



## RESEARCH ARTICLE

## Financial Inclusion, Institutional Quality and Inclusive Growth in Selected West African Countries

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| ARTICLE INFO   | ABSTRACT   |
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| Received: Sep 16, 2024<br>Accepted: Nov 7, 2024  | <p>The relationship between financial inclusion, institutional quality, and inclusive growth in West Africa remains underexplored, with most countries exhibiting varying degrees of institutional challenges and financial access. With this in mind, the purpose of this research is to examine the impact of financial inclusion and institutional quality on inclusive growth. The study focused on ten (10) West African selected countries over the period of 2013 to 2023. The study used secondary quantitative data in panel data structure (time series and cross sections) and used both descriptive and static regression (pooled, fixed effect and random effect) techniques in analysing the data. The finding from the causality relationship at aggregate level, reveal a bi-directional causality and a symbiotic relationship exists among number of commercial bank branches (F-stat=1.46521; P-value 0.0006), number of depositors (F-stat=8.34719; P-value 0.0006), rule of law (F-stat=3.15919; P-value 0.0000) and inclusive growth. However, the results at the disaggregated level, on the one hand, reveal that the three components of financial inclusion (number of commercial bank branches (F-stat=0.81216; P-value 0.0003), number of depositors (F-stat=1.46482; P-value 0.0009) reveal a symbiotic relationship, while on the other hand, the results at the disaggregated level regarding the component of institutional quality that is, rule of law (F-stat=1.96371; P-value 0.0006)) showed also a symbiotic relationship. Finally, judging from the results of the static panel regression, the findings reveal that the number of commercial bank branches (<math>\beta=0.127</math>; P-value =0.0002), number of depositors (<math>\beta=0.249</math>; P-value =0.0000), and the rule of law (<math>\beta=0.297</math>; P-value =0.0000) were all positively and significantly related to inclusive growth of the selected West African countries. Thus, recommends that the depositors can enhance inclusive growth by facilitating access to financial resources, promoting sustainable business practices, and encouraging economic participation from all sectors of society.</p> |
| <p><b>Keywords</b></p> Financial Inclusion<br>Institutional Quality<br>Rule of Law<br>Number of Depositors<br>Inclusive Growth |  |
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### INTRODUCTION

In the worldwide conversation on economic development, the idea of inclusive growth has received considerable attention. According to Schoneveld (2020), inclusive growth is characterised by a form of economic expansion that guarantees widespread advantages, embracing diverse sectors of society, instead than unduly benefitting a certain group. In the pursuit of sustainable development goals, inclusive growth has become a vital element in creating social cohesion, diminishing inequality, and fostering general economic stability (Alekhina & Ganelli, 2021).

According to Adeleye et al. (2020), inclusive growth is linked to various favourable results, such as enhanced human development indices, bolstered social stability, and heightened economic resilience. The International Monetary Fund (IMF) discoursed that countries that give importance to inclusive growth are more likely to achieve higher and more lasting levels of economic growth (Barinova & Zemtsov, 2020). This is because the advantages of development are distributed more fairly among the population. Moreover, the promotion of inclusive growth has the potential to alleviate poverty by enabling marginalised populations to get economic opportunities and resources (Ofori & Asongu, 2021). When focusing on West Africa, it becomes particularly important to prioritise inclusive growth due to the region's distinct socio-economic issues. West Africa, consisting of a range of nations with different degrees of economic advancement, has challenges like elevated poverty rates (Kouadio & Gakpa, 2022), income disparity (Ekeocha, 2021), and inadequate availability of essential services (Tang & Adesina, 2022). Thus, the imperative for inclusive growth in West Africa is emphasised by the capacity to tackle these difficulties and foster sustainable development in the region.

Furthermore, West Africa is characterised by enduring difficulties in poverty rates, income disparity, and inadequate access to fundamental services, which shape its socio-economic landscape. The COVID-19 epidemic intensified the economic challenges in the region, resulting in an almost three percent rise in extreme poverty in 2020. In 2021, the percentage of individuals living on less than \$1.90 a day increased from 2.3 percent to 2.9 percent compared to the previous year (Udu, 2022). This represents a nearly 35 percent rise and equates to almost 25 million people who are facing difficulties in meeting their basic food requirements. Regions that are significantly impacted are those now dealing with violence, such as the Lake Chad Basin, the Sahel, and the Liptako-Gourma region (Aikins & McLachlan, 2022). The concerning statistics highlight the immediate requirement for comprehensive approaches to tackle economic inequalities and improve food security in West Africa.

The issues of inadequate inclusive development in West Africa, which are marked by elevated levels of poverty and disparity in income, could potentially be addressed by strategically incorporating financial inclusion and improving institutional quality. According to Ozili (2020), financial inclusion, through facilitating entry to official financial services, has the potential to empower marginalised communities by equipping them with the means to handle uncertainties, amass wealth, and participate more actively in economic endeavours. Simultaneously, a strong institutional structure, characterised by openness, efficiency, and effective governance, can foster an atmosphere that promotes inclusive economic growth (Abate, 2022). This is because robust institutions are crucial for the fair allocation of resources, guaranteeing that the advantages of economic progress are accessible to all sectors of society. West Africa can create an environment conducive to inclusive and sustainable economic growth by promoting financial inclusion and enhancing institutional quality. This may make economic opportunities more accessible, aligning with both global development goals and national aspirations.

