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THE EFFECT OF BANKING SECTOR EFFICIENCY ON THE ECONOMIC DEVELOPMENT IN WEST AFRICA

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Abstract

The primary goal of this research is to analyze whether the financial efficiency of the banking sector in the Economic Community of West African States region estimated by financial indicators as Return on Asset (ROA), Return on Equity (ROE) and Net Interest Income (NIM) affects the economic development measured by the Gross Domestic Product (GDP) growth. The choice of these profitability and rentability variables is inspired by the World Bank's indicators of financial institutions efficiency at country level. This research investigated the impact of banking sector efficiency on the economic development in country members of the Economic Community of West African States (ECOWAS) from 2010 to 2019. This study uses quantitative methodology in order to attain the main objective. The research proposes to develop a methodology, through theoretical study as well as making use of related literatures, which can be used in determining the impact of banking sector performance and economic development in West African region. The required data can be classified into two main categories: the factors that determine bank efficiency, and the economic indicator that explains growth in the region. The goal is to analyze whether the financial efficiency of banks lead to growth in the economies of countries. In our model, the banking sector efficiency measured by financial indicators as ROA, ROE, and NIM indicates the explanatory variables while annual growth rate of GDP for economic development measures the predicted variable.

The model uses Panel Generalized Method of Moment (GMM) to test the hypothesis from EVIEWS software. The result of our survey suggests that among all the explanatory variables only the return on asset (ROA) has statistically significant influence on the gross domestic product (GDP) growth rate meaning that the banking sector financial performance measured by ROA has significant impact on the economic growth in West Africa. The research shows that the main actors in banking sector and authorities should focus on the efficiency of banking system in order to drive a sustainable economic growth. In addition, this research obviously provides some important information to researchers, governments, financial analysts, banking policy makers and supervisory authorities

Keywords: Banking Sector, Efficiency, Economy, West Africa

1. Introduction

The banking sector in West Africa has developed in recent years. Bank credit to the economy has risen sharply in most countries since the mid-2000s. The banking system in the region is heterogeneous with low diversity. Baking institutions dominate largely financial systems in West Africa by detaining 90% of financial sector assets (IMF, 2021). After the countries in the region accessed to independence, the banking sector was mainly constituted of state banks and some international banks from the former colonial powers. Over the last decades, major changes have progressively changed the banking sector. An important transformation was the emergence of first private banks, followed by the implementation of their regional networks. The sector was also marked by the gradual decrease in number of big foreign groups and the important difficulties of state banks. Another major transformation was the creation of regional markets, which favored the creation of African banking groups with a regional and even continental dimension. Recently, the different stages and repetitive changes have shaped financial systems of West African countries.

The financial system is characterized by important changes during the last years in the region. For instance, the number of branches and bank accounts have significantly increased. The role of banks in maintaining strong and stable financial system is primordial for the economies. Consolidated by important wave of reforms, the banking sector started to expand activities, spread funding and develop scope through new products. The appearance of local banking groups and high competition are leading the banking industry to develop innovation strategies. Despite its importance, the banking sector must overcome new challenges to contribute on the region's economic development.

McKinsey and Company (2018) reported that the banking sector in Africa is one of the most dynamic of the world and represents the second global banking market regarding growth, benefit, and innovation. In addition, the paper revealed that the dynamic banking sector is pushing new business models to emerge aiming to overcome challenges such as the low proportion of banking market penetration, liquidity usage, and the small geographical mesh physical agencies and ATMs, especially in the retail banking. The African Development Bank (2021) acknowledges that Africa's GDP is expected to grow by 3.4% in 2021, following a 2.1% contraction in 2020 caused by the COVID-19 pandemic. The recovery will be supported by the expected rebound in tourism, an increase commodity prices and an easing of pandemic-induced restrictions. The African banking sector is growing rapidly and almost showing profitability twice above the global average. The market penetration level of retail banking in Africa is only 38% of the GDP according to a survey made by Mckinsey in 2018. This number represents half of the global average of other emerging countries of the world. In terms of size, the banking sector represented about 86 billion USD in revenue in 2018, with an expected growth of 8.5% yearly, banks of the continent will bring total revenue in to 129 billion dollars (Mckinsey and Co, 2018). Another characteristic of the sector in West Africa is the tremendous growth in number of banked individuals. In 2018 approximately 300 million adults were banked, compared to 170 million in 2012 (Statista, 2019). This number is expected to be 450 million people by 2022 which is nearly half of the total African population. African banks are

