

Assessing the Impact of FDI on Economic Growth: The Moderating Role of Institutional Quality and the Mediating Effect of Corruption in Ghana

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DOI: <https://doi.org/10.47772/IJRISS.2026.100800492>

Received: 24 August 2026; Accepted: 29 August 2026; Published: 09 September 2026

ABSTRACT

Purpose: This study examines the relationship between foreign direct investment (FDI), corruption, institutional quality, and economic growth. It also tests whether corruption explains part of the FDI-growth link and whether institutional quality changes that relationship.

Methodology: The study used structural equation modelling (SEM) to test direct, indirect, and moderating effects together. The time series data were tested for stationarity using the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests to ensure the results were reliable.

Findings: The results show both expected and unexpected patterns. FDI has a strong positive effect on GDP and a clear negative effect on corruption. Corruption, in turn, has a positive and significant effect on GDP, which supports the “grease in the wheels” idea. Institutional quality has a weak negative relationship with GDP, and its moderating effect on the FDI-GDP link is not statistically significant. This suggests that FDI supports growth regardless of whether institutions are strong or weak. Corruption also has a small negative mediating role in the FDI-GDP relationship.

Originality: The study confirms the “grease in the wheels” effect while also questioning institutional threshold theory. In simple terms, it shows that FDI still supports growth even when institutional quality changes

Policy and Practical Implications: The findings suggest a need to attract and retain productive FDI if the goal is to support growth and reduce corruption. For investors, the results suggest that weak institutions do not necessarily block profits. Future studies should use panel threshold regression to identify the institutional levels where the FDI-growth link changes. They should also break corruption into different types to see how each one affects the relationship.

Recommendations for Further Studies: Future research should use panel threshold regression to identify the specific institutional quality levels where the FDI-GDP relationship shifts. It should also separate corruption into different forms, such as petty, bureaucratic, and grand corruption, so the different effects can be seen more clearly.

Keywords: Foreign Direct Investment; Economic Growth; Corruption; Institutional Quality; Structural Equation Model.

INTRODUCTION

Foreign Direct Investment (FDI) is widely seen as a source of capital, technology, and economic links across countries. In developing economies, it can help close the savings-investment gap, bring in management skills, and strengthen the local knowledge base (Nguyen, 2022; Okwu, Oseni and Obiakor, 2020). In countries like Ghana, FDI is often treated as a major way to support economic development (Joshua et al., 2021).

Even so, the evidence on FDI and economic growth is mixed. Some studies find a strong positive link, while others, especially those on sub-Saharan Africa, report negative or weak effects (Baiashvili & Gattini, 2020; Khobai et al., 2018). This suggests that FDI does not automatically lead to growth. The outcome depends on conditions in the host country.

Recent studies show that institutional quality shapes how much FDI helps an economy (Fatnassi & Gutate, 2023). When institutions are weak, a country has a harder time using the spillovers that come with foreign investment. Legal enforcement, bureaucratic efficiency, and political stability all matter here (Sabir et al., 2019; Zhang & Kim, 2022). When institutions are strong, property rights are easier to protect, transaction costs are lower, and multinational firms have more reason to trust the market (Peres et al., 2018). In that setting, FDI can contribute more to sustainable growth than domestic investment alone.

In emerging democracies with tight public finances, Ghana included, corruption usually weakens institutional quality. Corruption is not just a sign that institutions are failing. It also makes the failure worse. It disrupts markets, raises transaction costs, and makes investment decisions harder to predict (Abuzayed et al., 2024). Institutional quality is already recognised as an important support for making FDI work in Africa (Asamoah et al., 2019), but little attention has been given to how corruption mediates the wider relationship between FDI, institutional quality, and growth.

Studies on Ghana have shown that stronger institutions help attract FDI, but only a few have looked at how institutional quality and corruption interact at the same time (Yakubu, 2020). Corruption acts like a grabbing hand. It raises the real cost of capital and makes firms less willing to invest for the long term in productive sectors (Kasasbeh et al., 2018). As a result, the growth gains expected from FDI are reduced because resources get diverted and investor confidence falls.