This study assesses the level of financial inclusion by examining individuals' access to formal financial services (number of commercial bank branches and number of depositors) and digital financial services (the automated teller machine users). The objective of access to formal financial services is to expand the accessibility and usage of conventional financial services, with the goal of reaching disadvantaged communities in urban and rural regions (Koomson et al., 2020). Simultaneously, digital financial services are examining the implementation of technology-driven financial solutions, utilising advancements such as the use of automated teller machine (ATM), mobile banking to overcome geographical limitations and improve financial accessibility (Aziz & Naima, 2021). Establishing a connection between these characteristics and equitable growth in West Africa may be crucial for effectively tackling socio-economic concerns. Liu et al. (2021) discoursed that enhanced availability of formal financial services empowers individuals by facilitating the accumulation of

savings, making investments, and providing access to credit, so promoting entrepreneurship and economic engagement.

Additionally, this study will analyse institutional quality by considering one key dimension of institutional quality – the rule of law. The concept of rule of law evaluates the degree to which legal systems are clear, consistently enforced, and safeguard the rights of individuals and companies (Li & Sun, 2022). Thus, it is crucial to establish a connection between rule of law and inclusive growth in West Africa in order to provide a favourable climate for fair and balanced economic development. This is because an effective rule of law guarantees that legal systems are impartial and clear, establishing a secure basis for businesses and individuals to function (Montes & Luna, 2020).

Hence, it is imperative to tackle the issue of inadequate inclusive economic development in Africa, which is worsened by elevated poverty levels, income disparity, and restricted availability of essential services in West Africa. However, there are notable gaps in the literature that this study seeks to fill. Access to formal financial services such as number of commercial bank branches and number of depositors, stands as a critical dimension of financial inclusion, yet the literature presents a notable gap in understanding its specific impact on inclusive growth. While previous studies acknowledge the importance of financial inclusion for economic development (Huang et al., 2021; Van et al., 2019; Pradhan et al., 2021), there remains a scarcity of comprehensive analyses that specifically analyse the relationship between access to formal financial services and inclusive growth. Existing research often provides broad insights into the role of financial inclusion in poverty reduction (Nsiah et al., 2021) but falls short in disentangling the distinct contributions of formal financial services, leaving an unexplored gap in the literature concerning the direct impact of access to formal financial services on inclusive growth especially in West Africa where inclusive growth still remains a pertinent issue.

Turning to the institutional quality dimension, the literature gap becomes apparent concerning the rule of law. While prior research acknowledges the importance of the rule of law in fostering economic development (Coccia, 2021; Chen et al., 2021; Urhibo, 2023), there is a paucity of studies that explicitly address its impact on inclusive growth especially in the context of West Africa. Existing scholarship often confines its examination of the rule of law to broader discussions on governance and economic development, failing to unravel its distinct contributions to inclusive growth. Thus, there is a need for a more targeted exploration that addresses the literature gap by elucidating the direct relationship between the rule of law and inclusive growth in West Africa.

Finally, based on the identified gaps in the literature, this study aims to contribute a novel perspective by systematically assessing the individual and combined effects of number of commercial bank branches, number of depositors per thousand users, and the rule of law, in selected West African countries. The literature review reveals a scarcity of research that explicitly explores these dimensions in tandem within the West African context. While existing studies acknowledge the importance of financial inclusion and institutional quality for economic development, the distinct relationships between these variables and their collective impact on inclusive growth in West Africa remain underexplored. Consequently, this study fills a crucial gap by offering a comprehensive analysis that not only dissects the individual contributions of each variable but also unveils the interconnected dynamics shaping inclusive growth in the region. The integration of these variables in a single study represents a novel approach, providing a holistic understanding of the complex interplay between financial inclusion, institutional quality, and inclusive growth within the West African context.

## **LITERATURE REVIEW**

The conceptual review, theoretical review, and empirical examination of capital structure and financial performance are all included in this part.

## Conceptual Review

According to Ozili (2020), financial inclusion is a multifaceted framework that plays a key role in economic development. It aims to remove barriers that have historically prevented marginalised communities from participating fully in formal financial institutions. The core of financial inclusion is in ensuring not only the availability but also the active use of official financial services by both individuals and businesses. The seminal study conducted by Fernández-Olit et al. (2019) places significant emphasis on its primary objective, which is to foster inclusive economic growth and mitigate poverty. Demir et al. (2020) discoursed that financial inclusion aims to eliminate barriers in the financial system so that people from all socio-economic backgrounds can access and benefit from formal financial services.

Financial inclusion encompasses multiple dimensions (such as the number of commercial bank branches and number of depositors) and encompasses a wide array of formal financial services. Financial inclusion, as defined by the Ozturk and Ullah (2022), includes number of commercial bank branches, number of depositors, and number of borrowers. This comprehensive approach acknowledges that true financial inclusion goes beyond just having access; it encompasses the presence of a wide range of appropriate financial products that meet the various and complex requirements of consumers. Renzhi and Baek (2020) opined that financial inclusion's dimensions play a crucial role in creating a fair and comprehensive financial environment, allowing individuals and enterprises to effectively participate in the formal financial sector.

