FDI and economic growth nexus: An empirical assessment of ECOWAS countries

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ABSTRACT

This study evaluated the effects of FDI on ECOWAS economic growth in ECOWAS countries through time series data between 1990 and 2023. In its assessment, the ARDL approach was employed with the following results: the study found that FDI creates a considerable direct relationship with economic growth. Similarly, economic expansion goes hand in hand with open trading operations. The inflation rate shows a minor negative relationship with the economic expansion rate. The relationship between manufacturing value added shows positive and beneficial impacts on economic growth. The population growth rate shows both positive and considerable effects on economic growth in ECOWAS countries. This scholarly research recommends that policymakers throughout ECOWAS should establish programs to drive FDI inflows into their countries because such measures will create meaningful sub-regional economic growth. The research suggests that ECOWAS lawmakers should implement measures to enhance manufacturing sector growth, which will boost productivity levels while creating jobs for achieving sustainable economic expansion in their nations.

Contribution/ Originality: Past studies analyzing the effects of FDI on economic growth in ECOWAS territories have suffered from two major shortcomings because most investigations relied on national statistical data, and several others focused on individual countries. Measurements at the national level fail to show the complete impact of FDI on economic progress within the ECOWAS subregion. Therefore, this study fills the existing gap in the literature by providing empirical information regarding FDI and economic growth in ECOWAS countries.

1. INTRODUCTION

Developing nations devote their maximum effort to attract foreign direct investment because every sector, including real and financial, needs to contribute to achieving this ambitious goal according to Babarinde (2020). All emerging nations strive for economic growth as their essential forward objective. In view of this, ECOWAS established itself as a sub-regional group on May 28, 1975, when it initiated its mission to advance economic integration throughout the area. FDI stands out as a promising method to bridge investment funding gaps when companies fall short of internally accumulating enough funds for their anticipated projects. FDI generates welfare benefits and job opportunities at three levels through its impact on physical capital development, productivity growth, and technology transfer and managerial expertise sharing (Aderemi, Omitogun, & Osisanwo, 2022; Liang, 2017).

However, experts and academics currently debate whether economic growth in the ECOWAS subregion remains associated with FDI in modern times. Economic growth patterns caused by FDI, especially within the ECOWAS region, form the core research question of this study. This is because FDI growth in this subregion of Africa has

increased in recent times, yet numerous studies continue to disagree about the specific relationship between FDI and regional economic growth. Waliu, Yusuf, El Moctar El Houssein, and Hassan (2020) documented an opposite relationship between FDI and economic growth within the ECOWAS subregion. The research by Alege (2013) revealed that there is a positive relationship between FDI and economic growth, but Awe (2013) stressed the negative influence between FDI and economic growth. Different studies have established either beneficial relationships or adverse relationships, and some studies found no such relation exists. Studies on FDI and economic growth have failed to produce clear findings that direct research. Scholarly research about the connection between FDI and economic growth remains unclear in the existing literature.

Past research analyzing ECOWAS territories has suffered from two major shortcomings because most investigations relied on national statistical data, and several others focused on individual countries (Awe, 2013; Kolade, 2019; Aderemi et al., 2019; Amoyele et al., 2021). Measurements at the national level fail to show the complete impact of FDI on economic progress within the ECOWAS subregion. The present research studies FDI's direct relationship with economic growth in ECOWAS nations based on modern data sources and control parameters beyond those explored in existing studies. This research intends to feature empirical findings through a deeper understanding of the relationship between FDI and economic growth. The study investigates how FDI influences economic growth across member states of ECOWAS. This investigation deployed panel data analysis as its quantitative method to answer the research question, although previous works followed different approaches.

2. LITERATURE REVIEW

During the years spanning from 1990 to 2019 (Aderemi et al., 2022) conducted research on the effect of FDI inflows on job creation throughout the ECOWAS subregion. The study employs a panel ARDL model to analyze FDI-employment relationships across the entire ECOWAS subregion both in the short run and the long run. The analysis demonstrates that FDI creates negative employment effects in the short run but establishes substantial positive impacts on the employment rate in the long run.