facing many challenges such as low level of income in many countries, the strong use of liquidity in most countries, and the low coverage of credit. However, some banks are already seizing opportunities from these challenges. The extension of digital banking service solutions in Africa allows the sector to design low-cost offers and adopt innovative distribution. Thanks to these innovations, the growth of banks turnover could increase significantly over the next five years. Africa is making significant growth rate that pulls millions of people from extreme poverty, creates a class of emerging consumers and stimulates a rapid economic growth in many countries.

2. Literature Review

The performance of banking sector has been subjected to several empirical studies. The main goal of our research is to examine the relationship between bank performance and economic growth in west African countries. Therefore, this section analyses factors that influence the performance and development of banks based on related literature.

Durosinmi (2019) conducted a survey to determine the impact of capital structure on the performance of Nigerian banks. The author's goal was to investigate the impact of equity on financial efficiency, and thus the relationship between financial leverage and bank performance. In his model, the bank's financial soundness was measured using capital adequacy, asset quality, earnings, and liquidity, while the equity-to-debt ratio and total debt-to-total-capital ratio represented capital structure. The researcher examined secondary data collected from financial proxies of the sample between 2010 and 2017 using descriptive statistics methodology and a regression technique. He concluded that debt ratio has a negative impact on bank performance, while shareholders' funds have a positive impact on their soundness, whereas there is a statistically significant negative relationship between leverage and bank solvency in Nigeria at a level of 1%. According to his research, the country's banking institutions should prioritize shareholder equity over debt in their capital structure.

Oni (2019) analyzed the factors influencing non-performing loans of the banking institutions in Sub-Saharan Africa. According to the author, there's a relationship between NPLs risk minimization and growth in the banking system and growth within the continent. His model focused on bank-specific, macro-economic, global, and institutional factors as key determinants of NPLs of Deposit Money Banks in the geographical area. The researcher applied the system GMM technique with an elaborated econometric method, supported a panel set from 23 Sub-Sahara African countries. The results of his research suggested that banks in Africa should emphasize mainly the performance of the real economy when enlarging loans to their customers, especially during expansion; because according to the author, loan delinquencies are likely to be higher in periods of an economic downswing. In addition, he suggests that governments of African countries should develop legal structuring to prevent adverse effects of bad loans and improve the regulatory body.

Otoo (2019) investigated the role of internal control in the financial performance of Ghanaian banks. A qualitative approach was used in his study to evaluate the real market life experiences of Ghanaian bank executives and employees with extensive knowledge of internal control strategies in the banking sector. According to the researcher, the findings confirmed that developing effective internal control strategies would be simple for Ghanaian banks to implement for financial efficiency. It also enables banks to secure potential customers' and shareholders' investments. However, the author revealed that implementing effective strategic internal control practices in banking can be extremely difficult from a practical standpoint in Ghana, because while Ghanaian banks continue to profit and increase shareholder wealth, some banks are closed down by the government due to insolvency or a lack of cash in reserves.

Tiamiyu (2019) investigated the impact of risk management on the financial effectiveness of Nigerian banks. His research goals are to assess the impact of various risks on bank performance, including credit risk, liquidity risk, operational risk, capital adequacy risk, and market risk management. Between 2008 and 2017, he used data from deposit banks' annual

reports and accounts traded on the Nigerian Stock Exchange. To validate his assumptions, the author analyzed the data using various statistical techniques such as descriptive analysis, Pearson correlation, and regression analysis. The findings revealed that operational risk has a statistically significant negative effect on return on assets, whereas capital adequacy risk has a statistically significant positive effect on return on equity. Furthermore, credit and operational risk have a negative significant impact on returns on equity, whereas capital adequacy risk, foreign exchange risk, liquidity risk, and interest rate risk have no positive or negative significant impact on returns on assets (Tiamiyu, 2019).