The number of commercial bank branches in a country or region serves as a key indicator of financial inclusion, economic development, and the accessibility of banking services to the population (Accenture, 2021). Over the years, changes in the number of branches have been driven by technological advancements, regulatory frameworks, and shifts in consumer preferences. This review explores the conceptual factors that influence the number of commercial bank branches, the role of technology, and recent trends in branch closures and openings (Deloitte, 2022).

Historically, commercial bank branches served as the primary interface between banks and customers. They played a critical role in extending financial services such as savings, loans, and payment processing to individuals and businesses. The geographical distribution of bank branches often reflected a country's socio-economic conditions, with more branches located in urban areas where business activities and population density were higher. From the mid-20th century until the 1990s, the number of commercial bank branches steadily increased worldwide. This expansion was often fuelled by economic growth, rising incomes, and urbanization. In emerging markets, governments pushed for greater financial inclusion through policies that encouraged the establishment of bank branches in rural and underserved areas.

On the other hand, depositors, according to Demirgüç-Kunt, Klapper and Singer, (2021), are key stakeholders in any banking system, providing a crucial source of funding for banks. In return, depositors receive interest on their deposits. The number of depositors in a bank, or across the banking sector, impacts the financial health of institutions and the broader economy. Banks utilize depositor funds to engage in lending activities, which can lead to profits from interest rate differentials (i.e., the spread between deposit rates and lending rates). The number of depositors influences the size of the deposit base, directly impacting a bank's lending capacity and profitability. A growing depositor base is typically seen as a positive indicator of public trust and the bank's financial health.

Recent studies highlight that depositors also play an increasingly important role in determining banking competition. Banks that attract a larger number of depositors can use their lower cost of capital to offer competitive loan rates, further strengthening their position in the market (Acharya & Mora, 2023). However, an excess concentration of depositors in one institution can create systemic risk, as seen in the context of bank runs.

Moreover, the study of depositor behaviour has gained renewed interest due to its connection with financial crises (Goldstein, 2022). Bank runs occur when depositors collectively lose confidence in the institution's ability to return their funds, leading to mass withdrawals. The number of depositors and their behaviour are critical in determining whether a bank will face liquidity issues during economic downturns. The classic Diamond-Dybvig (1983) model demonstrates how the collective action of depositors can result in a bank run, even if the bank is fundamentally solvent. More recent work expands on this, considering how heterogeneous depositor preferences—influenced by factors like wealth, liquidity needs, and behavioural biases—can increase or decrease the likelihood of such events (Goldstein, 2022).

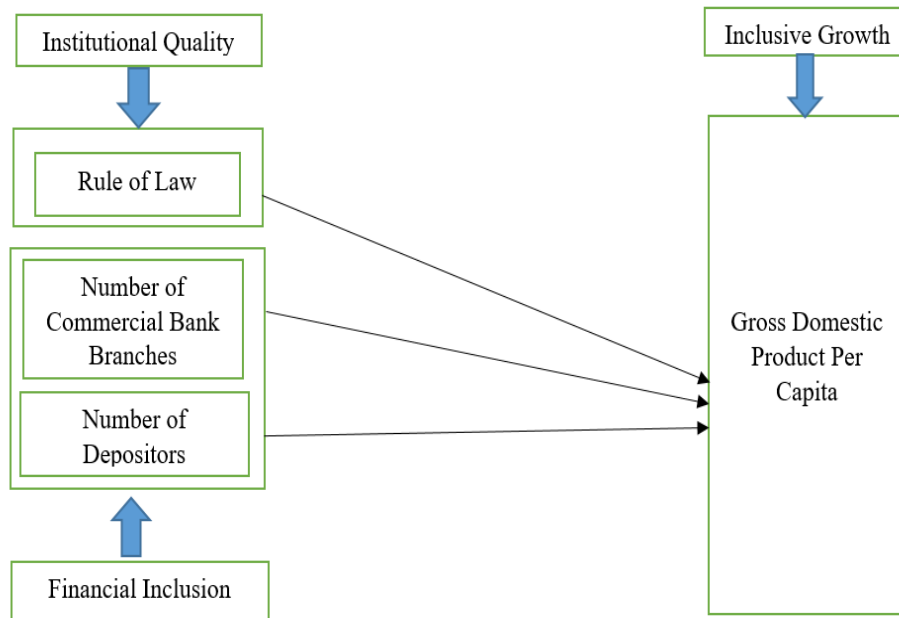
Institutions have a crucial impact on the environment in which financial inclusion takes place. Buitrago and Barbosa (2021) argue that the efficacy of governing structures, compliance with legal principles, and regulatory frameworks all impact the extent to which financial services are accessible. In order to foster trust in the financial system, it is crucial to have robust institutions that exhibit transparency and accountability (Islam et al., 2021). Property rights and legal adherence establish a conducive climate that instills confidence in individuals and enterprises regarding their financial activities, hence encouraging trust in the formal financial sector (Li et al., 2022). The establishment of a regulatory framework by institutions plays a crucial role in fostering financial inclusion. A conducive regulatory framework not only motivates financial service providers to expand their operations to underserved areas but also guarantees that such expansion takes place while protecting the interests of consumers (Khan et al., 2022). Regulatory measures that promote innovation and responsible financial practices, while also safeguarding customers, enhance the resilience and integrity of the financial industry (World Bank, 2014). The regulation has a crucial role in fostering growth and safeguarding consumers, hence contributing to the development of stable and equitable financial systems (Cassimon et al., 2022).

