalized regions. The FinAccess Household Survey conducted in 2022 indicated that there were huge disparities in financial inclusion in Kenyan counties. Based on this information, the findings of the study imply that policymakers and practitioners need to focus their attention on promoting financial access and financial depth in marginalized regions to create a significant impact on inclusive growth in Kenya.

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