Elhadji (2022) analyzed the impacts of foreign direct investment on the international trade patterns of West African Economic and Monetary Union participants. Between 2000 and 2015, the research analyzed dynamic panel data from eight WAEMU nations. The investigation demonstrated that foreign direct investment delivers beneficial outcomes that substantially boost the foreign trade sector of WAEMU member states. Using data from 2000-2015, Nguyen (2022) evaluated how financial development assists foreign direct investment in boosting economic growth. Threshold effects, together with system GMM procedures, serve as the analytical tools in this investigation to estimate the research models. The results show that beyond the specified threshold of financial development, FDI creates greater additional impacts on economic growth. The research conducted by Aromasodun (2022) examined the factors that determine foreign direct investment (FDI) entry into West Africa. The study applied both unit root tests along with Kao co-integration analysis and the panel ARDL regression approach. The research established that while trade openness measures and governance indicators, together with corruption control, contribute positively to regional FDI investments, financial development creates negative impacts on FDI flow amounts.

Osabohien, Iqbal, Osabuohien, Khan, and Nguyen (2022) study how agricultural trade, together with FDI, contributes to inclusive growth among emerging nations in ECOWAS. This research employs Principal Component Analysis (PCA) and Two-stage Least Squares (2SLS) to address possible endogeneity issues when estimating inclusive growth. The examined data show that agricultural trade plays an essential role in defining inclusive growth, while FDI does not impact measurements of inclusive development.

Babarinde (2020) researched how foreign direct investment, together with financial depth, impacted Nigerian economic growth during the period from 1981 to 2018. Researchers utilized the autoregressive distributed lag (ARDL) method to estimate the data and performed the pairwise Granger causality test on it. Research outcomes established positive and significant relationships between foreign direct investment (FDI) and financial development,

as measured by Gross Domestic Product (GDP), both in the short and long terms in Nigeria. Researchers verified that FDI creates one-way causal effects leading to GDP. The study confirms that international direct investments, along with enhanced financial depth, generate growth outcomes for Nigeria's economy. The Nigerian government needs to sustain its investment in financial system development and create strategies to attract foreign direct investment if it wants to enhance national economic growth rates. Hammed, Shittu, Akanbi, Umar, and Abdulrahman (2020) studied West African economic growth through analyses of financial development, foreign direct investment, democracy, and political disturbances. The research analyzed secondary data from 11 sub-region nations during 1996-2016 through the application of the dynamic fixed effects approach. The analyzed data reveal minimal long-term correlations between West African FDI and economic development, although FDI brings a 0.26% rise in regional economic growth with every 1% increase in FDI.

Waliu et al. (2020) conducted research to determine the quantitative influence of globalization, political governance, and direct foreign investment on West African economic development. The researchers analyzed World Bank data together with KOF Institute data through the autoregressive distributed lag method. The results indicate that political governance, alongside globalization, produces positive effects on economic development. The authors of this paper demonstrated that FDI increases regional growth, and political governance enhances the beneficial FDI effects on West African economic development, despite inconsistent findings regarding FDI-growth relationships. Through his research, Kolade (2019) studied the economic development aspects of foreign direct investment in Nigeria. This study employs descriptive and regression analysis as its main estimating methods. The authors determined that foreign direct investment positively and significantly contributed to Nigeria's growth rate.

Using data from 1980 to 2015, Najeh and Ali (2019) studied how foreign direct investment affects the economic development of Tunisia. The authors utilized the ARDL (Autoregressive Distributed Lag) method to analyze how foreign direct investment relates to economic development in both the short and long term until 2015. Economic growth receives both long-term and short-term beneficial effects from FDI, according to the reported results. The research confirms that domestic investment and human capital produce significant positive effects on short-term economic growth compared to their effects in the long term.

