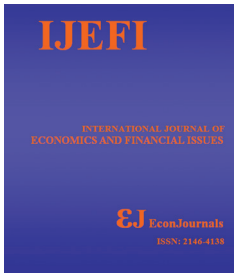

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The Impact of Financial Inclusion on Economic Growth based on East, West and Southern Africa

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ABSTRACT

Financial inclusion plays a critical role in promoting economic growth. We conducted an empirical study to investigate the relationship between financial inclusion and economic growth in East, West, and Southern Africa. The study goes from 2009 to 2021, using a unique econometric method known as fully modified ordinary least squares. The results of the impact of financial inclusion on economic growth based on all countries, in all the models estimated, show that financial inclusion has statistically significant effects on economic growth. The research sample is separated into two groups according to the income. Financial inclusion has a positive impact on economic growth in high-income countries. Similarly, the study demonstrates that financial inclusion positively affects economic growth in low-income countries. Financial inclusion is a strategy that is now being utilized in sub-Saharan Africa to stimulate economic growth. National education policies should incorporate financial education, covering fundamental principles like savings, investment, risk, interest, credit, and banking. Policymakers should also educate students about the benefits of having a bank or mobile money account. To attract foreign investment, legislative proposals should improve the business climate, infrastructure, institutions, fiscal policies, rule of law, and corruption. Public authorities should collaborate with banks to establish favorable interest rates for rural investors.

Keywords: Financial Inclusion, Economic Growth, West, East, Southern Africa
JEL Classification: G21, E32

1. INTRODUCTION

Economic growth is a multifaceted concept influenced by various factors. It can be viewed as a dynamic process driven by entrepreneurs within competitive markets, where equilibrium conditions lead to steady states characterized by factors like employment, investment, and technical productivity (Aghion and Howitt, 2009). It involves understanding growth theories like the neoclassical, AK, product variety, and Schumpeterian models. Additionally, economic growth is influenced by human interactions in trade, capital flows, and knowledge exchange, impacting institutions and finance (Valdés, 1999).

As revealed by many studies, financial inclusion plays a crucial role in influencing economic growth (Obstfeld, 1994; Kabikissa, 2020; Sene et al., 2023; Segning et al., 2024). The research conducted by Ayu Az Zahra and Ajija in 2023 demonstrated that several aspects of financial inclusion, such as the savings ratio per Gross Regional Domestic Product and third-party funds, have a significant positive impact on inclusive economic growth. The primary objective of financial inclusion is to enhance the economic well-being of unbanked individuals at the base of the pyramid by providing affordable and reasonable financial services, as stated by Sophia et al. in 2023.

Financial inclusion is crucial for boosting the economy and improving daily financial management. It helps reduce the growth of non-formal sources of credit, such as money lenders, who often exploit people, as pointed out by Sophia et al. in 2023. In this study, we aim to extend the existing literature on financial inclusion

by analyzing its impact on economic growth in East, West, and Southern Africa. These three regions are Africa's most financially inclusive areas, as shown by Saïdane in 2015. Our study proposes a robust approach to measure the relationship between financial inclusion and economic growth in these regions.

In our study, we have structured the plan into five sections: Introduction (section 1), literature review (section 2), methodology (section 3), results (section 4), and conclusion (section 5).

2. LITERATURE REVIEW

2.1. The Research on the Outcome of Financial Inclusion

Financial inclusion is a crucial factor in reducing poverty and promoting shared prosperity, as stated by the World Bank in 2024. According to Asare and Hongli's research in 2020, financial inclusion has a positive impact on poverty alleviation in West Africa. However, adverse effects can be observed when considering the number of commercial banks. Atchi's study in 2022 revealed that a 1% increase in financial inclusion can lead to a 3.5% decrease in the multidimensional poverty index, particularly in women and urban areas. Furthermore, Álvarez-Gamboa et al. in 2021 found that financial inclusion has a positive effect on poverty alleviation in Ecuador. Finally, Park and Mercado's research in 2015 showed that factors such as per capita income, rule of law, and demographic characteristics significantly impact financial inclusion in developing Asia.

