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The Impact of Foreign Direct Investment in Africa's Economic Growth: The Mediating Role of Financial Development

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ABSTRACT

Foreign direct investment (FDI) and the development of domestic financial systems are two key factors influencing growth in many countries worldwide. This study investigates the impact of FDI on the economic growth of African countries with emphasis on the mediating role of financial development. The study examines 43 African Countries over a period spanning from 2010 to 2024 using longitudinal data. The study employs Fixed Effects Regression analysis based on the results of the Hausman Test conducted. The results indicate that FDI exhibits a statistically insignificant negative relationship with economic growth. Also, the effect of financial development on economic growth is negative and significant. However, the interaction coefficient between FDI and financial development exhibited a positive, albeit non-significant, impact on the economic growth of African Countries. The study recommends implementing policies to deepen financial markets in African countries. Additionally, policymakers should de-emphasise the FDI volume inflows. Instead, governments should target productive and technology-intensive FDI that focuses on sectors like manufacturing, renewable energy, and ICT. Finally, African country governments should invest in Human Capital to strengthen the strong positive link between human capital, productivity and growth, through increased investment in education, technical skills, and healthcare.

Keywords: Economic Growth, Foreign Direct Investment, Financial Development, Government Expenditure, Fixed-Effect Regression.

1.0 INTRODUCTION

One of the most significant development conundrums of our day is the economic growth of African economies. Many of the continent's nations continue to fall short of their potential in terms of per capita income, productivity growth, and structural transformation, despite an abundance of natural resources, favourable demographics, and increased global connectivity. Foreign direct investment (FDI) and the evolution of domestic financial systems are two key elements influencing growth that are particularly noteworthy for their theoretical appeal and policy relevance (Ugwuegbe & Okoro, 2016). However, despite the fact that each of these has been thoroughly researched, the literature on how FDI and financial development interact to affect growth in Africa is still dispersed.

Foreign direct investment, defined as cross-border capital flows that involve a foreign investor's long-term ownership, management, or control of a business in a host nation, has been heavily promoted as a driver of economic growth. Capital supplementation, technology transfer, managerial expertise, access to global markets, and linkage effects that might boost domestic firms' productivity are some of the potential pathways that make it appealing. For instance, research has demonstrated that FDI boosts investment levels, improves human capital, and increases external competitiveness in many developing nations (Nguyen, 2022). The evidence remains conflicting in the African setting as well, with some countries experiencing significant growth benefits from FDI, while others show little to no effect. The vast differences in host-country conditions are a primary cause.

Financial development encompasses the breadth, depth, efficiency and stability of banking institutions and capital markets. Financial development plays a crucial role in enabling a nation's economic growth (Saibu & Alenoghena, 2017). A well-functioning financial system mobilises savings, intermediates credit, allocates resources to productive investment, and facilitates risk management. Classic growth theory extensions highlight financial intermediation as a crucial mechanism linking savings to investment and, consequently, to growth (Diop, 2025). Nevertheless, in sub-Saharan Africa (SSA) and parts of the continent, many financial systems remain relatively shallow, sometimes distorted by policy interventions, high intermediation costs, concentration, or lack of inclusivity. For example, Diop (2025) finds that while stock market development tends to have a positive growth effect, banking sector development in isolation sometimes shows negative or ambiguous relationships in SSA contexts.

Why then is it essential to examine FDI and financial development together? Three key considerations motivate this approach. First, FDI's effectiveness in stimulating growth depends on the host economy's "absorptive capacity", which includes human capital, institutional quality, infrastructure, and financial system maturity. In this sense, even large FDI inflows may yield weak growth returns if the domestic financial infrastructure is incapable of efficiently directing resources, supporting linkages between foreign enterprises and domestic firms, or maintaining stability. Nguyen (2022) emphasises that the spillover effects of FDI depend significantly on financial development. Second, financial development on its own may mobilise domestic resources and support investment. However, without the productive external linkages that FDI brings, such as technology transfer and global value-chain integration, it may fail to yield structural transformation or higher growth. Therefore, the interplay between FDI and financial development may generate synergies greater than the sum of their separate effects. Third, from a policy perspective, many African countries pursue FDI attraction and financial sector reform, but often in silos. A better understanding of how these two policy levers work together can help align strategies for maximising growth impact.

The empirical literature reinforces the need for a combined-effect approach. Yusuf, Shittu, Akanbi, Umar, and Abdulrahman (2020) found, in a study of West Africa, that both FDI and financial development affected economic growth, but their coefficients varied with the institutional and political context. Crucially, the study implied interaction effects, although it did not always model them explicitly. Other studies, such as Nguyen's (2022) work in the ASEAN context, highlight threshold effects in which the positive impact of FDI on growth emerges only when financial development exceeds a certain threshold. Nevertheless, in Africa, fewer studies directly test the joint effect of FDI and financial development, or how the level or quality of financial development conditions FDI's growth impact. A recent paper by Diop (2025) on financial development and economic growth in Sub-Saharan Africa examines the relationship between banks and stock markets, but does not integrate FDI flows into the same model. Thus, a gap exists: there is limited empirical evidence on how FDI and financial development, together rather than separately, shape growth outcomes in Africa, and under what conditions their interaction is most effective.

Thus, the goal of this study is to close that gap. The specific objectives are to: (1) determine how foreign direct investment (FDI) affects economic growth in African nations; (2) assess how financial development either facilitates or inhibits the growth effects of FDI; and (3) identify threshold or interaction effects that indicate when financial development is adequate to enable FDI to realise its full growth potential. This study's contribution lies in its emphasis on the combined impact of FDI and financial growth in the African context, its use of current data, and its consideration of both banking and capital market components of financial development. By doing this, the study will provide African governments seeking to integrate robust financial-sector frameworks with external capital attractiveness with sophisticated policy insights.

In conclusion, this study argues that FDI and financial development should not be viewed as separate factors in the context of the African economy; instead, their synergistic relationship is essential. A nation that receives a large amount of foreign direct investment but has a strong, developed, and inclusive financial system may not reap the full benefits of prosperity. On the other hand, growth acceleration may also be constrained by a strong banking system that lacks access to outside productive capital. Therefore, a viable route for inclusive and sustainable economic growth in Africa is provided by the combined impact of financial development and FDI.

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2.0 LITERATURE REVIEW

2.1 Theoretical Review

The relationship between FDI, financial development, and economic growth can be understood through several economic theories. These theories provide a framework for explaining how external capital interacts with domestic financial structures to influence growth outcomes.