The research of Victor, Anjande, Fefa, and Mile (2019) conducts an analysis of FDI and domestic investment growth-differential effects in 41 specialized African nations during the period from 1970 to 2017 by employing dynamic panel theories and pooled mean group (PMG) and mean group (MG) estimators. Research through the Hausman test demonstrated that the PMG estimator should be selected. The investigation states that African nations require both FDI and DI investments for their forthcoming development. The analysis reveals that FDI inflows force African domestic investment to decline but shows that domestic and foreign direct investment produce markedly different growth rates regardless of their combined impressive impact on national growth in Africa. The report emphasizes that local savings and investment should act as the core driving force for growth before African governments can consider FDI as a growth advancement measure.

Susilo (2018) studied the effects that foreign direct investment had on American economic development. The study depended on a multiple linear regression analysis with ordinary least squares procedures to estimate data. Evaluated data indicates that the economic growth of the United States arises from ten specific sectors. Multiple industries lead to positive economic growth in the United States, including manufacturing, wholesale and retail trade, real estate, and others; however, the professional, scientific, and technical industries do not contribute significantly to economic expansion. The insurance field, together with banking segments, is among the industries included. Hassan (2017) performed a study to analyze the connection between foreign aid and foreign direct investment toward the economic growth of the ECOWAS region. During the research investigation, the analyst implemented the Generalized Method of Moments (GMM) Estimator. Economic development in ECOWAS mostly relies on FDI because of existing research findings. Theodoros (2017) conducted studies aimed at expanding existing foreign direct investment research through investigations of different investment effects. Sub-Saharan nations experience increased

GDP growth because of foreign direct investment, based on findings using ordinary least squares fixed effects regression.

The research conducted by Igbinedion (2016) analyzed which aspects affect FDI activity in the ECOWAS area. This research study used the Generalized Method of Moments (GMM) in addition to conventional panels and panel Granger causality to analyze the variables impacting total FDI in ECOWAS. In conclusion, the research showed that ECOWAS member nations receive most of their FDI based on non-economic fundamentals, which include agglomeration economies and regime transitions, along with legal origin effects, in combination with economic fundamentals like market size, trade openness, and human capital.

The research conducted by Keho (2016) studied the relationship between FDI (foreign direct investment) and greenhouse gases, together with trade openness in ECOWAS nations. Yearly data spanning 1970–2010 served as the research base, while co-integration analysis utilized the bound testing technique. Research findings show that trade openness serves as a prerequisite for FDI to generate positive and increasing CO_2 emission effects in Burkina Faso, Gambia, and Nigeria. The effect of FDI results in less trading freedom for Ghana, Mali, and Togo, although FDI does not create persistent changes to greenhouse gases in Benin, Niger, Senegal, and Sierra Leone.

Sane (2016) investigated the underlying causes behind the Economic Community of West African States' (ECOWAS) search for foreign direct investment. The investigation relies on panel data models that were evaluated between 1985 and 2015. The primary factors influencing FDI in ECOWAS were found to be the adjustment of the macroeconomic environment, government spending expenditure, domestic credit to the private sector, interest rates, gross fixed capital formation, exchange rates, the Economic Freedom Index, natural assets, and market value.

3. METHODOLOGY

3.1. Theoretical Framework

An appropriate theoretical model serves as the essential foundation needed to understand FDI's economic growth impact on ECOWAS nations. Various studies already mentioned in the literature review utilize the Harrod-Domar model within Classical Growth Theory and the Solow growth model within Neoclassical Theory and Endogenous Growth Theory. Later in this study, researchers choose the Solow growth model as their conceptual basis. The 1956 model developed by Trevor Swan and Robert Solow focuses on analyzing perpetual variations in manufacturing output through population changes, along with saving rates and the speed of technological development. This research uses this theory to support its study because it focuses on ongoing economic expansion. The economic growth of ECOWAS nations relies primarily on investment coupled with savings since higher figures improve capital stock, which raises full-employment national income while benefiting economic development. FDI entry has established itself as an economic growth factor that enhances capital transfers alongside job generation, export expansion, and technological advances across ECOWAS nations. This model treats FDI as an important factor that elevates the capital stock for production, which leads to enhanced economic development of nations within the ECOWAS.