The relationship between financial inclusion and carbon emissions has become an increasingly important topic due to the growing awareness of the negative impacts of climate change on the environment and human health (Hussain et al., 2023; Farzana et al., 2024; Kaplan et al., 2024). In 2020, Le et al. conducted a study that investigated the influence of financial inclusion on carbon dioxide (CO_2) emissions using a dataset of 31 Asian nations from 2004 to 2014. The study found that there is currently no correlation between the expansion of financial inclusion and the reduction of CO_2 emissions. Zaidi et al. (2021) researched to explore the relationship between financial inclusion, energy consumption, carbon emissions, corruption, infrastructure, and economic growth. The study found a positive correlation between financial inclusion, energy consumption, and carbon emissions. Additionally, the study found that carbon emissions significantly impact corruption, infrastructure, and economic growth. Asif et al. (2022) investigated the influence of financial inclusion on CO_2 emissions in the BRICS nations. The study's outcomes indicated that more finance would result in higher CO_2 emissions. Zhou et al. (2023) examined the influence of digital financial inclusion on carbon emissions at the household level using panel data from 30 Chinese regions spanning from 2011 to 2020. The findings indicated that including digital financial services has a substantial and reliable impact on reducing household carbon emissions. This impact is primarily influenced by the extent of coverage and the level of digitization. Sabek et al. (2023) examined the dynamic connections between financial investments (FI) and CO_2 emissions in both developed and emerging nations. The study found that financial integration (FI) has a notable detrimental impact on CO_2 emissions in wealthy nations, but in underdeveloped countries, it has a notable beneficial impact on CO_2 emissions.

Financial inclusion has been found to have a positive impact on employment in developing countries according to various studies (Molefhi, 2019; Mehry et al., 2021; Sakanko, 2020). In Africa and non-oil-exporting Arab countries, financial inclusion has been found to have a negative and statistically significant impact on unemployment (Alshyab et al., 2021; Sun and Scola, 2023). In Botswana, the availability of bank branches, account ownership, and borrowing from commercial banks have a positive effect on short-term job creation, while outstanding deposits with commercial banks have a negative effect (Molefhi, 2019). In China, the integration of digital finance has been found to significantly improve the employment structure, leading to positive effects on depth, size, and digital aspects, and promoting employment in the urban private sector (Yang and Geng, 2022; Tang et al., 2023). In developing countries, financial inclusion increases employment by facilitating access to financial services, particularly loans, enabling business owners to start up and employ more unemployed people (Mehry et al., 2021). In West Africa, financial inclusion has a positive and statistically significant impact on employment as well as on economic growth (Fundji, 2024).

Financial inclusion has been found to have an impact on the profitability of banks, according to research conducted by Zheng et al. (2023). Ha and Nguyen (2023) have also discovered that financial inclusion can negatively affect the stability of banks in eight ASEAN nations between 2010 and 2020. However, implementing financial inclusion in an environment characterized by high-quality institutions can enhance this effect. Even in developed economies, financial inclusion is considered crucial, as per Kumar et al. (2022), although there is still a need to increase bank profitability through effective cost management, credit risk management, and scaling. Sedera et al. (2022) found that financial inclusion has a positive impact on bank profitability along three dimensions: access, availability, and usage. Erülgen (2023) also observed a positive correlation between financial inclusion and bank profitability in island banking sectors, with the deposit ratio being associated with the size of the bank. However, Yabuku and Musah (2024) noted that financial inclusion can have a negative impact on bank profitability in Sub-Saharan Africa, particularly in the period following the global financial crisis. It is widely acknowledged that stability in the banking sector has a positive effect on bank performance, while inflation has a significant positive impact on profitability. It is important to note that the relationship between profitability and economic growth is time-dependent.

2.2. The Research on the Influence Factors of Economic Growth

Zieba et al. (2022) researched the factors contributing to economic growth in underdeveloped nations. They found that both government expenditure and natural resource rents positively impacted the increase of per capita gross domestic product (GDP). However, the economic progress of these nations is hindered by increasing labour force participation and inflation. Saputra and Rusdi (2024) investigated the determinants of economic growth in Banten Province. Their findings revealed that labour force,