2.1.1 Modernisation Theory

According to modernisation theory, capital influx, technological transfer, and integration into international markets are key factors influencing economic transformation in emerging nations. According to this viewpoint, FDI stimulates modernisation by introducing resources, managerial know-how, and exposure to global competitiveness. Investment is crucial as a precondition for moving from the "take-off" to the "maturity" stages of development, according to Rostow's (1960) Stages of Economic Growth model.

According to modernisation theory, foreign direct investment (FDI) can hasten structural change in Nigeria by assisting in the country's economic diversification away from the export of primary commodities. However, the theory assumes the existence of supportive institutions and absorptive capacity, which in Nigeria's case refers to adequate infrastructure, a skilled workforce, and a sound financial system (Nwaogwugwu & Alenoghena, 2018).. In the absence of these conditions, FDI may lead to enclave development, benefiting only foreign-owned sectors with minimal spillover effects in the broader economy.

2.1.2 Financial Intermediation Theory

Financial institutions play a crucial role in mobilising savings and directing them toward profitable investments, according to financial intermediation theory, which was formulated by Gurley and Shaw (1960) and has its roots in Schumpeter's (1911) writings. Through the reduction of transaction costs, risk management, and information asymmetries, financial intermediaries enhance capital allocation efficiency, thereby fostering economic expansion. According to this paradigm, the adequate flow of funds to different sectors of the economy is facilitated by a robust and well-organised financial industry, which includes capital markets, commercial banks, and microfinance organisations. This suggests that for Nigeria to convert FDI inflows into significant economic benefits, a robust financial system is necessary.

When domestic firms can access financing, they are better positioned to absorb the technologies and management practices introduced by foreign investors, expand production, and contribute to sustainable growth. Thus, financial intermediation theory emphasises the importance of strengthening Nigeria's financial institutions to harness the developmental benefits of FDI fully.

2.1.3 Endogenous Growth Theory

Romer (1986) and Lucas (1988) developed the endogenous growth hypothesis, which emphasises knowledge spillovers, human capital development, and innovation as the primary drivers of sustained economic growth. The endogenous framework posits that expenditures in research, education, and technology can yield growing returns by fostering ongoing innovation and productivity improvements, in contrast to neoclassical growth models, which imply diminishing returns to capital. According to this theoretical framework, foreign direct investment (FDI) and financial development are both crucial conduits for the spread and innovation of technology. While financial markets provide the resources required to finance research, entrepreneurship, and industrial modernisation, foreign direct investment (FDI) facilitates the introduction of new technologies, management strategies, and production methods.

The relationship between the two becomes significant because FDI's ability to promote innovation and local technical growth is constrained in the absence of a strong financial system.

The implications of endogenous growth theory are especially pertinent to African countries. Innovation and productivity growth can be fostered by policies that both encourage international investment and fortify domestic financial institutions (Alenoghena et al., 2025). The economy's absorptive ability can also be increased by bolstering

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institutional capacity, investing in human capital, and expanding access to financing. By doing this, Nigeria may transform foreign capital inflows into long-term, innovation-driven growth as opposed to rapid production growth.

2.2 Empirical Review

2.2.1. Foreign Direct Investment (FDI) and Economic Growth

The writers' conclusions in this section fall into two categories: According to the first group of authors (Adedoyin et al. 2022, Adegbite & Ayadi 2021, Akinlo 2020; Osinubi & Amaghionyeodiwe 2018; Olayungbo & Quadri 2019, and Omri & Kahouli 2016), Foreign Direct Investment (FDI) has a positive relationship and is essential to Economic Growth. They maintained that foreign direct investment (FDI) is a significant driver of industrialisation, especially in industries with more noticeable spillover effects, such as services and telecommunications. FDI increases capital accumulation and worker productivity, both of which support steady GDP development.

While some contend that Foreign Direct Investment (FDI) has a detrimental effect on economic growth, the overall mixed evidence suggests that the benefits of FDI are not automatic. Their realisation depends largely on complementary policies, institutional quality, and the depth of the domestic financial system (Uzonwanne, 2017; Asiedu, 2017; Okonkwo, 2020; Epor, 2024).

2.2.2 Financial Development and Economic Growth

Scholars have examined the relationship between Financial Development and economic growth; their conclusions are summarised in two ways. According to some, there is a positive correlation between Financial Development and economic growth. For example, financial development promotes economic growth by improving resource allocation, encouraging savings, and enhancing private sector investment (Svirydzenka, 2016; Ibrahim & Alagidede, 2018; Ndebbio, 2019; Olawumi et al., 2021; Adebayo & Olayemi, 2022). However, some researchers hold a contrary position, arguing that Financial Development hinders economic growth due to a non-linear relationship in which excessive financial deepening may hinder growth by promoting financial instability, credit misallocation, and excessive risk-taking. This concern is reflected in Nigeria's experience, where banking crises, weak credit infrastructure, and poor financial governance have occasionally undermined growth. (Yakubu & Affoi 2014; Law & Singh 2014, Adeleye et al. 2020, Alenoghena et al., 2020).

2.3.3. Combined Effect of FDI and Financial Development on Economic Growth in Nigeria

The literature study makes it abundantly clear that. In contrast, many studies have examined the separate impacts of financial development and foreign direct investment (FDI) on economic growth; comparatively few have investigated how the two interact in the Nigerian setting. When such studies are conducted, the results are nevertheless unclear due to variations in measurement indicators, data coverage, and methodological techniques.

This study contributes to the existing body of literature by examining the joint effects of financial development and foreign direct investment on long-term economic outcomes using a dual-variable analytical approach. By doing this, it aims to clarify the extent to which the interplay between these two important economic forces can enhance industrial diversification, increase productivity, and advance Nigeria's broader development goals.

3.0 METHODOLOGY

3.1 Theoretical Evaluation of the Relationship between FDI and Economic Growth

The theoretical relationship between FDI and Economic Growth the dynamics between the neoclassical growth theory (Solow) and the endogenous growth theory (AK model) as they concern the technology spillover effect.

The first step is the standard Cobb-Douglas production function for the national aggregate output of Y;

$$Y_t = A_t K_t^{\alpha} L_t^{1-\alpha}, \qquad 0 < \alpha < 1 \quad - \quad - \quad - \quad (1)$$

Where A_t is total factor productivity (TFP), K_t is physical capital and L_t is labour.