3.2. Model Specification

To achieve the objective of this research, Aderemi et al. (2019) and Aderemi et al. (2022) models were adapted, and their functional forms are stated as follows.

$$GDPR = f\,(FDI) \qquad\qquad (1)$$

The model requires additional factors such as trade openness and inflation rates alongside the population growth rate and manufacturing value added to enhance its robustness. The variables maintain their importance for economic growth based on the published research of Omitogun, Okoh, Olowo, and Aderemi (2021); Lawal, Adegun, Aderemi, and Dauda (2022) and Adelowokan, Omitogun, and Aderemi (2023). A new restructured functional method for the model appears as follows.

909

$$GDPR = f\ (FDI, TOP, INF, PGR, MAVA) \qquad (2)$$

Further efforts were made to transform model (2) into an econometric model for empirical analysis as follows.

$$GDPR_{it} = \beta_0 + \beta_1 FDI_{it} + \beta_2 TOP_{it} + \beta_3 INF_{it} + \beta_4 PGR_{it} + \beta_5 MAVA_{it} + u_{1t} \quad (3)$$

The research utilized panel unit root analysis during its pre-estimation phase to verify the stationary state of the data along with long-term convergence among relevant variables. Due to the mixed I (0) and I (1) status of the variables of interest, the panel ARDL technique was applied based on the guidelines mentioned in Pesaran, Shin, and Smith (2001); Pesaran and Pesaran (1997) and Pesaran, Shin, and Smith (1999). A panel form of the ARDL exists in the following form.

$$GDPR_{it} = \sum_{i=1}^{p1} \Omega_1\, GDPR_{it-j} + \sum_{j=1}^{p2} \Omega_2\, FDI_{it} + \sum_{k=1}^{p3} \Omega_3\, TOP_{it} + \sum_{i=1}^{p4} \Omega_4\, INF_{it} + + \sum_{i=1}^{p5} \Omega_5\, PGR_{it} +$$
$$\sum_{i=1}^{p5} \Omega_5\, MAVA_{it} + \theta ECM_{it-1} + \sum_{i=1}^{p1} \Omega_6\, \Delta GDPR_{it-j} + \sum_{j=1}^{p2} \Omega_7\, \Delta FDI_{it} + \sum_{k=1}^{p3} \Omega_8\, \Delta TOP_{it} + \sum_{i=1}^{p4} \Omega_9\, \Delta INF_{it} +$$
$$\sum_{i=1}^{p4} \Omega_{10}\, \Delta PGR_{it} + \sum_{i=1}^{p4} \Omega_{10}\, \Delta MAVA_{it} + u_{it} \qquad (4)$$

Where: GDPR refers to the GDP growth rate, FDI represents foreign direct investment, TOP indicates trade openness, INF signifies the inflation rate, PGR represents population growth, MAVA stands for manufacturing value added, u is the error term, t represents the year ranging from 1990 to 2023, and i represents 15 ECOWAS countries.

3.3. A Priori Expectation

The A priori prediction of the above-mentioned model in Equation 3 are as follows; β_1 to $\beta_5 > 0$.

Table 1. Measurement of variables.

Label	Notations	Expected value
GDP	-	
FDI	β_1	Positive (+)
TOP	β_2	Positive (+)
INF	β_3	Negative (-)
PGR	β_4	Negative (-)
MAVA	β_5	Positive (+)

Table 1 summarizes the description of the various relevant variables in this study. Therefore, foreign direct investment serves as the independent variable, and the additional four independent control variables consist of trade openness, inflation rate, population growth, and manufacturing value added. Dependent Variable: The study measures economic growth through the GDP growth rate to define its dependent variable.

3.5. Method of Data Analysis

The research uses panel unit root analysis to evaluate long-term variable relationships. The study employs autoregressive distributed lag (ARDL) to determine long-term variable relationships through cointegration analysis while conducting panel unit root analysis.