government expenditure, and unemployment were influential factors for the economic growth of the Banten Province. Çekrezi (2022) analyzed the influence of demographic and economic factors on the GDP per capita in Albania between 1990 and 2020. The study showed a strong positive correlation between the rate of fertility increase and the real interest rate and GDP per capita. Moreover, the population growth rate and GDP per capita had a significant negative correlation. In their study, Raphael and Carlos (2024) examined the factors that impact economic growth in Zambia and assessed the macroeconomic model. They identified several key factors that influence economic growth in Zambia, including the real interest rate, broad money, exchange rate, inflation, GDP, and the 5-year bond yield rate. Andrews et al. (2023) investigated the factors that were responsible for the growth of specific emerging economies that were recognised by the International Monetary Fund. Their research showed that the expansion of these countries' economies was significantly influenced by several factors, including agriculture, capital, air transportation, and the current account balance. These factors were shown to be beneficial. Health spending and domestic credit, on the other hand, had a negative impact on the GDP of the 19 emerging market (EM) nations that were selected.

2.3. The Impact of Financial Inclusion on Economic Growth

A descriptive analysis and the Auto Regressive Distributed Lag (ARDL) model were utilised by Kabikissa (2020) to investigate the impact of financial inclusion on Congo's economic growth. The results of their study suggest that financial inclusion has a significant and positive influence on the economic growth of Congo, particularly in the expansion of non-oil GDP. An empirical investigation was undertaken by Emara et al. (2021) to ascertain the relationship between economic growth, governance, financial inclusion, and Middle East and North Africa (MENA) region governance. Between 1990 and 2018, their research analysed annual data from 44 EMs and the MENA region using the General Moments Method. The analysis centred on many financial inclusion indicators, investigating in particular the ease of access to financial services for businesses and families. The results of the study indicate that there is a positive relationship between financial inclusion and the growth of GDP per capita in the countries analysed. By analysing data from 44 developing nations spanning the years 2004-2017, Marcelin et al. (2022) examined the macroeconomic ramifications of financial inclusion and bank ownership structure. Economic performance is enhanced by depositor accounts, convenient automated teller machine (ATM) access, and additional financial products and services, according to the findings. Kilimvi and Ezekweziri (2023) conducted a study to investigate the correlation between financial inclusion and the economic growth of Africa. Descriptive and correlational research designs were employed to clarify and examine this correlation. An examination of financial inclusion dimensions such as accessibility, penetration, and utilisation reveals a positive correlation between financial inclusion indicators and the overall economic growth of Africa, as indicated by the research findings. Applying the theory of financial growth to the period 1989-2020, Sophia et al. (2023) examined the impact of financial inclusion on Nigeria's GDP growth. Utilising the ARDL, secondary source data was analysed. The data indicates that commercial bank loans to rural areas exhibited a robust correlation with both short-term and long-term economic growth in Nigeria. Additionally, it illustrates how the number of bank branches in rural regions and the number of ATMs have a substantial impact on economic development in Nigeria. An examination of the correlation between economic development in Bhutan and financial inclusion was conducted contextually and was presented by Choden and Wangdi (2022). Principal Component Analysis was employed to produce a multidimensional index in the course of this investigation. The results of the study indicated a statistically significant positive correlation of 0.008 between the composite financial inclusion index and long-term economic growth, as determined at the 5% significance level. Akin to the short term, the correlation between FI and economic growth is marginally positive (0.36) but not statistically significant.

Based on the information presented above, renowned economists and policymakers have conducted research on financial inclusion. However, there is still a need for further investigation on this subject matter. The purpose of our study is to fill the current information gap and examine the impact of financial inclusion on the economic growth in East Africa, West Africa, and Southern Africa.

After conducting a thorough examination of the analysis provided above, we propose the following hypothesis:
H1: Financial inclusion has a positive impact on economic growth.

3. METHODOLOGY

This study aims to investigate how financial inclusion affects employment and economic growth in West, East and Southern Africa. To achieve this, we will be using a distinct data methodology called Fully Modified Ordinary Least Squares (FMOLS), which was introduced by Phillips and Hansen in 1990. The study will take a sampling period of 2009 to 2021 and adopt 9 variables described and summarized in Table 1.

The study will use panel data from 13 West African countries, namely Ghana, Nigeria, Côte d'Ivoire, Benin, Burkina Faso, Senegal, Gambia, Mali, Niger, Guinea-Bissau, Togo, Cape Verde, and Guinea. In addition, the research will include 7 East African countries: Kenya, Tanzania, Ethiopia, Rwanda, Burundi, Uganda, and Sudan. Furthermore, the study will cover 5 Southern African countries: Botswana, Namibia, South Africa, Zambia, and Zimbabwe. All of these countries are divided in Table 2 into 2 categories: high GDP per capita and low GDP per capita.