The next step is to decompose physical capital into domestic capital K_t^d and foreign (FDI) capital K_t^f, therefore:

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$$K_t = K_t^d + K_t^f \quad - \quad - \quad - \quad (2)$$

In the alternative, FDI may be treated in the form of net capital inflow (investment) I_t^f that augments the share of investment.

In line with the neoclassical framework, we assume that labour grows at the rate n, and technology grows at the rate g. We can assume that s be the aggregate domestic plus FDI induced investment rate and δ is depreciation.

Define the output per effective worker as;

$$y = \frac{Y}{AL} \text{ and capital per effective } k \equiv \frac{K}{AL}$$

Hence, the law of motion for k becomes:

$$\dot{k} = sf(k) - (n + g + \delta)k \quad - \quad - \quad - \quad (3)$$

With $f(k) = k^{\alpha}$, which indicates the Cobb-Douglas per effective worker. With more inflow of funds and better utilization of resources, we can write:

$$s = s_d + s_f$$

Where s_f is the share attributable to FDI hence, a higher s would mean a higher $\dot{k}$ for every given k.

Therefore, the steady state k^* would satisfy:

$$s(k^*)^{\alpha} = (n + g + \sigma)k^* \quad \Rightarrow \quad k^* = \left(\frac{s}{n + g + \delta}\right)^{\frac{1}{1-\alpha}} \quad - \quad - \quad (4)$$

The steady-state output per effective worker:

$$y^* = (k^*)^{\alpha} = \left(\frac{s}{n + g + \delta}\right)^{\frac{1}{1-\alpha}} \quad - \quad - \quad - \quad (5)$$

If FDI increases s, it raises the level of k^* and y^*. Hence, reflecting a higher steady-state income per worker.

In the case of a long-run growth rate of output per worker is g will involve an exogenous tech growth. In the basic Solow Model, FDI (Technology) does not change the long-run growth rate. FDI can only impact on the level and the speed of convergence (transition path).

Additionally, in the course of a transition, the economy grows at a faster pace as k transits to the new k^*. Thus, FDI yields a temporary higher growth until the new steady state is reached unless it affects g.

When we take account of the endogenous growth and spill-over effect, the persistent effect framework with the embed FDI may be analysed to observe the non-diminishing returns to capital.

Specifically, we theorise in the AK model of the endogenous growth theory:

$$Y_t = Ak_t; \qquad with\ A > 0$$

A may also be constant or depend on the existing technology. Hence, Capital accumulation:

$$\dot{K} = sY - \delta K = sAK - \delta K = (sA - \delta)K \quad - \quad - \quad (6)$$

Hence, growth rate of K (and Y):

$$\frac{\dot{K}}{k} = sA - \delta \quad - \quad - \quad - \quad (7)$$

If FDI increases, the effective s which is the investment rate raises A through the technology transfer involving management and linkages. As sA rises, the growth rate increases permanently.

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Technological spillovers are the unintended and uncompensated spread of technology and knowledge from one entity to another, which can lead to productivity gains and economic growth. This occurs when one company's research and development (R&D) or innovation benefits other firms or sectors through passive means like observation, imitation, and publicly available information, rather than a direct, paid transfer.

To take account of spillover formulation, we assume that domestic productivity depends on aggregate capital (externality):

$$Y_t = AK_t^{\alpha}(H_t)^{\beta} \quad - \quad - \quad - \quad (8)$$

The domestic firms focus only aspect of returns but receive technology spillovers from the FDI model. The investment spillover as FDI increasing A or adding an external productivity term:

$$A_t = A_0 + \theta K_t^f \quad - \quad - \quad - \quad (9)$$

Observing that $\theta > 0$, measuring technology transfer intensity, then FDI enters the production function not only as capital but as an augmenting factor that raises TFP and makes it potentially sustaining higher growth because A_t itself grows with FDI or with experience/learning.

Tow situations may arise: i) If FDI raises A_t (persistent productivity) or changes the production elasticities, capital accumulation will have non-diminishing returns hence, FDI will generate a permanent effect on the growth rates, and not just at levels; ii) The mechanisms of effect will hinge on knowledge spillovers, upskilling of human capital, productivity-enhancing competition, exports and linkages.

3.2 Model Specification

The model utilized in this research study falls in tandem with the specification by Bahri et al. (2017) and the model specified by Appiah et al. (2023). The model expresses Economic Growth (EG) as the dependent variable and foreign direct investment (FDI) and financial development (FIND) as the explanatory variables. The control variables specified for the model include trade opennesss (TOP), inflation (INFL), government expenditure (GEXP) and human capital development (HCD). The variables are shown in equation (1) as follows:

EG = f(FDI, FIND, TOP, INFL, GEX, HCD) - - - - (10)

The expression may be transformed into a more compact version in equation (2) shown as follows:

Equation (1) can be expressed further in the functional form:

$$EG_t = \beta_0.(FDI_t)^{\beta_1}.(FIND_{2t})^{\beta_2}.(TOP_{3t})^{\beta_3}.(INFL_{4t})^{\beta_4}.(GEXP_{5t})^{\beta_5}.(HCD_{6t})^{\beta_6} \text{ - } \quad \text{- } \quad (12)$$

For the purpose of estimation, equation 2 has needs to be log-linearised. The process of log-linearising is necessary to configure the scales of the variables to streamline the data fluctuations. Therefore;

$$LnEG_t = \beta_0 + \beta_1 LnFDI_{1t} + \beta_2 LnFIND_{2t} + \beta_3 LnTOP_{3t} + \beta_4 LnINFL_{4t} + \beta_5 LnGEXP_{5t} + \beta_6 LnHCD_{6t} + \mu_t \text{ - } \text{- } \text{- } (13)$$

Since the data to be estimated is longitudinal, the configuration should take account of time and cross-section hence;

$$LnEG_{it} = \beta_0 + \beta_1 LnFDI_{1it} + \beta_2 LnFIND_{2it} + \beta_3 LnTOP_{3it} + \beta_4 LnINFL_{4it} + \beta_5 LnGEXP_{5it} + \beta_6 LnHCD_{6it} + \mu_{it} \text{ - } \text{- } \text{- } (14)$$

Model (6) shows that economic growth (dependent variable) is being regressed on FDI and FIND, with TOP, INFL, GEXP, and HCD as the control variables. Moreover, in line with panel longitudinal configuration, the i^{th} element designates the country effect and the t^{th} factor designates the time of observation. Hence, in a typical panel data fashion, the i^{th} element takes account of the longitudinal analysis while the t^{th} factor accounts for the time series segment.