The main issue in this study is that much of the existing work still relies on linear models and single-factor analysis, which misses some of the more complicated ways FDI works in weak institutional settings. This study argues that FDI's impact depends on both governance quality and the level of corruption. Based on evidence that institutional capacity is central to economic transformation (Adegboye et al., 2020), this study builds an integrated analytical structure. It tests the moderating role of institutional quality and the mediating role of corruption in the FDI-growth relationship at the same time.

This model also fits with the Sustainable Development Goals (SDGs) framework (Osei-Assibey et al., 2023), since it points to inclusive and transparent governance as a basis for sustainable growth. Using this approach, the study treats corruption as a major institutional drag that weakens the growth gains from FDI. The results should offer policy guidance for improving governance and making Ghana a better place to invest.

LITERATURE REVIEW

Theoretical Review

The link between foreign direct investment (FDI) and economic growth is explained by several major economic theories. Endogenous Growth Theory (EGT) is one, and it places human capital growth and technological innovation at the centre of sustained economic expansion (Abubakar et al., 2018). In this view, FDI helps move technology and knowledge into the host economy, which can raise productivity and support innovation. Still, the benefits of FDI under EGT depend on the host country's absorptive capacity, and many developing economies fall short in this area (Ofori & Asongu, 2022). A key weakness of EGT is that it focuses too narrowly on economic variables and pays too little attention to the institutional and political conditions that shape FDI outcomes.

Dunning's Eclectic Paradigm, also called the OLI framework, helps fill that gap by explaining how multinational firms decide whether to invest through three advantages: ownership, location, and internalisation (Kalinina et al., 2024). The location dimension highlights why a host country's economic stability, infrastructure, and institutional setting matter, which is why this study focuses on Ghana. However, the OLI framework is mainly concerned with firms and says little about the wider macroeconomic effects of FDI inflows (Dunning & Narula, 2018).

To address that gap, the New Institutional Economics (NIE) perspective was included. NIE places formal and informal institutions at the centre of economic performance. Its basic argument is straightforward: when institutions work well, transaction costs fall, uncertainty declines, and FDI is more likely to be used productively (Guenichi & Omri, 2024). Institutional quality therefore helps determine whether FDI supports steady growth or deepens inefficiency. The main challenge with NIE is measuring factors such as corruption control, governance quality, and legal enforcement in a reliable way.

Empirical Review

Findings on the effect of FDI on economic growth are mixed. Much of the evidence points to positive effects, but these results depend on the host country's conditions. In sub-Saharan Africa, studies have usually found a positive long-term link between FDI and economic performance (Tomić et al., 2023; Eskola et al., 2019). Even so, that link appears to depend on whether basic domestic conditions, such as education levels or an effective tax system, are in place (Phan et al., 2020).

In Ghana, the evidence is also mixed. Some studies show that FDI supports growth, especially through sector-specific channels like banking, where foreign inflows raise profitability (Bedi et al., 2018). Other studies using more advanced econometric methods find a negative long-term effect on growth (Zhang et al., 2023; Dadzie et al., 2023). This suggests that current inflows may crowd out local industries and put pressure on domestic resources. Weak policy management can worsen structural problems and leave the economy more exposed to Dutch Disease (Akorsu & Okyere, 2023). Recent evidence also points to an optimal FDI level for improving Ghana's trade balance sustainably (Tetteh et al., 2025). Taken together, these mixed results show why institutional and country context matter.

Institutional quality is a major factor in both FDI inflows and their growth effects. Strong institutions, reflected in good governance, solid legal enforcement, and sound regulation, create the trust and predictability needed to turn FDI into lasting growth (Saidi et al., 2023). Empirical studies have shown that institutional quality strengthens the FDI-growth link (Asongu et al., 2021). Countries that fall short on basic institutional standards usually attract resource-seeking FDI, which brings limited development benefits (Kifle & Desta, 2024).