Areola (2018) surveyed the impact of credit risk indicators on the financial efficiency of Nigerian banks. The author aimed to assess the impact of loan inefficiency, the contribution of liquidity, and the impact of GDP on bank financial performance. ROA was used to measure bank performance in his study, while non-performing loan ratio, capital adequacy ratio, and loan to total deposit ratio were used to estimate risk level. The researcher examined data from ten commercial banks from 2010 to 2015, and his findings indicated that credit risk indicators have a positive impact on bank financial solvency. However, he revealed that the real gross domestic product is statistically insignificant in terms of bank performance.

Yinusa (2018) investigated the role of intellectual capital in the development of Nigeria's banking sector. A mixed-method design was used in his research, which included both primary and secondary data. The primary data were gathered through a questionnaire distributed to a random sample of deposit money bank employees, and the secondary data were gathered from the annual reports of nineteen (19) Nigerian deposit money banks. According to Yinusa, the primary data was examined using the partial least squares path modeling method, while secondary data was examined using multiple least square and general least square regression in Stata (2018). He reveals that the findings of his research using both methods show that structural capital has a significant and positive effect on banks. As a result, the researcher

concludes that policymakers in the banking sector regard Intellectual Capital and its components (Human and Structural capital) as an important business resource.

Luo (2014) investigated the relationship between financial liberalization and bank development. The author aimed to examine find the effect financial liberalization on banking sector effectiveness. He used statistical techniques such frontier estimation methods, regressions, and Granger causality to develop his model. His study indeed covered data from bank scope and economic data at country level for a sample of 1536 commercial banks covering 88 countries over the period 2000 to 2009. The result of the study showed that financial liberalization contributes positively to profit efficiency while the impact on cost efficiency is generally mixed. Moreover, the researcher said that for the influence of risk in banking, the result suggested that financial liberalization, lower cost efficiency and higher profit efficiency of banks increase the potential for default risk. Additionally, the author mentioned that greater competition in banking contributes to higher cost but lower profit efficiency of banks under financial liberalization.

Ekata (2011) studies the impact of investment in information technology (IT) and on the financial performance of the Nigerian bank. In his research, IT investment and financial performance data were collected on 21 of the 24 commercial banks in Nigeria for 2005 through 2009 period. The researcher claims that his result of quantitative correlation design study shows a positive significant association between IT expenditure and return on assets (ROA) while his research found no correlations between IT expenditure and net income or return on equity (ROE), between IT budget and net profit, and between IT training cost and net profit. He concluded that there's an existence of paradox in IT productivity in the banking sector of Nigeria.

Demetriades and Fielding (2011) studied the effect of data on banking sector development in West Africa. They identified the determinants of individual banks' loans and assets in some west African countries. Their study affirmed that higher loan default rates decrease both the

loans to asset ratio and the volume of assets. They revealed that the scale of those impacts is sensitive to bank age and ownership structure because younger, private, domestically owned banks are most plagued by the informational disadvantages compared to the mature government-owned banks.

Kamau (2011) examined the intermediation efficiency and productivity of the banking sector in Kenya. The author made a non-parametric Data Employment Analysis (DEA) live the intermediation efficiency and employed and Malmquist Productivity Index (MPI) to investigate the productivity of the banking sector in Kenya. The survey concludes that banks weren't fully efficient while they perform fairly and suggests that they will be more productive by improving their technology, skills and spreading their scale of operations. Additionally, the paper claimed that policies favoring competition, product diversification, risk minimization through increased capital regulation, and privatization of some banks are essential.