Equation 14, will be used to assess the individual effects of foreign direct investment and financial development on economic growth. In a reconfiguration, equation 15 will be used to assess the interaction effect of FDI with FIND on EG.

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$$LnEG_{it} = \beta_0 + \beta_1 LnFDI_{1it} + \beta_2 LnFIND_{2it} + \beta_3 LnFDI * FIND_{3it} + \beta_4 LnTOP_{4it} + \beta_5 LnINFL_{5it} + \beta_6 LnGEXP_{6it} + 7LnHCD_{7it} + \mu_{it} \quad - \quad - \quad (15)$$

On the models to be examined, $\beta_0, \beta_1, \beta_2, \beta_3, \beta_4, \& \beta_5$ are the coefficients to be estimated in Equation 14 & 15 and μ_t is the stochastic error term that is associated with the models.

Furthermore, the apriori expected signs of the models are for equations (14 & 15): $\beta_1 > 0; \beta_2 > 0; \beta_3 > 0; \& \beta_4 > 0$.

The apriori expected signs for equation (5) are: $\beta_1 > 0; \beta_2 > 0; \beta_3 > 0; \beta_4 > 0; \beta_5 > 0 \& \beta_6 > 0$.

Therefore, the parameter > 0 implies a positive relationship between the dependent and independent variables. Also, < 0 means a negative relationship between the dependent and independent variables.

3.3 Data and Variables

The data for this research study is obtained from three sourced: World Development Indicators (World Bank); Global Economy Data and ; ND-GAINS (Australia). The variables and their units of measurements are shown in Table 1 that follows.

Variable	Full Name	Measurement	Source
EG	Economic Growth	GDP per capita refers to the gross domestic product (at constant prices) divided by mid-year population	WDI
FDI	Foreign Direct Investment	Foreign direct investment are the net inflows of investment to acquire a lasting management interest (10, percent or more of voting stock) in an enterprise operating in an African Country	WDI
FIND	Credit to Private Sector	Domestic credit to private sector refers to funds provided to the private sector by financial institutions, such as through loans, purchases of non-equity securities, and trade credits and other accounts receivable (Estimated as share of GDP).	WDI
TOP	Trade Openness	The addition of exports and imports together divided by the GDP and taken as a percentage. It indicates the degree of trade liberalization.	WDI
GEXP	Government Expenditure	Central government expenditure refers to the total expenses incurred by the central government to execute its functions and responsibilities. Some examples are defense, education, healthcare and infrastructure. (Taken as a ratio of GDP)	GlobalEconomy
HDI	Human Development index	HDI measures the contributions of formal education, new skills, training and income to the employee's productivity. It is an index that ranges between zero and one to indicate the productivity capacity of an ideal employee who enjoys full health and with a good educational standard.	ND-GAIN
INFL	Inflation	The inflation rate on the consumer price index estimates the annual percentage change in cost to the average consumer in terms of purchasing a basket of goods and services annually. The Laspeyres formula is used	WDI

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3.4 Selected Countries

Using data from more than 43 countries in Africa during the period 2010-2024, with 15 observations. Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cape Verde, Central African Republic, Chad, Democratic Republic of Congo, Egypt, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Ivory Coast, Kenya, Lesotho, Libya, Madagascar, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Republic of Congo, Rwanda, Senegal, Seychelles, Sierra Leone, South Africa, Sudan, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe.

3.5 Estimation Strategy

The estimation strategy for this research study is a five-step procedure. First, the dataset is analysed using descriptive statistics and a correlation matrix of regressors. Second, it entails the utilisation of econometric techniques to establish the stability of the data using the Panel ADF-Fisher's Chi-Square and the Levin, Lin, and Chu Unit Root Tests. The third step is the Cointegration test using the Pedroni residual approach. The fourth step involves panel regression using the Least Squares approach of the Random and Fixed Effects. The Hausman Test will determine which of the two methods to adopt. The diagnostic tests will involve the serial correlation test, the heteroscedasticity test and the cross-sectional dependence test.

3.6 Analytical Framework

The analytical framework for this study is the Panel data regression method of Fixed Effect and Random Effect Models. The fixed and random effect models are also known as panel data models since they take account of the multiple measurement points of the individual units measured in panel data. The new models introduced show superiority over the standard regression model since they account for clustering compared with the Mundlak model and Allison's hybrid model (Schunck, 2013). Within and between estimates in random-effects models: Advantages and drawbacks of correlated random effects and hybrid models. The fixed effect model 'treats unobserved differences between individual units as a set of fixed parameters that can either be directly estimated or partial out of the estimating equations' (Allison, 2009, p. 2)—the fixed effect model controls for all the stable and unobserved variables. The model also incorporates the variables that cannot be measured. In the model, each variable becomes its control. As a result, all individual variation becomes accounted for in the fixed effect. The fixed effect contains the all-time-invariant differences between individual variables, while the model can estimate time-varying differences. However, there is a significant drawback to the fixed-effect approach. The fixed effect incorporates all-time-invariant differences between the individual units. Hence, the analysis cannot estimate time-invariant parameters within a fixed effect framework.

3.6.1 Fixed effect model:

$$Y_{it} = \beta_0 + \lambda_i + \beta_1 X_{1it} + \cdots + \beta_k X_{kit} + \varepsilon_{it} \quad - \qquad - \quad (15)$$

Note that the individual effect of the fixed effect model is λ_i and it is constant over time.

What differentiates the random effects model from the fixed effects model is restricted by the structure of the relationship between observed and unobserved variables. In the random effect model, there are two mechanisms to the error distribution (this is why, traditionally, in some of the literature, it is known as an error components model). The mechanisms require an assumption that unobserved variables are uncorrelated with the observed variables. This assumption further requires that unobserved characteristics must be uncorrelated with the variables that are observed in the model (since the correlation between the observed and unobserved variables may lead to bias in the random effects estimates).