The rule of law is a crucial aspect of institutional quality, acting as a key indicator of the effectiveness and fairness of governance systems in a society. The rule of law refers to a system where laws are unambiguous, easily understood, and uniformly enforced. This system establishes a structure that regulates the conduct of individuals, institutions, and the government (World Justice Project, 2021). This fundamental premise guarantees that legal procedures are strong and resilient, creating a predictable and fair environment for all individuals in society.

Legal certainty is a crucial component of the rule of law. This implies that rules should be unambiguous, easily understood, and consistent, so minimising uncertainty and promoting a steady framework for economic and social transactions (Muhammad & Long, 2021). According to Bekun et al. (2021), clear and consistently enforced legal regulations enable individuals and enterprises to make well-informed choices, confidently engage in contractual agreements, and have assurance that their rights and responsibilities are safeguarded. Another crucial aspect is the concept of legal equality (Obobisa et al., 2022). Sabir et al. (2020) discoursed that the principle of legal supremacy requires that all individuals, irrespective of their socio-economic level, ethnicity, or other attributes, are bound by the same body of laws and granted equal safeguarding by legal establishments (Khan et al., 2021). This idea fosters equity and impartiality in society, guaranteeing that legal procedures are not applied capriciously or prejudicially.

Finally, inclusive growth is a notion that is becoming more important in economic discussions. It refers to a comprehensive strategy to development that focuses not only on economic progress, but also on ensuring that the benefits are distributed fairly across different sections of society (Bianchi & de Man, 2020). It is a deviation from conventional methods of measuring growth that predominantly concentrate on overall economic indicators, placing greater emphasis on the significance of guaranteeing that the benefits of development are distributed widely among all individuals in society (Sun et al., 2020). The discussion on inclusive growth is fundamentally centred around tackling inequalities, developing social unity, and supporting sustainable progress.

Inclusive growth is fundamentally focused on diminishing poverty and income inequality (World Bank, 2020). In contrast to traditional models of economic development that may unintentionally worsen inequalities, inclusive growth focuses specifically on improving the living conditions of the most disadvantaged and vulnerable groups. This is consistent with the wider global development agenda, such as the United Nations' Sustainable Development Goals (SDGs), which seek not only economic progress but also the improvement of overall well-being for everyone (United Nations, 2021).



**Figure 2.1: Conceptual Framework – Showing the link between financial inclusion, institutional quality and inclusive growth. Source: Author's Framework (2023).**

### Theoretical Review

The theoretical review examines the relationships between financial inclusion, institutional quality, and inclusive growth through several economic theories, such as endogenous growth and institutional economics. The finance-led growth hypothesis, advanced by economists like Goldsmith (1969) and Shaw (1973), highlights the essential role of a strong financial sector in mobilizing savings, improving resource allocation, and fostering economic growth, influenced by demand for financial services as the economy expands (Alhassan et al., 2021). Modern growth theory, developed by Romer (1986), Lucas (1988), and Grossman & Helpman (1991), underscores the financial sector's contribution to long-term growth through capital accumulation and technological advancement, showing that financial inclusion, coupled with robust institutions, promotes inclusive growth (Jungo et al., 2022). The environmental governance theory links effective governance to environmental sustainability and economic growth, arguing that strong governance fosters green development and economic resilience (Ansell & Torfing, 2016). Institutional theory, introduced by Meyer and Rowan (1977), examines how formal and informal norms and structures within institutions shape individual and organizational behaviours, thus facilitating social cohesion and order despite interpretative challenges (Scott, 2021). Together, these theories offer a multidimensional framework to understand how financial and institutional factors shape economic development and inclusive growth (Stiglitz et al., 2021).

### Theoretical Framework

The theoretical framework for this study integrates modern growth theory and environmental governance theory, offering a dual perspective on how financial inclusion, institutional quality, and

inclusive growth interconnect. Modern growth theory, developed by economists such as Romer (1986), Lucas (1988), and Grossman and Helpman (1991), emphasizes the role of endogenous technological progress and capital accumulation in sustaining economic growth, suggesting that policies fostering research, innovation, and human capital are pivotal for long-term economic progress (Easterly, 2021). This theory supports the investigation into how financial inclusion and institutional quality, key elements within the economic structure, can drive inclusive growth by encouraging technological and productivity advancements (Mordi, 2019). Complementing this, the theory of environmental governance underlines the importance of strong governance structures for achieving sustainable economic growth, asserting that effective government action is critical for balancing development with environmental protection (Ansell & Torfing, 2016). This theory's assumption that proactive governance can facilitate green growth adds an essential ecological dimension, reinforcing that inclusive economic growth should also prioritize environmental sustainability (Cox et al., 2016). Together, these theories provide a comprehensive framework that considers both economic and environmental dynamics, offering a holistic view of inclusive growth within West African economies.