Kessy (2007) analyzed the connection between bank efficiency and the economic process of the geographical region Community (EAC) countries. The study covered the banking sector in East African countries from 1994 to 2005 by employing quantitative and qualitative aspects. Firstly, the author evaluated bank efficiency by using the Data Envelopment Analysis model, then he used efficiency scores to look at the impact of a well-functioning financial setup on economic development. According to him, the empirical analysis of the connection between financial set-up efficiency and economic growth is predicated on an equation relating GDP growth to bank efficiency scores and credit to the private sector. The results of the study affirmed that commercial banks' credit to the non-public sector is statistically significant meaning that credit allowed to the non-public sector by banks has a positive effect on the economic expansion. Moreover, the researcher suggested that commercial banks' efficiency is positively related to both the common capital productivity and level of savings, also he affirmed that these intermediate variables are positively and statistically associated with GDP growth.

3. Macroeconomic Condition in West Africa

Africa is one of the world's largest and most populous continents, with a land area of 30.3 million square kilometers and a population of 1.3 billion people in 2018. Due to high natality, the population of Black Africa continues to grow at a rate of 2.7 percent per year. Children under the age of 25 account for 62 percent of the population, compared to 44 percent in developing countries overall and 27 percent in developed countries (WDI, 2020). As a result, Africa may be a young continent with numerous growth opportunities. Its population increased nearly fivefold between 1960 and 2020, compared to 2.7 times for Asia and three times for geographic region, and it now accounts for 16% of the world's population, up from 7% in 1960.

West Africa is a vast and diverse continent. According to the European Investment Bank, it is made up of the West African Economic and Monetary Union (WAEMU, which includes Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal, and Togo) and eight other countries (Cabo Verde, Gambia, Ghana, Guinea, Liberia, Mauritania, Nigeria, and Sierra Leone) (2020). These countries form the Economic Community of West African States (ECOWAS). It is a political and economic union that groups fifteen countries located in geographic region of West Africa (ECOWAS, 2016). Funded in 1975, the Union mission is to develop economic and political cooperation between States. In line with UN projections, the region’s population is predicted to succeed in 550 to 600 million in 2050. Moreover, with 5% of the world’s population and a neighborhood covering 40% of geographic region, it's the foremost densely populated continent.

According to the European Investment Bank, West Africa is an economically diverse geographical region with four middle-income and twelve low-income countries (2020). Some are rich in natural resources; for example, Nigeria, the region's largest economy, is the world's eighth-largest oil producer, while Ghana is one of the world's leading gold exporters, according to the EIB (2020). Other countries have enormous agricultural potential, such as Mali, which is one of the world's largest supplier of cotton.

In recent years, economic development has reflected the region's diverse economic structures and, as a result, varying degrees of oil dependency. Nigeria was on the verge of emerging from an economic slump in 2017, owing primarily to rising oil prices, whereas Ghana was able to record a sharp increase in the rate of growth after a two-year slowdown. Furthermore, the economic process within the West African WAEMU, which includes former French colonies, has remained strong, with a nearly 6-percentage-point increase for the sixth year in a row (EIB, 2020).

The region's diversification is due to its colonial history. Indeed, it brings together West African Monetary Union (WAEMU) member countries Benin, Burkina Faso, an African country, Guinea-Bissau, Mali, Niger, Senegal, and Togo, which are ex-French territories with a common currency, and countries colonized by the British Empire. In 2019, the population of the geographical region totaled 392 million people, with 201 million of them residing in Nigeria (EIB, 2020). In 2019, the estimated GDP per capita was USD 5,497 (in Purchasing Power Parity, PPP), ranging from US$1,106 in Niger to US$6,055 in Nigeria. On the availability front, West African economies are entirely based on services, which account for 55% of GDP (EIB, 2020). Industry contributed 23% of GDP, while agriculture contributed 22%. In terms of demand, consumption accounts for 86% of GDP, while investment contributed 18% and net exports contributed 4%. (EIB, 2020).