3.6.2 Random effect model:

$$Y_{it} = \beta_0 + \lambda_i + \beta_1 X_{1it} + \cdots + \beta_k X_{kit} + v_i + \varepsilon_{it} \quad - \qquad - \quad (16)$$

A distinguishing feature of the random effect model is the two error terms $v_i + \varepsilon_{it}$

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3.6.3 Hausman Test

A specification test based on the difference between the fixed effect and random effect estimators is known as the Hausman test. The null hypothesis requires that the individual effects are not correlated with the X'_{it}s. The basic idea behind this test is that the fixed effect estimator $\tilde{\beta}_{FE}$ is consistent, whether or not the effects are correlated with the X'_{it}s. The important fact is that within transformation $\tilde{y}_{it}$ wipes out the μ_i's from the model. However, if the null hypothesis becomes true, the fixed effect estimator is not efficient under the random effect specification because it depends only on the within variation in the data. However, the random effect estimator $\tilde{\beta}_{RE}$ is efficient under the null hypothesis but is biased and inconsistent when the effects are correlated with the X'_{it}s. The difference between these estimators $\hat{q} = \hat{\beta}_{FE} - \hat{\beta}_{RE}$ tends to zero in probability limits under the null hypothesis and is non-zero under the alternative. The variance of this difference equalizes to the difference in variances, $\text{var}(\hat{q}) = var(\hat{\beta}_{FE}) - var(\hat{\beta}_{RE})$, because $\text{cov}(\hat{q}', \hat{\beta}_{RE}) = 0$ under the null hypothesis. Hausman's test statistic is based on $m = \hat{q}'[var(\hat{q})]^{-1}\hat{q}$ and is asymptotically distributed as χ^2_K under the null hypothesis.

4.0 DATA ANALYSIS AND RESULTS PRESENTATION

4.1 Descriptive Statistics

Table 1 presents the descriptive statistics for the variables employed in this study, which covers 43 African countries over the period 2010–2024, comprising 15 annual observations per country. The variables include Economic Growth (EG), Foreign Direct Investment (FDI), Credit to the Private Sector (FIND) as a proxy for financial development, Trade Openness (TOP), Government Expenditure (GEXP), Human Development Index (HDI), and Inflation (INFL). The mean values for these variables are as follows: LEG (7.4435), FDI (4.0322), LFIND (2.8802), LTOP (4.1413), INFL (8.9422), LGEXP (2.6319), and HCI (0.5663). These averages suggest that, on balance, African economies exhibit moderate levels of growth and financial development, with variations in structural and macroeconomic performance across countries. The average value of financial development (LFIND) reflects the relatively shallow credit provision typical of many African banking systems, consistent with findings by Diop et al. (2025) and Beck et al. (2000), who observed that Africa's financial depth remains below global averages. The mean inflation rate (INFL = 8.94) indicates moderate price volatility, aligning with the World Bank (2024) reports that inflationary pressures remain a recurring challenge in several African economies.

The maximum values reveal substantial variation among countries and over time. Inflation peaked at 557.2, demonstrating episodes of severe macroeconomic instability—possibly linked to policy inconsistencies, conflict, or external shocks. Likewise, FDI reached a high of 56.29 per cent of GDP, and economic growth peaked at 9.86 per cent, underscoring the heterogeneity of fiscal management, investment climates, and industrial structures across the continent. Such wide dispersions echo Alfaro et al. (2004), who noted that African economies display divergent FDI–growth outcomes depending on institutional and financial conditions. Regarding the standard deviations, Inflation (33.74) and FDI (5.97) exhibit the highest dispersion, indicating that these variables vary significantly across countries and years. The high variability may reflect outlier effects caused by hyperinflationary episodes or exceptional FDI inflows in specific economies such as Nigeria, South Africa, or Egypt. This degree of dispersion justifies the use of robust estimation techniques—for example, the Generalised Method of Moments (GMM)—to control for potential heteroscedasticity and endogeneity, which are often present in panel data models (Arellano & Bond, 1991).

All variables exhibit positive skewness, indicating that their distributions are right-tailed, with a concentration of observations on the lower end and a few extreme values on the higher end. This pattern suggests that while most African economies cluster around modest levels of growth and investment, a few achieve exceptionally high performance—consistent with the uneven pace of structural transformation noted by Soumaré et al. (2018). The kurtosis statistics further reveal that variables such as LEG, LFIND, and HCI are platykurtic (kurtosis < 3), indicating flatter distributions relative to the standard curve. In contrast, INFL, FDI, and TOP are leptokurtic (kurtosis > 3), signifying heavier tails and sharper peaks, which imply the presence of extreme observations. This combination suggests that while some indicators are relatively stable across the sample, others experience significant fluctuations, particularly those influenced by external shocks or capital flows.

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The Jarque–Bera normality test supports these observations. For most variables, the p-values are below the 0.05 significance threshold except LFIND and LGEXP leading to the rejection of the null hypothesis of normality. This result implies that the data are not normally distributed, a common feature in macroeconomic panel data where structural differences and regional shocks prevail (Nguyen, 2022). Therefore, econometric techniques robust to non-normality and heteroscedasticity are appropriate for the subsequent estimation stages.

In summary, the descriptive analysis reveals that African economies exhibit substantial variability in growth, FDI inflows, and financial development, reflecting the continent's diverse institutional and macroeconomic realities. The presence of asymmetry and non-normality in the data underscores the need for dynamic panel estimators that can capture both heterogeneity and endogeneity in the relationship between FDI, financial development, and economic growth—the central focus of this research.

Table 1 Descriptive Statistics

	LEG	FDI	LFIND	LTOP	INFL	LGEXP	HCI
Mean	7.44353	4.03217	2.88017	4.14125	8.94216	2.63190	0.56631
Median	7.24182	2.56000	2.80998	4.15356	4.55877	2.67104	0.54700
Maximum	9.85962	56.29000	4.65252	5.40349	557.20180	3.92868	0.85300
Minimum	5.26274	-17.29000	1.12881	0.90422	-3.23339	1.27815	0.27900
Std. Dev.	1.02097	5.97092	0.72306	0.50715	31.03796	0.45642	0.11650
Skewness	0.37929	3.21285	0.16148	-1.16728	12.90320	-0.01227	0.32822
Kurtosis	2.27632	20.92768	2.81634	8.95380	198.69980	3.19088	2.31218
Jarque-Bera	27.5706	8916.158	3.38193	1024.150	972486.00	0.91358	22.67536
Probability	0.0000	0.0000	0.1843	0.0000	0.0000	0.6333	0.0000
Sum	4481.00	2378.98	1693.54	2488.89	5356.35	1558.08	340.92
Sum Sq. Dev.	626.48	20998.93	306.89	154.32	576086.30	123.12	8.16
Observations	602	590	588	601	599	592	602

Source: Authors' Estimation

4.2 Correlation Matrix

Table 2 presents the correlation matrix for the key variables employed in this study. The results indicate that most variables exhibit low to moderate correlation coefficients, suggesting relatively weak linear relationships among them. In particular, several variables such as Foreign Direct Investment (FDI), Credit to the Private Sector (FIND), Trade Openness (TOP), and Government Expenditure (GEXP) demonstrate modest associations with Economic Growth (EG), implying that their effects may manifest through indirect or dynamic channels rather than immediate linear linkages.