3.1. Model Setting

The regression model of the study is stated as follows:

$$GDP_{it} = \beta_0 + \beta_1 Cbb_{it} + \beta_2 ATM_{it} + \beta_3 Odcb_{it} + \beta_4 Olcb_{it} + \beta_5 FDI_{it} + \beta_6 Pse_{it} + \beta_7 Upg_{it} + \beta_8 Rpg_{it} + + \varepsilon_{it}$$

The statistics for the investigated variables are shown in Table 3, which may be seen here. There is a strong connection between

Table 1: Definitions of variables and data sources

	Variable	Description	Source
Dependent variable	GDP	GDP per capita (current US$)	WDI
Independent variables	Cbb	Number of commercial bank branches per 1000 km^2	FAS (MFI)
	ATM	Number of ATMs per 1,000 km^2	FAS (MFI)
	Odcb	Outstanding deposits with commercial banks (% of GDP)	FAS (MFI)
	Olcb	Outstanding loans from commercial banks (% of GDP)	FAS (MFI)
Control variables	FDI	FDI, net outflows (BoP, current USD)	WDI
	Pse	Primary school enrolment (% gross)	WDI
	Upg	Urban population growth (annual %)	WDI
	Rpg	Rural population growth (annual %)	WDI

GDP: Gross domestic product, ATM: Automated teller machine, FDI: Foreign direct investment

Table 2: List of countries and their categories

Categories	High GDP per capita		Low GDP per capita
1	Botswana	8	Benin
2	Cape Verde	9	Burkina Faso
3	Côte d'Ivoire	10	Burundi
4	Ghana	11	Ethiopia
5	Namibia	12	Gambia
6	Nigeria	13	Guinea
7	South Africa	14	Guinea Bissau
		15	Kenya
		16	Mali
		17	Niger
		18	Rwanda
		19	Senegal
		20	Sudan
		21	Tanzania
		22	Togo
		23	Uganda
		24	Zambia
		25	Zimbabwe

Table 3: Summary of descriptive statistics for study variables

Variable	n	Mean	Median	S.D	Min	Max
Cbb	169	4.800	1.951	7.590	0.070	32.258
ATM	136	8.150	2.909	12.439	0.100	51.613
Odcb	169	30.073	25.429	17.758	6.560	104.039
Olcb	169	20.837	17.012	12.720	1.437	65.013
LFDI	161	19.481	19.641	1.677	12.157	22.902
Pse	147	95.222	91.509	17.698	59.012	132.467
Upg	169	3.833	3.743	0.821	1.576	5.546
Rpg	169	1.619	1.761	0.907	−1.053	3.823
LGDP	169	7.019	6.782	0.581	6.128	8.276

the mean and median values of some variables, as indicated by the dataset. On the other hand, the degree of concentration of the variables around the mean values does not remain consistent across the standard deviation of the variables. According to Minitab (2023), the minimum value relates to the data point with the lowest value, while the maximum value corresponds to the single data point with the most significant value.

4. RESULTS

4.1. Impact of Financial Inclusion on Economic Growth

Table 4 displays the results of the impact of financial inclusion on overall economic growth. Our estimates show that in all the

Table 4: Impact of financial inclusion on economic growth

Variable	Model 1	Model 2	Model 3	Model 4
LCbb	0.064***			
	(11.007)			
LATM		0.030***		
		(2.732)		
LOdcb			0.391***	
			(53.144)	
LOlcb				0.246***
				(30.412)
LFDI	0.010***	0.003**	0.001**	0.004***
	(15.938)	(2.305)	(1.757)	(4.335)
LPse	−0.087***	0.397***	−0.324***	−0.203***
	(−4.602)	(10.718)	(−12.164)	(−8.096)
LUpg	1.381***	1.815***	0.247***	1.085***
	(32.580)	(20.407)	(3.917)	(18.963)
LRpg	−0.422***	−0.280***	0.118***	−0.254***
	(−18.231)	(−5.631)	(3.535)	(−8.287)
A-R squared	0.937	0.926	0.943	0.939