The banking system within the geographic area accounted for 142 establishments by the year 2018 against 138 establishments in 2017 consistent with the EIB (2020). The expansion in GDP has favored the growth of the banking network constantly. The number of agencies increased by 14.1% to achieve 3396 in 2018, plus the ATMs increased by 9.9% yearly to achieve 2,976 (EIB, 2020). Additionally, the banking sector total assets increased by 6.8% from 2017 to 2018 to achieve 57.6 billion euros according to the EIB (2020). Earnings and profitability ratio estimated by ROA and ROE show the financial soundness of the African banking sector. According to the IMF (2021), the average ROA was estimated at 1.3 percent

and ROE at 15.3 percent in 2019. In fact, the high ROE of African banks is supported by high banking margins supported by high interest rates (Mckinsey and Co, 2021). In addition, the banking sector in Africa is very liquid with average liquid assets to total assets of 26% in 2019 and 24 % in 2020 (IMF, 2021).

In 2018, the WAEMU banking sector was made up of 29 international and regional banking groups. These groups dominate banking activity in the region, accounting for 86.8 percent of total banking assets and 83.4 percent of customer bank accounts (EIB, 2020). As shown in table 1, the banking market is highly concentrated, the ECOBANK; and BMCE Bank of Africa groups are the largest, with market shares of percent and 10.1 percent of total assets, respectively (EIB, 2020). In addition, eight largest African banking groups detain 64% of total market share (table 1).

The banking sector in Nigeria constitutes 25 deposit banks, four are foreign banks, which hold nearly 13% of the overall assets of the complete banking sector (IMF, 2019). The banking sector in Ghana is more fragmented and comprises 34 banks, the highest three banks holding nearly 41% of all operating assets and 42% of deposits (EIB, 2018). Nigeria and Ghana have relatively large and complex financial sectors. Systemic crises are averted in recent years, illustrating the nice resilience of the banking sectors and the effectiveness of the proactive actions implemented by central banks. However, following the slump that occurred over the 2014-2016 period thanks to fall in oil prices, the financial sectors faced series of challenges. Overall, the financial soundness indicators associated with capital adequacy and asset quality have deteriorated in both countries since 2014 and number of other banks are subject to enhanced supervision or perhaps placed under supervision. In both countries, deposits are the most source of financing, representing about 60% of total liabilities (EIB, 2018).

Table 1. Major West African Banking Groups

Group	Presence in countries	Market share (%)	Number of agencies	Number of accounts
Ecobank (ETI)	8	15.3	225	1,131,339
Société Général	4	11.2	129	524,584
Bank of Africa Group	6	10.1	145	573,827
Ajariwafa Bank	4	8.7	210	571,078
BNP Paribas	7	7	176	362,658
ABI (Ex-AFG)	4	6.2	81	442,144
United Bank for Africa	4	3.3	59	212,941
BSIC	7	2.4	73	68,649
Total		63.9	1098	3,887,720

Source: European Investment Bank (2020)

3.1 Empirical Research

The methodology is consisted of two important elements in this survey, specifically the sample and data collection variables and their indicators. Empirical models for the analysis of key results are also provided in this section. The design of this research is aiming to analyze whether the financial efficiency of banking sector in west Africa has an impact on the economic growth in the region. In the study, we employ quantitative research approach and use secondary data to satisfy the research objectives. Thus, banking institutions are key actors in African economy, and to verify whether their performances affect growth may be relevant for different economic agents. In the research, we will mainly investigate the effect of banking sector financial efficiency on the economic growth in West Africa. The study covers 14 country members of the ECOWAS over the period 2010 to 2017 giving rise to 122 observations. To conduct our survey, we apply the Generalized Method of Moments (GMM). The advantages of using the GMM are multiples because it is compatible with dynamic panel models, control heteroscedasticity and potential endogeneity (independent variables that are not strictly exogenous), and autocorrelation within panel or group. Our model is a dynamic panel data of 14 countries extracted from the world development indicators (2020).