### **Empirical Review**

This section of the report is used to do an empirical review for the study. The following studies were reviewed by the study. Aracil et al. (2022) investigate how the quality of institutions influences the connection between financial inclusion and the reduction of poverty. They analyze data from 75 countries, both developing and developed, spanning the years 2004 to 2017. The research used six distinct metrics of financial inclusion in conjunction with a variable representing an informal political institution. It utilized both cross-sectional and quantile analytic techniques. The study's results indicate that the quality of institutions enhances the positive impact of financial inclusion on poverty rates. The impact is more prominent in less affluent nations than to more prosperous ones. The results have significant implications for policy makers who want to address the institutional factors that contribute to poverty.

Bayraktar et al. (2023) conducted a study to examine the correlation between financial development and economic growth. The authors also analysed the comparative effectiveness of several financial development indicators on economic growth. The research included six variables of institutional quality and seven indicators of financial development. The Dumitrescu-Hurlin causality test results indicate a clear causal association between all financial development measures and growth. Raji (2021) investigated the causal connection between financial inclusion and inclusive development in Nigeria. The study employs a four-variable ARDL-EC framework and a forecast error variance decomposition approach utilizing quarterly data from 2003 to 2018. This approach aims to avoid variable omission bias, a common issue in previous studies. The results of the implemented methods validated the existence of long-term and mutually causal connections primarily between financial inclusion and inclusive development in Nigeria. Furthermore, the research results indicate that there are reciprocal cause-and-effect correlations between the outcome of the study and both financial inclusion and government efficacy. Similarly, there are also documented connections between inclusive growth and regulatory quality, primarily in the short-term.

Mohammed et al. (2023), analysed the influence of financial inclusion on the economic growth in Sub-Saharan Africa (SSA). The study concludes that financial inclusion has a beneficial effect on the economic growth of Sub-Saharan Africa, regardless of the specific measure of economic growth being analysed. The findings also demonstrate diverse impacts of institutional quality on different indicators of economic growth. It is implied that growth strategies should not overlook the importance of institutions and financial inclusion. Yakubi et al. (2022), conducted an analysis on the impact of all components of financial inclusion, namely access, usage, and quality, on the socio-economic growth of 77 low-income countries. Data from several sources, such as the World Bank and the IMF, were collected in a cross-sectional manner. The data was then analysed and the multiple

regression procedure was conducted using SPSS software. The findings indicate that each aspect of financial inclusion has a notable and favourable effect on socio-economic progress, although to varying degrees. The levels of access and usage were greater than those of quality. The research also uncovers a significant positive correlation between the components of sustainable development, namely the educational attainment of the population and the per capita real income in low-income families.

In a study conducted by Niaz (2022), the focus was on examining the relationship between financial inclusion and socio-economic development, specifically in relation to the achievement of sustainable development goals. This study evaluates the comprehensive socio-economic progress by examining various sustainable livelihoods, multidimensional poverty, living standards, and social development indicators. The Multidimensional Poverty Index (MPI) and Living Standard Index (LSI) have been calculated in order to assess poverty levels and advancements in living conditions. A survey has been conducted to assess the impact of microfinance banks (MFBs) on 503 clients, as well as 500 control respondents, during a two-year period. This research provides evidence that the microfinance acquired from MFBs has a beneficial impact on sustainable livelihoods, multidimensional poverty reduction, and living standards. Nevertheless, microfinance does not foster social development. Urban-dwelling individuals, particularly women, who are economically disadvantaged, derive greater advantages from microfinance compared to those living in rural areas. In summary, the study determined that financial inclusion can serve as a means to meet the Sustainable Development Goals (SDGs) in the future by promoting the socio-economic development of a disadvantaged part of society.

In their study, Yinusa et al. (2020) examined the relationship between institutional quality, financial development, and inclusive growth. This study investigated the relationship between the quality of institutions, the development of the financial sector, and inclusive economic growth in Nigeria from 1984 to 2017. The study utilized an asymmetric cointegration approach to examine the enduring connection between institutional quality, financial development, and inclusive growth in Nigeria. The study's findings indicate a durable correlation between institutional quality, financial development, and inclusive growth in Nigeria. The study revealed that the process of achieving equilibrium for institutional quality, financial development, and inclusive growth in Nigeria was shown to be asymmetric.

Botchuin (2021) conducted a study on the institutional variables that contribute to inclusive economic growth in Côte d'Ivoire. This study employs the ARDL Bounds technique to test for cointegration and assess the impact of institutional factors on inclusive growth in Côte d'Ivoire from 1984 to 2018. The International Country Risk Guide (ICRG) Index serves as a measure of institutional characteristics. Empirical evidence indicates that government stability, as an institutional element, has a substantial and statistically significant impact on inclusive growth in both the short and long term.