Notably, a strong and positive correlation is observed between Economic Growth (EG) and the Human Development Index (HDI), with a coefficient of 0.89. This exceptionally high value signifies a close association between economic expansion and improvements in human welfare, consistent with empirical findings by Mahembe (2014) and Soumaré et al. (2018), who emphasised that growth in African economies tends to translate into measurable human development gains when supported by effective institutional and financial frameworks. The strong EG–HDI relationship highlights the developmental significance of economic growth as a key driver of welfare improvement across African nations.

Overall, the observed pattern of low pairwise correlations among the explanatory variables suggests that the risk of multicollinearity is minimal. Multicollinearity occurs when independent variables in a regression model are highly

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correlated, which can inflate standard errors and distort the statistical significance of coefficients (Gujarati & Porter, 2009). In this study, all pairwise correlation coefficients fall below the conventional threshold of 0.80, indicating that the explanatory variables are sufficiently distinct in their influence on economic growth. This diagnostic outcome enhances the credibility of the model and provides confidence in the robustness of subsequent regression results.

Table 2 – Correlation Matrix

Covariance Analysis: Ordinary							
Sample: 2010 2610							
Correlation	**LEG**	**FDI**	**LFIND**	**LTOP**	**INFL**	**LGEXP**	**HCI**
LEG	1						
FDI	-0.0055	1					
LFIND	0.4612	-0.0645	1				
LTOP	0.4481	0.2853	0.2898	1			
INFL	-0.0454	-0.0513	-0.1774	-0.2659	1		
LGEXP	0.2708	0.0086	0.4640	0.4150	-0.1110	1	
HCI	0.8900	-0.0305	0.5549	0.3760	-0.0126	0.3007	1

Source: Authors' Estimation

The absence of strong intercorrelations is particularly relevant when applying the Generalised Method of Moments (GMM) estimator, which is sensitive to multicollinearity and instrument proliferation. A low degree of interdependence among regressors ensures that the instruments remain valid and that the dynamic specification yields efficient and unbiased parameter estimates. This supports the reliability of the model structure adopted to examine how Foreign Direct Investment and Financial Development jointly influence Africa's economic growth—the central focus of this research.

4.3 Panel Unit Root

To ensure the reliability of the econometric estimations and avoid the problem of spurious regression, the study examined the stationarity properties of all variables using panel unit root tests. Establishing stationarity is essential because regressions based on non-stationary data can produce misleading statistical inferences (Gujarati & Porter, 2009). Accordingly, two complementary methods, the Augmented Dickey-Fuller (ADF) and Fisher Chi-square tests, as well as the Levin, Lin & Chu (LLC) test, were applied to determine the order of integration for each variable in the panel dataset.

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Table 3 Panel Unit Root Test

Variable	ADF-Fisher				Levin, Lin & Chu			
	@ Level		@ 1st Difference		@ Level		@ 1st Difference	
	Statistic	p-value	Statistic	p-value	Statistic	p-value	Statistic	p-value
LED	80.0640	0.6599	232.898	0.0000	3.4648	0.0003	-12.4136	0.0000
FDI	90.7391	0.1534	178.8800	0.0000	-1.8798	0.0301	-6.4003	0.0000
FIND	121.231	0.0074	157.7450	0.0000	-2.2838	0.0112	-4.9548	0.0000
LTOP	132.117	0.0010	260.8350	0.0000	-6.1448	0.0000	-16.1974	0.0000
INFL	137.719	0.0001	191.725	0.0000	-7.7247	0.0000	-11.0797	0.0000
LGEXP	107.823	0.0558	218.952	0.0000	-3.5657	0.0002	-8.6310	0.0000
HCI	93.4449	0.2734	190.062	0.0000	-5.8695	0.0000	-8.1924	0.0000

Source: Authors' Estimation

As presented in Table 3, the results indicate that Economic Growth (EG), Foreign Direct Investment (FDI), Credit to the Private Sector (FIND), Government Expenditure (GEXP), and the Human Development Index (HDI) are non-stationary at their levels, but become stationary after first differencing. This suggests that these series are integrated of order one, I(1). Conversely, the variables Trade Openness (TOP) and Inflation (INFL) were found to be stationary at levels, I(0), under the ADF-Fisher test.

The results from the Levin, Lin & Chu (LLC) test also confirm that, while the levels of the series may contain unit roots, all variables become stationary either at the level or after first differencing, depending on the specification. These outcomes indicate a mixed order of integration among the variables, a pattern frequently observed in macroeconomic panel studies covering diverse economies (Pedroni, 2004; Kao, 1999). Despite this mix, the key inference is that all variables achieved stationarity at their first differences, ensuring that they are suitable for further long-run analysis. This outcome validates the decision to proceed to panel cointegration testing, which explores whether a stable long-term equilibrium relationship exists among economic growth, foreign direct investment, financial development, trade openness, inflation, government expenditure, and human development within the African context.

In line with standard panel econometric practice, the forthcoming cointegration analysis includes all variables: both I(0) and I(1), to capture their potential joint long-run dynamics. This approach is particularly relevant for Africa, where macroeconomic indicators often evolve at varying speeds due to differences in institutional quality, market maturity, and policy environments (Nguyen, 2022; Diop et al., 2025). By confirming that the dataset satisfies the necessary stationarity conditions, this test provides a robust foundation for the subsequent estimation of long-run and short-run relationships using appropriate panel cointegration techniques.

4.4 Panel Cointegration Test

The cointegration test to be conducted will involve all the variables The Pedroni Residual Cointegration test (Table 4) is adopted on the variables that become stationary at first difference. Robust evidence of cointegration exists among LGPC, LFDI, LCPS, LGEXP, LINFL, LTOP, and HCI, indicating a long-term equilibrium relationship between economic growth and the explanatory variables (FDI, credit to the private sector, government expenditure. Therefore, there is long-run equilibrium cointegration among the variables.