***Indicates the significance at 1%, **Indicates the significance at 5%

models estimated, the number of ATMs per 1,000 km^2 (LATM), the number of commercial bank branches per 1,000 km^2 (LCbb), outstanding deposits with commercial banks (% of GDP) (LOdcb), and outstanding loans from commercial banks (% of GDP) (LOlcb) all have positive and statistically significant effects on economic growth. Additionally, foreign direct investment (LFDI) (BoP, current USD) has a positive and statistically significant impact on economic growth. FDI plays a crucial role in employment, and an increase in FDI automatically leads to increased economic growth. In three of the four models estimated, the primary school enrolment rate (% gross) (LPse) has positive and statistically significant effects on economic growth. Furthermore, urban population growth (LUpg) also significantly affects economic growth. An increase in the urban population automatically leads to an increase in economic growth. All the models estimated show that growth in the urban population (LUpg) has a positive and statistically significant impact on economic growth. Regarding the rural population growth (LRpg), except for model 3, all the other models validate this variable's adverse and statistically significant effects on economic growth

4.2. Impact of Financial Inclusion on Economic Growth: Countries with High GDP per Capita

Table 5 presents the outcomes of the impact of financial inclusion on economic growth in countries with a high GDP per capita. The results of the estimates show that the number of commercial bank branches per 1,000 km^2 (LCbb), the number of ATMs per 1,000

Table 5: Impact of financial inclusion on economic growth in countries with high GDP per capita

Variable	Model 1	Model 2	Model 3	Model 4
LCbb	0.223***			
	(12.148)			
LATM		0.263***		
		(3.713)		
LOdcb			0.445**	
			(2.929)	
LOlcb				0.391***
				(3.753)
LFDI	0.096***	0.036	0.028	0.080**
	(18.056)	(1.614)	(0.860)	(2.470)
LPse	1.847***	1.262***	1.346***	1.419***
	(37.858)	(4.944)	(3.833)	(4.363)
LUpg	−1.108***	−4.798	−3.960***	−0.136
	(−6.241)	(−1.356)	(−2.768)	(−0.116)
LRpg	0.023	1.224	1.061*	−0.258
	(0.319)	(1.558)	(1.790)	(−0.550)
A-R squared	0.692	0.761	0.771	0.726

***Indicates the significance at 1%, ** at 5%, and *Indicates the significance at 10%

Table 6: Impact of financial inclusion on economic growth in countries with low GDP per capita

Variable	Model 1	Model 2	Model 3	Model 4
LCbb	0.060379***			
	(9.652492)			
LATM		0.024423***		
		(1.815606)		
LOdcb			0.386911***	
			(52.07859)	
LOlcb				(0.163)***
				(5.542)
LFDI	0.009***	0.0004	0.0002	0.007**
	(14.128)	(0.354)	(0.221)	(2.340)
LPse	−0.340***	−0.090*	−0.618***	−0.335***
	(−14.891)	(−1.826)	(−19.870)	(−3.316)
LUpg	1.779***	1.967***	0.533***	1.510 ***
	(39.875)	(18.555)	(8.239)	(7.385)
LRpg	−0.660***	−0.538***	−0.049	−0.487***
	(−24.587)	(−8.507)	(−1.300)	(−4.053)
A-R squared	0.910	0.891	0.918	0.910

*** Indicates the significance at 1%, ** Indicates the significance at 5%

km² (LATM), outstanding deposits with commercial banks (% of GDP) (LOdcb), and outstanding loans from commercial banks (% of GDP) (LOlcb) all have a positive and statistically significant influence on economic growth in all the estimated models. In addition, foreign direct investment (LFDI) (BoP, current USD) has a positive (models 1,2,3 and 4) and statistically significant (models 1 and 4) impact on economic growth. The primary school enrolment rate (% gross) (LPse) is also essential to economic growth, and an increase in the primary school enrolment rate (% gross) automatically leads to an increase in economic growth. All the estimated models indicate that the primary school enrolment rate (LPse) has a positive and statistically significant effect on economic growth. On the other hand, urban population growth (LUpg) has a negative role in economic growth, and a decrease in the urban population automatically leads to a decrease in economic growth. All the estimated models, except models 2 and 4, show that growth in the urban population (LUpg) has a negative and statistically significant impact on economic growth. Finally, regarding the rural population growth (LRpg), only one model confirms this variable's positive and statistically significant effects on economic growth