Based on the main objective of this research, the following hypothesis has been tested: H1: Banking sector financial efficiency in the Economic Community of West African States expressed by Return on Asset (ROA), Return on equity (ROE), and Net Interest Margin (NIM) has significant effect on the economic development of the region measured by the gross domestic product (GDP) growth rate. The variables used in our assumption are measures used by the World Bank to express the efficiency of financial institutions at country level. The result suggests that the probability value (p-value = 0.0002) corresponding to the variable (ROE) is less than 1%, so the variable (ROE) is significant at 1 percent level, and the sign of its coefficient is positive which corresponds to the expected sign. Therefore, there is a positive impact of the Return on Equity on economic growth. This positive relationship can be explained by the fact that the capital base for the banking sector is different than other corporations. They have more incentives to concentrate on managing capital, thus the high rate of returns of African banks demonstrates the efficient management of capital.

In Addition, the probability value of the variable (NIM) shows that there is a statistically significant positive relationship between this independent variable and the Gross Domestic Product (GDP) growth at 5 percent significant level (p-value = 0.048 < 0.05). The financial indicator of (NIM) is the difference between interest revenue and interest expense, on average earning assets. The high interest rate margins reflect the disincentive cost of credit in Africa, which is due to a combination of factors, including the small size of the market. Thus, the NIM is a solid financial rentability and profitability indicator of the banking sector. In this survey, the result suggests that the high rate of the variable (NIM) stimulates the economy expansion. This can be explained by the level of credit allowance of banks to the economy. In fact, the West African region contains major projects such as development in infrastructures that are mainly financed by banks. Therefore, the positive relationship between the variables (NIM and GDP) is due to the important role of the banking sector in financing major economic activities. Moreover, the return on asset (ROA) variable has a positive influence on GPD growth rate at a significant level of 1% (p-value < 0.01) with a coefficient

2.47. Among all the explanatory variables, bank return on asset has the most important effect on economic growth. The result demonstrates the optimal use of bank assets, the banking sector in West Africa is profitable and contributes to economic expansion.

Table 2. Test Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP(-1)	0.198265	0.024923	7.955183	0.0000
NIM	0.191316	0.095155	2.010577	0.0477**
ROA	2.471291	1.201398	2.057013	0.0000***
ROE	0.265639	0.163544	1.624264	0.0002***

****Significant at 1% level, ** Significant at 5% level, * Significant at 10% level*

Since our model is estimated by Generalized Method of Moments (GMM), the Arellano-Bond test is necessary to test the serial correlation. The test is consisted of two statistics, one for first order correlation (AR(1)), and one for second order correlation (AR(2)). In this case we expect the first order (AR(1)) statistic to be significant and the second order (AR(2)) statistic to be insignificant. The result of the serial correlation test shows that the first order statistic is significant (p-value = 0.000), while the second order is statistic is not significant (p-value = 0.332). This suggest that our expectation is met, and the model error terms are serial uncorrelated in levels.

Table 3: Arellano-Bond Serial Correlation Test

Test order	**m-Statistic**	**rho**	**SE(rho)**	**Prob.**
AR(1)	-5.073939	-763.734250	150.520963	0.0000
AR(2)	-0.969046	-707.723357	730.329727	0.3325

Table.4 denotes the summary of descriptive statistics of our variables. The GDP variable has a mean of 4.86 and a maximum value of 20.71. This implies that the average growth rate in the ECOWAS region is 4.86 percent. In addition, the means of ROA, ROE, and NIM are respectively 2.12 percent, 16.76 percent, and 5.99%. The highest value of ROE (95.10%) and GDP growth rate are both connected to Sierra Leonne. Indeed, the country have experienced an economic boost recently from severe recession in 2015. The table also shows that our variables are not normally distributed. The decision criteria for Jarque-Bera is: (p-value > 0.05 for null hypothesis (Normal Distribution) and p-value < 0.05 for non-null hypothesis (Non-Normal Distribution). In addition, the Skewness and Kurtosis results demonstrate that all the variables are not normally distributed.