Utile et al. (2021) conducted a study examining the influence of institutional quality on the economic growth of Nigeria. This study investigated the impact of institutional quality on the economic growth of Nigeria over the 21st century. The analysis was conducted using annual time series data from 2001 to 2019. The variables' data underwent an ADF unit root test to identify any unit root issues. The results indicated that all variables were either integrated of order 1 (I(1)) or integrated of order 0 (I(0)). Therefore, the Pesaran, Shin, and Smith (PSS) Bounds test was utilized and it verified the presence of a long-term association among the variables examined. The study employed the Auto-Regressive Distributed Lag (ARDL) model and determined that Institutional Quality (INSQ) had a notable adverse impact on economic growth.

Abdulwahab (2023) empirically examined the role of Institutional quality, human capital development on economic growth in Sub-Saharan Africa. The paper examined the role of institutional quality and human capital development on economic growth in Sub-Saharan African (47) countries.



The study employed secondary data from all the countries within the Sub-Saharan African countries region for the period of nineteen years, with the exclusion of South Sudan due to insufficient data; all the data was sourced from the World Bank Database and was analyzed via the use of fixed effects regression based on the nature of the study (i.e., Panel data). This study's findings revealed that IQ and HDI are statistically insignificant in the economic growth of the SSA region.

### **Literature Gap**

The current body of research highlights a significant lack of investigation into the influence of financial inclusion and institutional quality on inclusive growth, specifically in the West African region. Although many research have examined the connection between financial inclusion, institutional quality, and economic growth or development, there is a noticeable absence of thorough investigations explicitly concentrating on the dynamics of Inclusive Growth in West African countries. Significantly, most of the examined research primarily focus on general economic success measures rather than exploring the intricate aspects of inclusive growth. Inclusive growth, in contrast to overall economic growth, prioritizes the equitable distribution of benefits among all sectors of society, guaranteeing that the advantages of progress are not limited to the wealthy but also extend to neglected groups. The lack of research that takes this more specific viewpoint, particularly in the context of West African countries, indicates a significant gap in the existing literature that requires more investigation.

Furthermore, in the few studies that address the relationship between financial inclusion and institutional quality, the current research frequently examines these elements separately instead of doing a thorough analysis of their collective influence on inclusive growth. Although Demirguc-Kunt and Klapper (2021) and Beck et al. (2022) have previously investigated the worldwide connection between financial inclusion and economic growth, there is a lack of research that concurrently examines the complex interplay among financial inclusion, institutional quality, and inclusive growth. This study is distinct because it fills a vacuum by explicitly studying West African states and thoroughly analysing how financial inclusion and institutional quality together impact the outcomes of inclusive growth. This comprehensive approach seeks to improve our comprehension of the intricacies underlying the dynamics of inclusive growth in the particular context of West Africa.

### **METHODS**

The study employs an ex-post facto research design aligned with a positivist perspective, prioritizing quantitative data collection and analysis, and aiming for reliability and control (Goodman-Scott et al., 2021). Secondary data was gathered from the World Governance Indicators (WGI) and Central Banks of selected West African countries, enabling an examination of financial inclusion and institutional quality's effects on inclusive growth. The ex-post facto approach is quasi-experimental, relying on real-life observations and group distinctions without direct experimentation, facilitating analysis based on historical events (Pattnaik et al., 2023). This study's independent variables include the availability and use of formal and digital financial services, rule of law, corruption levels, bureaucratic quality, and political stability, while Real Gross Domestic Product Growth Rate (RGDPGR) is the dependent variable. West Africa's 18 countries formed the population, from which 10 were randomly selected using a simple random sampling approach in Excel (Hair et al., 2019; Kothari and Garg, 2014). The 10-year dataset, spanning 2013 to 2023, includes time-series data on financial inclusion, institutional quality, and RGDP growth, with the data's availability and reliability supported by secondary sources like the WGI and Central Banks (Hair et al., 2019). This design ensures that the sampled data from these institutions provides dependable and unbiased insights into the relationships between variables, with a view toward enhancing financial inclusion and institutional quality for inclusive growth in West Africa.

**Model Specification**

Following the strategy of Olanrewaju et al. (2019), this study investigates the factors explaining inclusive growth by setting up a model where inclusive growth is dependent on a countries’ financial inclusion and institutional quality variables. Therefore, the model proposed for the realization of the goals of the study is as follows:

$$GDPPC = f( NOCOMMBANKBRANCHES, NODEP, RULAW \text{ ----- } (1)$$

The equation above is decomposed below into econometric form as:

$$GDPPC_{i,t} = \beta_0 + \beta_1 NOCOMMBANKBRANCHES_{i,t} + \beta_2 NODEP_{i,t} + \beta_3 RULAW_{i,t} + \epsilon_{i,t} \text{ ..... (2)}$$

Where:

GDPPC = Gross Domestic Product Per Capita

NOCOMMBANKBRANCHES = Number of Commercial Bank Branches

NODEP = Number of Depositors

RULAW = Rule of Law

$\beta_1$ - $\beta_3$  = Beta Coefficient

$\beta_0$  = Constant

$\epsilon$  = Error Term

The secondary data collected for the study was examined quantitatively through descriptive and inferential statistics. Descriptive statistics describe the characteristics of the data that has been collected and examined. Maximum, minimum, mean and standard deviation will be employed as descriptive statistics. At a 5% significance level, panel multiple regression (Pooled, FEM, REM) techniques was applied to assess the hypotheses.