4.3. Impact of Financial Inclusion on Economic Growth: Countries with Low GDP per Capita

Table 6 shows the results of the impact of financial inclusion on economic growth in countries with low GDP per capita. Our estimations revealed that the financial inclusion variables such as the number of commercial bank branches per 1000 km² (LCbb), the number of ATMs per 1000 km² (LATM), outstanding deposits with commercial banks (% of GDP) (LOdcb) and outstanding loans from commercial banks (% of GDP) (LOlcb) all have positive and statistically significant effects on economic growth across all the estimated models. Regarding foreign direct investment (LFDI) (BoP, current USD), our findings showed that its impact on economic growth is positive in all models, but statistically significant only in models 1 and 4. However, primary school enrolment rate (% gross) (LPse) had a negative impact on economic growth. A decrease in the primary school enrolment rate (% gross) results in a decline in economic growth. All the models estimated showed that the primary school enrolment rate (LPse) has a negative and statistically significant impact on economic growth. In contrast, urban population growth (LUpg) is crucial to economic growth. An increase in the urban population leads to a boost in economic growth. All the models estimated showed that urban population growth (LUpg) has a positive and statistically significant impact on economic growth. Lastly, three of the four models validated the adverse and statistically significant effects of rural population (LRpg) on economic growth.

5. CONCLUSION

Financial inclusion is a crucial factor in economic growth. Our empirical research studied the relationship between financial inclusion and economic growth in East, West and Southern Africa. We analyzed panel data for 13 West African countries, 7 East African countries, and 5 Southern African countries, covering the period between 2009 and 2021. Our study used a unique econometric methodology called FMOLS to analyze the interactions between our variables.

According the results of our findings about the impact of financial inclusion on overall economic growth, the number of ATMs per 1,000 km² (LATM), the number of commercial bank branches per 1,000 km² (LCbb), outstanding deposits with commercial banks as a percentage of GDP (LOdcb), and outstanding loans from commercial banks as a percentage of GDP (LOlcb) all have positive and statistically significant effects on economic growth, as seen in all the estimated models.

In countries with a high GDP per capita, our estimates indicated that the financial inclusion variables have a positive and statistically significant effect on economic growth in all the estimated models. These variables include the number of commercial bank branches per 1,000 km² (LCbb), the number of ATMs per 1,000 km² (LATM), outstanding deposits with commercial banks (% of

GDP) (LOdcb) and outstanding loans from commercial banks (% of GDP) (LOlcb).

In countries with low GDP per capita, our estimates revealed that financial inclusion variables have a positive and statistically significant influence on economic growth in all models. These variables include the number of commercial bank branches per 1000 km^2 (LCbb), the number of ATMs per 1000 km^2 (LATM), outstanding deposits with commercial banks (% of GDP) (LOdcb), and outstanding loans from commercial banks (% of GDP) (LOlcb).

National education policies and curricula should integrate financial education, covering fundamental principles of financial literacy such as savings, investment, risk, interest, credit, budgeting, and banking. Policymakers should also educate students about the benefits of having a bank or mobile money account. Legislative proposals should prioritize improving the business climate, upgrading infrastructure, enhancing institutions, implementing sound fiscal policies, establishing the rule of law, and fighting corruption to attract FDI. Public authorities should collaborate with central and commercial banks to establish favourable interest rates, making it easier for rural investors to access credit.

REFERENCES

Aghion, P., Howitt, P. (2009), The Economics of Growth, RePEc. Cambridge: The MIT Press.

Alshyab, N., Sandri, S., Daradkah, D. (2021), The effect of financial inclusion on unemployment reduction - Evidence from non-oil producing Arab countries. International Journal of Business Performance Management, 22(2-3), 100-116.

Álvarez-Gamboa, J., Pablo, C.B., Hugo, J.E., (2021), Financial inclusion and multidimensional poverty in Ecuador: A spatial approach. World Development Perspectives, 22(C), 100311.

Andrews, A., Agrawal, Y., Pareek, D. (2023), Economic growth factors influencing emerging market economies. The Management Accountant, 58(4), 45-48.