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Table 4 Panel Cointegration Test Result

Pedroni Residual Cointegration Test				
Series: LEG LFDI LCPS LGEXP LINFL LTOP HCI				
Included observations: 602				
Null Hypothesis: No cointegration				
Alternative hypothesis: common AR coefs. (within-dimension)				
			Weighted	
	Statistic	Prob.	Statistic	Prob.
Panel v-Statistic	-2.533097	0.9943	-7.436063	1.0000
Panel rho-Statistic	3.21805	0.0381	5.435533	1.0000
Panel PP-Statistic	-1.9554	0.0253	-5.6142	0.0000
Panel ADF-Statistic	-3.31977	0.0010	5.85530	0.0261

Source: Authors' Estimation

4.5 The Hausman Test

The decision on the most suitable estimation technique between random effect and fixed effect methods was made through the Hausman test estimation. This test, is conducted under the null hypothesis that the random effect is the preferred estimation technique over a fixed effect, and has significant implications for the research work. The result of the Hausman test, with a Chi-Square value of 87.0362 and a p-value of 0.0030, is important to the decision on the method to use. The p-value result, indicate that the null hypothesis be rejected such that the preferred estimation technique to use is the fixed effect model. Therefore, the fixed effect is the most appropriate method to conduct the panel regression analysis for this study. In line with the confirmation from the Hausman test, the fixed effect is adopted to estimate the impact of foreign direct investment and financial development on the economic growth of African countries. These implications of the Hausman test result are also key to understanding our research findings.

Table 5 – The Hausman Test

Correlated Random Effects - Hausman Test			
Test cross-section random effects			
Test Summary	**Chi-Sq. Statistic**	**Chi-Sq. d.f.**	**Prob.**
Cross-section random	87.0362	6	0.0030

Source: Authors' Estimation

4.6 Fixed Effect Model on the Impact of FDI and FIND on Economic Growth

Table 6 presents the results of the Fixed Effects Model (FEM) used to examine the impact of Foreign Direct Investment (FDI) and Financial Development (FIND) on Economic Growth (EG) across 43 African countries from 2010 to 2024. The fixed-effects specification was chosen to control for country-specific heterogeneity—factors that may differ across nations but remain constant over time, such as institutional quality, geography, or governance structure.

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The results reveal that FDI exhibits a negative and statistically insignificant relationship with economic growth. The coefficient of −0.008 (p = 0.4416) suggests that a 1 percent increase in FDI inflows is associated with a 0.008 percent decline in economic growth, holding other variables constant. Although statistically insignificant, the negative sign aligns with the findings of Hermes and Lensink (2003) and Alfaro et al. (2004), who observed that FDI alone does not automatically stimulate growth in developing economies when domestic financial markets are shallow or institutional frameworks are weak. This outcome reinforces the view that FDI's growth-enhancing effect in Africa depends on the quality of financial systems, absorptive capacity, and macroeconomic stability (Nguyen, 2022).

Table 6 Result of the Impact of FDI and FIND on Economic Growth

Dependent Variable: LEG				
Sample: 2010 2023				
Periods included: 14				
Cross-sections included: 43				
Total panel (unbalanced) observations: 490				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
LFDI	-0.00807	0.01048	-0.77026	0.4416
LFIND	-0.13272	0.04111	-3.22868	0.0013
LTOP	-0.01846	0.03881	-0.47560	0.6346
LINFL	-0.00846	0.00973	-0.86943	0.3851
LGEXP	-0.22340	0.05005	-4.46322	0.0000
HCI	2.37360	0.39919	5.94608	0.0000
C	7.14549	0.32748	21.81955	0.0000
	Effects Specification			
Cross-section fixed (dummy variables)				
R-squared	0.97853	Mean dependent var		7.42813
Adjusted R-squared	0.97619	S.D. dependent var		1.02469
S.E. of regression	0.15812	Akaike info criterion		-0.75630
Sum squared resid	11.02565	Schwarz criterion		-0.33686
Log likelihood	234.2945	Hannan-Quinn criter.		-0.59158
F-statistic	418.6574	Durbin-Watson stat		1.77952
Prob(F-statistic)	0.0000			

Source: Authors' Estimation

Similarly, Financial Development (FIND), measured by credit to the private sector, also displays a negative coefficient of −0.1327, though it is statistically significant at the 5 percent level (p = 0.0013). This implies that a 1 percent increase in credit to the private sector leads to an estimated 0.13 percent decrease in economic growth. While this inverse relationship may appear counterintuitive, it reflects patterns documented in earlier African studies (Diop et al., 2025), which note that rapid credit expansion without strong institutional oversight or productive investment channels can crowd out efficient sectors, heighten non-performing loans, and ultimately constrain growth. In other words, when financial deepening occurs in the absence of financial efficiency or prudent regulation, it can produce adverse macroeconomic outcomes. Among the control variables, Trade Openness (TOP), Inflation (INFLA), and Government

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Expenditure (GEXP) all exhibit negative coefficients (−0.0185, −0.00846, and −0.2234, respectively). However, only Government Expenditure is statistically significant, suggesting that public spending in several African economies may not be efficiently allocated toward growth-enhancing sectors. This finding is consistent with the fiscal inefficiency hypothesis advanced by Barro (1991), which argues that government consumption can sometimes have a crowding-out effect on private investment and productivity when not properly targeted.

In contrast, the Human Capital Index (HCI) displays a positive and statistically significant relationship with economic growth, with a coefficient of 2.3736. This means that a 1 per cent increase in human capital contributes to a 2.37 per cent rise in economic growth, emphasising the crucial role of education, health, and workforce quality in enhancing productivity and fostering sustainable development across Africa. This finding supports endogenous growth theory, which posits that investments in human capital and knowledge accumulation drive long-term economic expansion (Lucas, 1988; Romer, 1990). The Adjusted R-squared value of 0.9762 indicates that approximately 97.6% of the variation in economic growth across the sampled countries is explained by the included variables, signifying a strong overall model fit. Furthermore, the Durbin–Watson statistic of 1.7795 suggests the absence of serious autocorrelation among the residuals, affirming the model's reliability.

Overall, these results underscore that while human capital development remains a key engine of growth, the independent effects of FDI and financial development on Africa's economic performance are not automatically positive. The findings highlight the importance of policy complementarities—especially between foreign direct investment (FDI) attraction, financial sector reforms, and institutional strengthening—to ensure that both FDI inflows and financial deepening translate into sustainable economic progress.