**Scope of the Study**

The study examined the impact of financial inclusion and institutional quality on inclusive growth in West Africa. The study’s target population consisted of the 18 countries in West Africa. The sample size for the study was 10 randomly selected countries in West Africa. The research was done from 2013 to 2023.

**RESULTS**

**Descriptive Statistics Results for the Model**

In order to avoid the wrong use of financial econometric tools, the descriptive properties of the data was determined before determining the best statistical tool to use for the analysis. Table 1 presents the descriptive statistics of the data for the model.

**Table 1 Descriptive Statistics Results Test for the Model**

| Characteristics | GDPGR | NO COMMBANKBRANCHES | NODEP  | RULAW   |
|-----------------|-------|---------------------|--------|---------|
| Mean            | 1281. | 5.069101            | 368.55 | -0.5876 |
| Std. Dev.       | 675.1 | 1.734508            | 299.9  | 0.2934  |
| Skewness        | 0.575 | 0.901104            | 2.121  | 0.6183  |

|              |       |          |       |        |
|--------------|-------|----------|-------|--------|
| Kurtosis     | 1.898 | 4.044749 | 6.688 | 2.6730 |
| Jarque-Bera  | 9.410 | 16.09213 | 117.2 | 6.0671 |
| Probability  | 0.009 | 0.000320 | 0.000 | 0.0481 |
| Observations | 89    | 89       | 89    | 89     |

Source: Author's Computation (2024)

The summary of the statistics used in this empirical study is as presented in the Table 4.1. It can be observed that gross domestic product per capita has the highest mean value of 1281.7 while the rule of law has the lowest mean value of -0.5009, whereas the number of commercial bank branches and number of depositors have mean values of 5.069 and 368.5 respectively. The standard deviation measures how concentrated the data are around the mean, hence it can be observed from the study presented in Table 1 that gross domestic product per capita has the highest mean value of 675.1 while the rule of law has the lowest mean value of 0.293, whereas the number of commercial bank branches and number of depositors have mean values of 1.734 and 299.9 respectively. This gives the implication that the values for the operational data values are further from the mean on averages. The measure of how asymmetric a distribution can be called skewness. All the variables were positively skewed except political stability meaning that the mass of the distribution is concentrated on the right (that is, it is said to be left-skewed). The implication of this is that the skewness tends to say more on the mean value of the distribution being higher or lower than the median. Hence, positively skewed value indicates a higher mean value over the median value. On the part of Kurtosis, all the variables used present positive values which mean that the distribution is leptokurtic (too tall).

**Table 2 Augmented Dickey Fuller Unit Root Test**

| VARIABLES                 | Level               |                                   | First Difference    |                                   | Order of Integration |
|---------------------------|---------------------|-----------------------------------|---------------------|-----------------------------------|----------------------|
|                           | Levin, Lin & Chu t* | Im, Pesaran and Shin W-stat tests | Levin, Lin & Chu t* | Im, Pesaran and Shin W-stat tests |                      |
| <b>GDPPC</b>              | -1.344              | 1.180                             | -11.05**            | -4.77**                           | 1(1)                 |
| <b>NOCOMMBANKBRANCHES</b> | -9.09**             | -3.61**                           | -30.04**            | -8.05**                           | 1(0)                 |
| <b>NODEP</b>              | -111.2**            | -81.1**                           | -12.64**            | 1233.9**                          | 1(0)                 |
| <b>RULAW</b>              | -14.7**             | -2.49**                           | -5.58**             | -3.17**                           | 1(0)                 |

Source: Author's Computation, (2024)

The result from the table above showed that at a 5% level of significance, the unit root tests reveal that number of commercial bank branches, number of depositors, control of corruption and rule of law were all stationary at level (that is, integrated of order one or I(0) while only gross domestic product per capita was stationary at first difference (that is, integrated of order one or I(1)).

**Table 3: Results of Static Panel Regression Analysis for ROA Model**

| Variables          | Pooled OLS |            |         | Fixed Effects Model |            |         | Random Effects Model |            |         |
|--------------------|------------|------------|---------|---------------------|------------|---------|----------------------|------------|---------|
|                    | Coef.      | Std. Error | P-Value | Coef.               | Std. Error | P-Value | Coef.                | Std. Error | P-Value |
| C                  | 4.230      | 4.408      | 0.007   | 7.623               | 1.666      | 0.000   | 0.8138               | 1.6667     | 0.0008  |
| NOCOMMBANKBRANCHES | 0.127      | 5.259      | 0.000   | 0.320               | 1.192      | 0.000   | 0.2908               | 1.8623     | 0.0002  |
| NODEP              | 0.249      | 0.511      | 0.000   | 0.580               | 0.329      | 0.005   | 0.7869               | 0.8990     | 0.0000  |
| RULAW              | 0.297      | 4.281      | 0.000   | 0.709               | 1.747      | 0.000   | 0.7857               | 0.9872     | 0.0000  |

|               |          |          |          |
|---------------|----------|----------|----------|
| R-Square      | 0.521643 | 0.970417 | 0.795441 |
| Adj R-Square  | 0.486641 | 0.959949 | 0.778548 |
| Prob (F-Stat) | 0.00000  | 0.00000  | 0.000000 |
| Durbin Watson | 2.134894 | 1.989528 | 1.921151 |

Source: Author's Computation, (2024)

Judging from the results of the panel regression above, it can be observed that the results of the pooled regression, fixed effect model as well as the random effect model are identical. In the sense that the coefficients of the financial inclusion and institutional quality namely: number of commercial bank branches (NOCOMMBANKBRANCHES), number of depositors (NODEP), and rule of law (RULAW) were all positively and significantly related to inclusive growth of the selected West African countries proxied by gross domestic product per capita (GDPPC).