Asare, V.S.P., Hongli, J. (2020), Financial inclusion and poverty alleviation: The contribution of commercial banks in West Africa. International Journal of Business, Economics and Management, 7(1), 57-70.

Asif, S., Zafar, A., Zahoor, U., Shahbaz, M., Auditor, S., Shahzad, A. (2022), Examining the impact of financial inclusion on CO_2 emission in BRICS: Evidence from panel data analysis. Res Militaris, 12(6), 2623-2636.

Atchi, K.F. (2022). Effet de l'inclusion financière sur la pauvreté multidimensionnelle au Togo. Revue Internationale des Economistes de Langue Française, 7(1), 197-214.

Ayu Az Zahra, D., Ajija, S.R. (2023), The effect of financial inclusion on inclusive economic growth in Indonesia. JIET (Jurnal Ilmu Ekonomi Terapan), 8(1), 185-196.

Çekrezi, A. (2022), Factors that influence economic growth: Empirical evidence from Albania. Wseas Transactions on Business and Economics, 19, 1403-1412.

Choden, T., Wangdi, D. (2022) Empirical Relationship between Financial Inclusion and Economic Growth. Bhutan: Department of Macroeconomic Research and Statistics, Royal Monetary Authority of Bhutan.

Emara, N., El Said, A. (2021), Financial inclusion and economic growth: The role of governance in selected MENA countries. International Review of Economics and Finance, 75(C), 34-54.

Erulgen, A., Rjoub, H., Adalier, A., Abualrub, A. (2023), Financial inclusion and bank profitability: Evidence from Island banking sector. Advances in Decision Sciences, 26(4), 78-97.

Farzana, N., Qamruzzaman, M., Mindia, P.M. (2024), Interplay of digital financial inclusion, technological innovation, good governance, and carbon neutrality in the top 30 remittance-receiving countries: The significance of renewable energy integration. International Journal of Energy Economics and Policy, 14(4), 408-425.

Fundji, O.J., (2024), The impact of financial inclusion on employment in West Africa. International Journal of Current Research, 16, (3), 27510-27515.

Ha, D., Nguyen, Y. (2023), Institutional quality's influence on financial inclusion' impact on bank stability. Cogent Economics and Finance, 11(1), 2190212.

Hussain, S., Akbar, M., Gul, R., Shahzad, S.J.H., Naifar, N. (2023), Relationship between financial inclusion and carbon emissions: International evidence. Heliyon, 9(6), e16472.

Kabikissa, J.D., (2020), L'incidence de l'inclusion financière sur la croissance économique au Congo. Revue Congolaise de Gestion, 1(29), 14-60.

Kaplan, M., Rahman, M.M.A., ul-Islam Khan, A., Vergil, H. (2024), The triple impact of innovation, financial inclusion and renewable energy consumption on environmental quality in some emerging economies. International Journal of Energy Economics and Policy, 14(4), 140-149.

Kilimvi, A.S., Ezekwesiri, A.S. (2023), Impact of financial inclusion on economic growth of African countries. American Journal of Accounting, 5(1), 15-33.

Kumar, V., Thrikawala, S., Acharya, S. (2022), Financial inclusion and bank profitability: Evidence from a developed market. Global Finance Journal, 53(C), 100609.

Le, T.H., Le, H.C., Taghizadeh-Hesary, F. (2020), Does financial inclusion impact CO2 emissions? Evidence from Asia. Finance Research Letters, 34(C), 1-7.

Marcelin, I., Egbendewe, A.Y.G., Oloufade, D.K., Sun, W. (2022), Financial inclusion, bank ownership, and economy performance: Evidence from developing countries. Finance Research Letters, 46(PA), 102322.

Mehry, E.B., Ashraf, A., Marwa, E. (2021), The impact of financial inclusion on unemployment rate in developing countries. International Journal of Economics and Financial, Issues, 11(1), 79-93.

Minitab. (2023), Interpréter Toutes Les Statistiques Pour Stocker des Statistiques Descriptives. Available from: https://support.minitab.com/fr-fr/minitab/21/help-and-how-to/statistics/basic-statistics/how-to/store-descriptive-statistics/interpret-the-statistics/all-statistics

Molefhi, K. (2019), Financial Inclusion and its Impact on Employment Creation in Botswana. Working Papers 60, Botswana Institute for Development Policy Analysis.