3.6. Population of the Study

This study investigates the target population, which consists of all fifteen nations belonging to the Economic Community of West African States. Among the research population are Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo. This study employed panel data from 1990 to 2023 from these fifteen West African Economic Community nations. The selection of these periods for this study was primarily driven by data availability.

Secondary data will serve to analyze FDI and economic growth associations within all nations belonging to ECOWAS during the period of study. Annual time series data were collected from various institutions such as the World Bank and UNCTAD annual investment report, together with the International Monetary Fund (IMF) and additional sources. The listed secondary sources received additional documentation from journal articles and conference proceedings, as well as multiple relevant research materials spanning 1990 through 2023.

4. DISCUSSION OF RESULTS

4.1. Data Analysis and Interpretation

The results alongside their interpretations regarding major study findings are presented in this section. The statistical research used E-Views software to apply different econometric analysis methods. The analytical process begins with descriptive breakdown statistics, then progresses to the correlation matrix analysis, followed by unit root tests via panel Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP), as well as Levin, Lin & Chu t* Test, Im, Pesaran, and Shin W-stat Test, and concludes with Johansen Fisher co-integration analysis results. The study presented ARDL regression results while verifying its results according to the research hypothesis.

4.2. Descriptive Statistics

Table 2 descriptive statistics of Variables of the model.

Table 2. Variables of the model.

Abbreviation	Variable	Proxy to be used	Sources
GDPR	Economic growth	GDP growth rate (Annual %)	WDI
FDI	Foreign direct investment	FDI inflow % of GDP	WDI
TOP	Trade openness	Trade % of GDP	WDI
INF	Inflation	Consumer price index (Annual %)	WDI
PGR	Population growth	Population growth (Annual %)	WDI
MAVA	Manufacturing value-added	Manufacturing value added (% of GDP)	WDI

The main features of data can be obtained through descriptive statistics, which provide an easy-to-understand presentation of the mean, median, mode, standard deviation, and range elements. These statistics reveal both patterns and trends that exist in the studied data. Table 3 presents the summary of descriptive statistics data.

The analysis of six variables' statistical data focuses on 384 samples from 1990 to 2022 among the 12 member nations of ECOWAS. The FDI inflows as a percentage of GDP show their maximum value at 18.8%, while the minimum value stands at -2.5% throughout the inspected ECOWAS nations, with an average of 2.4%. FDI inflows in the ECOWAS sub-region constitute a small percentage of its regional market capacity. FDI data extends widely from its mean point, even though its mean value remains below the standard deviation. Trade openness (TOP) extends from 131.4% to 16.3% in its measure and exhibits a mean value of 57%. Statistical data indicates that member states in the ECOWAS sub-region have strong connections with the international network of nations. The standard deviation of TOP demonstrates an outcome where the data points are spread reasonably apart from the mean value. The inflation rate for the area stretches from 72.8% up to -7.7%, and its average value rests at 6.8%. The data points of the inflation rate spread significantly from the mean because its standard deviation surpasses the mean value. The data shows the Population Growth Rate to have a maximum of 4.5% and a minimum of -0.7%, with a mean value of 2.7%. Each ECOWAS member state will experience its population reaching double figures within the period of thirty-five years. The variable shows a standard deviation value that is lower than its mean value when evaluating population growth rate data distribution. The data lies moderately far from its mean value according to these findings. The average manufacturing value added (MAVA) stands at 10.3%, while its maximum limits are 21.6% and minimum limits are 1.9%. The manufacturing sector supplies 10.3% of the GDP across all members of the Economic Community

of West African States. The data points remain in a moderate range of the mean value because MAVA's standard deviation measures lower than its mean value. The GDP growth rate shows its maximum value at 19.2%, and its minimum value reaches -28.0%. It has a mean value of 4.15%. The information indicates that economic growth expands at an annual average rate of 4.15%. The data displays substantial spreading from its mean because the mean value is smaller than the standard deviation.

Table 3. Correlation matrix.