**Table 4: Hausman's Specification Tests on Panel Model Result**

| Correlated Random Effects - Hausman Test                      |                   |              |        |
|---|-------------------|--------------|--------|
| Test cross-section and period random effects                  |                   |              |        |
| Test Summary  | Chi-Sq. Statistic | Chi-Sq. d.f. | Prob.  |
| Cross-section random  | 0.805623          | 3            | 0.8481 |
| Period random   | 0.195247          | 3            | 0.9784 |
| Cross-section and period random                               | 0.186341          | 3            | 0.9798 |
| ** WARNING: estimated period random effects variance is zero. |                   |              |        |

Source: Author's Computation, (2024)

\*, \*\*, \*\*\* indicate significant at 10%, 5%, 1% levels, respectively

According to Gujarati and Porter (2009), when the p-value is significant at 5% level, the fixed effects model is more appropriate for valid inferences to be made. However, judging from the Hausman's test result conducted above, it can be observed that the results of the Chi-Sq. Statistics and the p-value of the cross-section random indicate 0.8056 and 0.8481 respectively. Meaning that since the p-value is greater than 5%, hence the discussion of random effects model's regression results would be favoured.

## DISCUSSION

The finding of this study reveals that number of commercial bank branches have positively and significantly impact on gross domestic product per capita in selected West African countries which indicates a direct relationship with the inclusive growth proxied by gross domestic product per capita. Meaning that the presence of commercial bank branches can significantly influence Gross Domestic Product (GDP) per capita by increasing financial inclusion, facilitating credit access, and promoting economic growth. The finding of this study agrees with the finding of this study agrees with the finding of (Ghosh, 2019; Demirgüç-Kunt et al. 2022; Beck & Cull, 2020; Sahay et al., 2022).

Additionally, the finding of this study reveals that the number of depositors was positively and significantly related to inclusive growth of selected West African countries proxied by gross domestic product per capita which indicates a direct relationship. Meaning that since the financial institutions mobilize savings through deposits, which were in turn used to provide loans for investment, consumption, and entrepreneurial activities. These investments can improve productivity, employment, and innovation, thereby contributing to economic growth and, by extension, GDP per capita. The finding of this study agrees with the finding of (Anzoategui, Demirgüç-Kunt, and Martínez Pería, 2022; Beck and Cull, 2020; Sahay et al., 2022; Shen & Huang, 2023; Beck and Cull, 2020; Sahay et al., 2022; Shen & Huang, 2023).

Finally, the finding of this study reveals that rule of law was positively and significantly related to inclusive growth proxied by gross domestic product per capita which indicates a direct relationship with the inclusive growth of the selected West African countries. Meaning that a strong rule of law contributes to economic stability by ensuring predictable legal frameworks, protecting property rights, and reducing corruption. This stability encourages both domestic and foreign investments, which can lead to increased economic output and higher GDP per capita. Research indicates that countries with robust legal systems tend to attract more foreign direct investment (FDI), which significantly impacts economic growth. The rule of law is often associated with a predictable and secure environment for businesses and investors, leading to increased economic activity and growth. The finding of this study agrees with the finding of (Bénassy-Quéré et al., 2022; World Bank, 2020; Transparency International, 2021; Acemoglu et al., 2023 & Rodrik, 2021).

## CONCLUSION AND RECOMMENDATIONS

Judging from the results of the panel regression, the study concludes that the results of the pooled regression, fixed effect model as well as the random effect model are identical. In the sense that the coefficients of the financial inclusion and institutional quality namely: number of commercial bank branches, number of depositors and rule of law were all positively and significantly related to inclusive growth of the selected West African countries proxied by gross domestic product per capita.

In the light of the findings and based on the conclusions, this study evaluates the impact of financial inclusion and institutional quality on inclusive growth in selected West African countries. Therefore, this study recommends that although, there are symbiotic relationships among the components of both financial inclusion and institutional quality, depositors, commercial bank branches and the rule of law can be made to collectively enhance inclusive growth by fostering financial inclusion, promoting equitable resource distribution, fostering investment, and creating a stable and transparent environment for economic participation. Moreover, the commercial bank branches should endeavour to provide the credit and financial services that SMEs need to start and grow. By offering loans, working capital, and lines of credit, banks empower small businesses to expand operations, hire employees, and contribute to local economic development. More so, the Central Bank management should ensure a stable political platform in order to provide the necessary foundation for sound economic policies, effective governance, and social cohesion, all of which are crucial for achieving inclusive growth.

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