Obstfeld, M. (1994), Risk-taking, global diversification, and growth. American Economic Review, 84(5), 1310-1329.

Park, C.Y., Mercado, R.V. Jr. (2015), Financial inclusion, poverty, and income inequality in developing Asia. Singapore Economic Review, 63(1), 185-206.

Phillips, P.C.B., Hansen, B.E. (1990), Statistical inference in instrumental variable regression with I (1) processes. Review of Economic Studies, 57(1), 99-125.

Raphael, M., Carlos, T. (2024), Analyzing factors affecting economic growth and evaluating the macroeconomic model in Zambia. Флагман науки, 11, 1-11.

Sabek, H., Samaan, C., Beshara, M., Fahmy, N., Shaqran, S., Anwer, B., Ibrahiem, D. (2023), Impact of financial inclusion on CO_2 emissions:

A comparative study of developed and developing countries (2004-2021). The International Journal of Public Policies in Egypt, 2(4), 197-221.

Saïdane, D. (2015), Les systems financiers d'Afrique du Nord. Techniques Financières et Développement, 4(121), 71-78.

Sakanko, M.A. (2020), Financial inclusion and women participation in gainful employment: An empirical analysis of Nigeria. Indonesian Journal of Islamic Economics Research, 2(1), 1-14.

Saputra, R.D., Rusdi., M. (2024), Analysis of factors affecting economic growth in Banten province. EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi Dan Bisnis, 12(1), 659-666.

Sedera, R.M.H., Risfandy, T., Futri, I.N. (2022), Financial inclusion and bank profitability: Evidence from Indonesia. Journal of Accounting and Investment, 23(3), 398-412.

Segning, B.A., Djiogap, C.F., Noupie, E.N., Mandiefe, S.P., Meli, S.D. (2024), Effet de l'inclusion financière sur la croissance économique en Afrique subsaharienne: Une analyse comparative suivant certains facteurs socioculturels. Revue Canadienne D'études du Développement, 45, 1-20.

Sene, M.M., Fall, A.N., Diouf, A., Sow, A. (2023), L'impact de l'inclusion financière sur la croissance économique au Sénégal. Revue Française d'Economie et de Gestion. 4, 12.

Sophia, U.C., Adesina-Uthman, G.A., Joshua, C.O., (2023), Economy impact of financial inclusion on economic growth in Nigeria. Journal of Arid Zone Economy, 2(1), 104-116.

Sun, Y., Scola, N. (2023), Examining the impact of financial inclusion on unemployment in Africa (a panel data analysis). Academic Journal of Research and Scientific Publishing, 5(51), 23-50.

Tang, T., Ran, G., Ran, X. (2023), Analyzing the effect of digital financial inclusion on urban private sector employment in China. Applied Economics Letters, 30, 1-5.

Valdés, B (1999), Economic Growth: Theory, Empirics and Policy. United Kingdom: Edward Elgar.

World Bank. (2024), Available from: https://www.banquemondiale.org/fr/topic/financialinclusion/overview

Yakubu, I.N., Musah, A. (2024), The nexus between financial inclusion and bank profitability: A dynamic panel approach. Journal of Sustainable Finance and Investment, 14(2), 430-443.

Yang, L., Geng Z., (2022), Impact of digital financial inclusion on optimization of employment structure: Evidence from China. Applied Economics, 54(57), 6625-6638.

Zaidi, S.A.H., Hussain, M., Zaman, Q.U. (2021), Dynamic linkages between Financial Inclusion and Carbon Emissions: Evidence from Selected OECD Countries. Journal of Resources, Environment and Sustainability, 4, 100022.

Zheng, C., Rahman, M.A., Hossain, S., Moudud-Ul-Huq, S. (2023), Does fintech-driven inclusive finance induce bank profitability? Empirical evidence from developing countries. Journal of Risk and Financial Management, 16, 457.

Zhou, Y., Zhang, C., Li, Z. (2023), The impact of digital financial inclusion on household carbon emissions: Evidence from China. Journal of Economic Structures, 12, 2.

Zieba, M., Thi-Kieu-Trang, D., Mbugua, R.N, (2022), Factors affecting economic growth: empirical evidence from developing countries. OSF Preprints jm7h4, Center for Open Science.