Descriptive statistics	FDI (%)	TOP (%)	INF (%)	PGR (%)	MAVA (%)	GDP (%)
Mean	2.44	57.1	6.81	2.68	10.2	4.15
Median	1.55	54.2	2.97	2.68	9.54	4.39
Maximum	18.8	131	72.8	4.46	21.5	19.1
Minimum	-2.54	16.3	-7.79	-0.67	1.87	-28.0
Std. dev	2.67	19.6	11.4	0.62	3.89	4.195
Skewness	1.86	1.01	3.01	-0.83	0.76	-1.39
Kurtosis	8.03	4.03	13.3	6.16	3.04	13.8
Jarque-Bera	628	83.1	228	205	37.2	200
Probability	0.00	0.00	0.00	0.00	0.00	0.00
Sum	937	219	261	103	393	159
Sum sq. dev	274	148	501	147	580	674

The estimated results from Table 3 allow the evaluation of linear correlation patterns between variables using multiple pair comparison analysis. Multiple pairs of explanatory variables show a positive correlation between FDI and TOP at 0.428558, while INF and TOP have a -0.027669 correlation, and MAVA and INF have a -0.002002 correlation. Additionally, PGR and MAVA show a 0.035181 correlation. The performed correlation analyses did not exceed an excessive threshold that could sway the results from the subsequent modeling process. The results show that the data set contains no multicollinearity threat because all variable correlation coefficients remain under 0.8 (Goldberger, 1991).

4.3. Panel Unit Root Test

Table 4 shows the results from panel unit root tests which used the panel Augmented Dickey-Fuller (ADF) test statistic and the Phillips-Perron (PP) test statistic together with the Levin, Lin & Chu test statistic and the Im, Pesaran, and Shin W-stat test statistic.

Table 4. Panel unit root test.

Variables	FDI	TOP	INF	MAVA	PGR
FDI	1.00	0.42	-0.02	-0.36	-0.17
TOP	0.42	1.00	-0.02	-0.30	-0.40
INF	-0.02	-0.02	1.00	-0.00	-0.08
MAVA	-0.36	-0.30	-0.00	1.00	0.03
PGR	-0.17	-0.40	-0.08	0.03	1.00

The tests serve as key tools for econometric studies to detect unit roots and verify the non-stationary behavior of test sequences. The null hypothesis is rejected through four statistical tests because any p-value that drops below the 0.05 significance level makes the variable stationary. At a p-value above 0.05, the null hypothesis remains unchallenged, so the variable remains non-stationary. Statistical evaluations of both variable levels and differences appeared in Table 5 through four test statistics.

Table 5. Panel ADF test and panel PP test.

Variables	Level	Probability	1st difference	Probability	Remarks
	Panel ADF test				
FDI	49.2	0.00	164	0.00	1(1)
GDP	92.7	0.00	-	-	1(0)
TOP	32.8	0.10	165	0.00	1(1)
INF	95.8	0.00	-	-	1(0)
PGR	103	0.00	-	-	1(0)
MANVA	33.2	0.09	130	0.00	1(1)
Panel PP test					
FDI	69.8	0.00	309	0.00	1(1)
GDP	214	0.00	-	-	1(0)
TOP	72.7	0.00	316	0.00	1(1)
INF	119	0.00	-	-	1(0)
PGR	44.0	0.00	-	-	1(0)
MANVA	33.7	0.08	282	0.00	1(1)

Table 5 indicates that FDI, TOP, and MAVA were non-stationary before they stabilized after first differencing. The research evidence indicates that the variables maintain unit root status across their panel structure. The data from INF, PGR, and GDP maintained stationary characteristics at their primary level. Three variables displayed a lack of unit root through testing during the data analysis period. This study demonstrates both non-stationary and stationary variables, which create combinations of variables at I (0) and I (1) levels. The ARDL serves as an appropriate estimation method according to Pesaran and Pesaran (1997) P for situations that involve these variables.

Table 6. Panel ARDL regression results of FDI and economic growth in ECOWAS countries.