4.7 Fixed Effect Model on the Interacted Effect of FDI and FIND on Economic Growth

Table 7 presents the results of the Fixed Effects Model, which incorporates the interaction term between Foreign Direct Investment (FDI) and Financial Development (FIND) to examine their combined influence on Economic Growth (EG) across African economies during the study period (2010–2024). The coefficient of the interaction term (FDI * FIND) is 0.01422, indicating a positive relationship with economic growth. This suggests that a 1 per cent increase in the joint effect of foreign investment and financial development is associated with a 0.014 per cent rise in economic growth, holding other variables constant. Conceptually, this positive sign supports the theoretical view that financial development enhances the absorptive capacity of host economies, allowing FDI inflows to translate more effectively into productive investments and technology diffusion (Hermes & Lensink, 2003; Alfaro et al., 2004).

However, the corresponding probability value of 0.3830 shows that this effect is statistically insignificant at conventional significance levels. This implies that, while the direction of the relationship is positive, the interaction between FDI and financial development does not exert a statistically measurable impact on economic growth within the sample period. In practical terms, this outcome suggests that Africa's financial systems may not yet be sufficiently deep or efficient to amplify the growth benefits of FDI. The insignificance of the interaction term aligns with findings from earlier studies (Azman-Saini, Law, & Ahmad, 2010; Nguyen, 2022), which observed that the growth-enhancing role of FDI becomes significant only when financial development surpasses a critical threshold. In other words, the absorptive capacity of many African economies—reflected in the depth, accessibility, and efficiency of financial institutions—may still be insufficient to convert foreign capital inflows into broad-based economic expansion fully.

From a policy perspective, this finding underscores the importance of pursuing financial sector reforms in tandem with FDI promotion strategies. Improving credit allocation mechanisms, strengthening financial regulations, and deepening domestic capital markets could help ensure that foreign investments interact positively with domestic financial systems to generate sustainable growth.

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Table 7 Result of the Interacted Impact of FDI and FIND on Economic Growth

Dependent Variable: LEG				
Sample: 2010 2023				
Periods included: 14				
Cross-sections included: 43				
Total panel (unbalanced) observations: 490				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
LFDI	-0.04879	0.04779	-1.02088	0.3079
LFIND	-0.14724	0.04435	-3.31977	0.0010
LFDI*LFIND	0.01422	0.01628	0.87328	0.3830
LTOP	-0.01712	0.03885	-0.44069	0.6597
LINFL	-0.00959	0.00982	-0.97636	0.3294
LGEXP	-0.22320	0.05007	-4.45794	0.0000
HCI	2.34554	0.40059	5.85530	0.0000
C	7.20009	0.33348	21.59054	0.0000
	Effects Specification			
Cross-section fixed (dummy variables)				
R-squared	0.97856	Mean dependent var		7.42813
Adjusted R-squared	0.97618	S.D. dependent var		1.02469
S.E. of regression	0.15816	Akaike info criterion		-0.75395
Sum squared resid	11.00657	Schwarz criterion		-0.32595
Log likelihood	234.7187	Hannan-Quinn criter.		-0.58586
F-statistic	409.9082	Durbin-Watson stat		1.67708
Prob(F-statistic)	0.00000			

Source: Authors' Estimation

5.0 CONCLUSION AND RECOMMENDATIONS

This study examined the role of Foreign Direct Investment (FDI) and Financial Development (FIND) in both individual and interactive effects on Economic Growth (EG) in forty-three (43) African countries from 2010 to 2024. Using panel data and fixed-effects estimation, the research aimed to determine whether Africa's growing financial systems enhance the capacity of FDI to promote sustainable economic growth.

The findings reveal a complex relationship among the variables. FDI displayed a negative but statistically insignificant effect on economic growth, implying that inflows of foreign investment alone have not consistently translated into higher output. This supports earlier evidence (Hermes & Lensink, 2003; Alfaro et al., 2004) that the benefits of FDI depend on the host country's absorptive capacity, particularly the efficiency of its financial systems, institutional quality, and macroeconomic stability. Similarly, Financial Development was found to have a negative but statistically significant relationship with economic growth. This suggests that, while Africa's financial systems have expanded, they remain fragile and uneven in efficiency. Weak regulation, high lending costs, and limited access to credit mean

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that financial deepening often fails to stimulate productive investment. This result is consistent with Diop et al. (2025), who observed that banking growth without sound governance may suppress rather than support real-sector performance.

When the interaction term (FDI*FIND) was introduced, the coefficient turned positive but statistically insignificant. This implies that although financial development may enhance FDI's potential contribution to growth, the combined effect remains weak across the continent. The finding echoes that of Azman-Saini, Law, and Ahmad (2010), who concluded that the growth effect of FDI becomes significant only when financial development surpasses a certain threshold level. Hence, Africa's financial systems may still be too shallow to fully harness foreign capital for sustainable development.

Among the control variables, the Human Capital Index (HCI) had a strong, positive, and significant influence on growth, underscoring the importance of education, health, and skills formation. In contrast, Government Expenditure (GEXP) showed a significant negative impact, suggesting that much public spending in Africa is not growth-enhancing, likely due to inefficiency, corruption, or a lack of productivity focus. Trade Openness and Inflation had negative but insignificant relationships, indicating that trade and price volatility continue to pose structural challenges.

The study made the following recommendations: firstly, Enhance Financial Sector Efficiency.

African policymakers should prioritise the quality of financial intermediation rather than its sheer size. Deepening access to credit for productive sectors, improving risk management, and strengthening supervision can ensure that financial development supports innovation and enterprise growth (Beck, Levine, & Loayza, 2000). Secondly, Attract Quality-Enhancing FDI

Rather than focusing solely on inflow volumes, governments should target productive and technology-intensive FDI. Sectors such as manufacturing, renewable energy, and ICT should receive priority, as they create spillovers that foster innovation and job creation (Alfaro et al., 2004). Thirdly, effective institutions and governance remain the cornerstone of economic transformation. Strengthening legal systems, property rights, and transparency will not only improve investor confidence but also enhance the synergy between FDI and domestic finance.

Fourthly, invest in Human Capital. Given the strong positive link between human capital and growth, increased investment in education, technical skills, and healthcare is essential. As Lucas (1988) and Romer (1990) emphasise, human capacity is the foundation for innovation and the adoption of technology; lastly, Reallocate Public Expenditure. The adverse effect of government expenditure suggests inefficiencies in fiscal management. Redirecting public resources toward infrastructure, research, and capacity-building will yield better growth outcomes and crowd in private investment.

In summary, the study concludes that Africa's growth potential lies not simply in attracting foreign investment or expanding credit, but in creating an enabling environment where financial systems, institutions, and human capital interact effectively. Policies should therefore be sequenced and coordinated to build a robust financial infrastructure that can channel both domestic and foreign capital into productive, inclusive, and sustainable growth paths.

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