Table 4: Descriptive Statistics

Variables	**GDPG**	**ROA**	**ROE**	**NIM**
Mean	4.859967	2.116198	16.79176	5.989097
Median	5.382500	1.974160	16.08000	4.778535
Maximum	20.71577	9.663920	95.10100	21.43420
Minimum	-20.59877	-3.769060	-32.95120	1.162210
Std. Dev.	4.368862	1.767879	13.46648	3.551930
Skewness	-1.508308	0.305705	1.404750	1.456380
Kurtosis	13.81240	6.409249	14.11754	5.652688
Observations	112	112	112	112
Jarque-Bera	588.0372	55.98508	613.6338	72.43100
Probability	0.000000	0.000000	0.000000	0.000000

Since our model contains time series, we must examine their stationarity. If the initial series is not stationary, this condition should be verified for the first and possibly second difference. In this case we checked the condition unit root at level and first difference. A series is said to be stationary if it has no trend, no seasonality, and, moreover, no factor that changes over time. Only stationary series allow for reliable econometric forecasting.

Table 5: Arellano-Bond Serial Correlation Test

Variables	p-value	Statistic	Critical Value at 5%
GDP	0.0086**	-1.60512	-2.862186
ROA	0.0009**	-1.98854	-2.862274
ROE	0.0098**	-1.60384	-2.864212
NIM	0.9715**	1.88732	-2.863919

The acceptance of the null hypothesis states that the common unit root exists, according to the Augmented Dickey-Fuller (ADF) test method. The acceptance of the alternative hypothesis, on the other hand, states that there is no unit root. To determine whether there is stationarity or non-stationarity, we verify if the probability is less than the chosen significance level (5 percent in our case). The ADF test shows that all variables are stationary at the significance level of 5% except the Net Interest Margin (NIM).

4. Conclusion

The spirit that prevailed throughout this work was to show the role of banking system financial efficiency on economic growth in the ECOWAS area. We reviewed the literature on banking performance and the role of banking institutions on economic development all around the

world. To verify our hypothesis, we have collected data which are of secondary source, from the annual publication of the World Bank, more precisely in the book of world development indicators and we did an econometric study that involved testing a model from the E-Views software trough Generalized Method of Moments (GMM) technique. The choice of profitability indicators to measure bank efficiency is inspired by the Word Bank measurement of financial institutions efficiency at country level.

The main goal was to analyze whether the independent variables estimated by ROA, ROE, and NIM have any impact on the economic growth in ECOWAS area. The result shows that among the explanatory variables, only Return on Asset (ROA) has a significantly statistically impact on the GDP growth rate meaning that Return on Asset of the banking sector in ECOWAS area affects the economic growth positively in the region. However, Return on Equity (ROE) and Net Interest Margin (NIM) has no significant impact on the GDP growth rate statistically at a confidence level of one percent (1%).

The model estimated is a dynamic model that experienced a stationarity test to see the significance of the variables. It follows that all the variables are significant. Moreover, the results show that the financial indicators corresponding to bank efficiency have a positive effect on growth. The existence of an efficient financial system is conditioned to some prerequisites: macroeconomic stability, a range of diversified financial products, and effective enforcement of legislation and regulation and a properly functioning asset registration system. Access to information and its transparency are also essential to filtering costs and prevent an anti-selection phenomenon. The research shows that banking groups in Africa tend to prefer the assets of large companies and states to minimize risks. In addition, because of the lack of information on creditors and the fear of failures, the financial system is atomized, with a large part of the population unable to access financing.

The financial system is one of the foundations of economic development. To ensure that the available resources are mobilized and distributed effectively between the different actors, the

well-functioning of the banking sector must be subject to appropriate regulation and open to a wider range of instruments and services. The study suggest that a more efficient banking system increases the level of economy activity. However, we did not consider the cost-to-asset ratio in this survey which is higher in Africa compared to the global average. In fact, the effect of this ratio on the profitability and efficiency of banks is mitigated by high interest rates but the cut in rates due to the pandemic will affect adversely interest margins for African banks. Therefore, African banks should increase their operating efficiency in order to maintain their profitability and efficiency.

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