Regressors	Long run coefficient	t-stat	Short run coefficient	t-stat
Dependent variable: GDP				
FDI	0.20** (0.01)	2.45	0.10 (0.54)	0.59
TOP	0.07* (0.00)	3.14	0.04 (0.22)	1.22
INF	-0.01 (0.60)	-0.52	-0.01 (0.89)	-0.13
MAVA	0.04 (0.55)	0.59	-0.76 (0.05)	-1.95
PGR	1.66* (0.00)	3.11	-0.58 (0.89)	-0.13

Note: Significance 1%* Significance 5%** Prob. Value is in parenthesis.

Using the ARDL model, researchers obtain dependable measurements of both long-term and short-term coefficient effects between variables because of its ability to accurately estimate direct effects. All statistical significance findings appear in the presented table results for long parameters. FDI maintains its continuous impact on economic growth in all ECOWAS member countries according to the collected data. The research analyzes persistent patterns due to the obtained findings. The results from Table 6 indicate that FDI generates statistically significant growth effects on the economies at a 5% significance level while its coefficient stands at 0.202052. A unit variation in FDI results in an increase in economic growth of 0.20% in ECOWAS countries. The analyzed connection between TOP and economic growth reaches statistical significance at a 1% significance level through a coefficient value of 0.072637. An increase of 0.07% in economic growth is detected after one unit adjustment to TOP according to statistical data. The variable INF reveals no significant statistical relationship because its coefficient value equals -0.008234 and implies an inverse connection with economic growth. Economic growth experiences a 0.008% decrease after INF experiences a one unit increase. The MAVA variable affects GDP in two opposing directions because its coefficient stands at 0.044225. A unit variation in MAVA results in a 0.04% increase in economic growth in ECOWAS

913

countries. The PGR variable, displaying a coefficient of 1.669801, shows a favorable association with GDP at a 1% significance level. A unit change in PGR causes economic growth to increase by 1.67%.

4.4. Discussion of Findings

A research study based on ARDL regression investigated how FDI affects the economic expansion of ECOWAS nations. Economic growth demonstrates a strong direct relationship with FDI, according to experimental findings. FDI shows the capability to positively enhance economic development in ECOWAS member states. The results align with findings presented in the research of Fredrick and Manasseh (2014); Babarinde (2020); Kolade (2019); Hassan (2017) and Alege (2013). Awe (2013) provided findings that differ from this research. Trade openness proves, through additional research results, to be directly linked to positive economic growth patterns. Analysis shows that open trade systems generate positive outcomes for economic expansion within ECOWAS nations. The relationship between economic growth and inflation works in both directions and shows little impact. The results indicate that high inflation presents potential economic dangers for countries within ECOWAS. Manufacturing value added displays a positive yet non-significant relationship with economic growth in ECOWAS nations. Evaluation of economic growth within ECOWAS nations reveals that population serves as a key positive influence on their economic development. The evidence indicates that population expansion plays an essential role in advancing economic growth within ECOWAS nations.

5. SUMMARY, CONCLUSION AND RECOMMENDATION

The research investigated FDI's effect on ECOWAS economic development across two decades by using data from 1990 to 2023 and ARDL methodology. The research determined through analysis that FDI leads directly to substantial economic expansion. The degree of trade exposure shows positive effects in enhancing economic growth. The inflation rate shows a direct and unfavorable negative connection with economic growth. The influence of manufacturing value added extends to both positive and negative relationships with economic growth levels. Economic growth develops positively in direct proportion to the rate at which the population increases. Authorities in the ECOWAS countries should establish policies that boost foreign direct investment inflows because this approach can lead to solid economic expansion within the sub-region. The ECOWAS policymakers should launch policies that aim to eradicate or minimize the present stagflation conditions in ECOWAS countries. The research endorses that ECOWAS countries should adopt additional measures to expand their manufacturing sector and enhance productivity rates, which will create employment opportunities to achieve sustainable economic prosperity.

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