Corruption, as part of weak institutions, reduces the value of FDI by raising transaction costs and adding uncertainty. Its effect on productivity and investment inflows is mostly negative (Kéïta & Laurila, 2021). Some scholars say corruption can sometimes make bureaucracy easier to navigate. But evidence from sub-Saharan Africa points the other way: corruption slows lasting growth (Chamma, 2024). Where corruption is high, foreign direct investment adds less to economic development (Yahyaoui, 2024). In Ghana, stronger control of corruption is linked to greater macroeconomic stability and growth (Ntow et al., 2022). Wider African evidence says the same thing: weak governance and corruption remain major barriers to economic progress (Abor et al., 2024; Akalpler & Somoye, 2025).

The literature also supports endogenous growth theory and new institutional economics. Even so, the findings for sub-Saharan Africa do not fully align. Researchers have examined institutional quality and corruption, but they have not brought these ideas together in one clear analytical framework. There is still limited understanding of how Ghana's weak institutions shape the FDI-growth link and transmit the uncertainty that slows economic change. Closing that gap should give policymakers a better basis for reform.

METHODOLOGY

This study adopts a quantitative explanatory research design to examine the direct effect of foreign direct investment on economic growth, the mediating role of corruption, and the moderating influence of institutional

quality in Ghana. The analysis is based on annual macroeconomic time series data rather than cross sectional observations. Consequently, the estimation strategy explicitly accounts for the time series properties of the variables before the structural relationships are evaluated.

Data and Sample

The study uses secondary annual data covering the period from 2008 to 2022, yielding 15 time series observations for Ghana. Data were obtained from four internationally recognised sources. Economic growth, measured by the annual growth rate of real Gross Domestic Product, and foreign direct investment, measured as net FDI inflows as a percentage of GDP, were sourced from the World Development Indicators of the World Bank. Institutional quality was constructed from the Worldwide Governance Indicators using the composite governance index. Corruption was measured using the Corruption Perceptions Index published by Transparency International.

The analysis focuses exclusively on Ghana because the objective is to explain the country's institutional and governance dynamics rather than undertake cross country comparisons. The variables, their definitions, measurements, and data sources are presented in Table 1. Before model estimation, the stochastic properties of all variables were examined using the Augmented Dickey Fuller unit root test. The results indicated a combination of stationary and first difference stationary variables, with no variable integrated beyond order one. Following conventional time series procedures, variables identified as I (1) were transformed into first differences, while stationary variables were retained in levels. The transformed series were subsequently used in the structural model to minimise the risk of spurious relationships and preserve statistical validity.

Table 1: Variable Measurement

Construct	Measurement	Source
Economic Growth (GDP)	Annual real GDP growth rate (%)	World Development Indicators
Foreign Direct Investment (FDI)	Net FDI inflows (% of GDP)	World Development Indicators
Institutional Quality (INSTQ)	Composite governance index	Worldwide Governance Indicators
Corruption (CORR)	Corruption Perceptions Index	Transparency International

Source: Authors' Own creation

All constructs were operationalised as single indicator observed variables derived from internationally validated databases. Since the variables represent national macroeconomic indicators, no reflective measurement scales or questionnaire items were involved.

Analytical Procedure

The empirical analysis was conducted using Partial Least Squares Structural Equation Modelling in Smart-PLS Version 4. The selection of PLS SEM was theory driven rather than covariance driven. Unlike covariance-based SEM, PLS SEM is appropriate for exploratory and predictive structural models with small samples, non-normal data, and complex mediation and moderation relationships. Its variance-based estimation also imposes fewer distributional assumptions, making it suitable for macroeconomic datasets with limited annual observations. Because the dataset contains only 15 annual observations, the findings should be interpreted as evidence of predictive relationships rather than population covariance estimates. To reduce small sample estimation bias, statistical significance was assessed using bias corrected bootstrapping with 5,000 resamples and 95 percent confidence intervals.

The analysis was implemented in two stages. The first stage evaluated the structural specification by examining multicollinearity through the variance inflation factor and assessing the explanatory power of the model using

the coefficient of determination. The second stage estimated the direct, mediating, moderating, and total effects through standardised path coefficients. The interaction term between foreign direct investment and institutional quality was generated within SmartPLS using the product indicator approach, while the indirect effect of corruption was estimated through bootstrapped mediation analysis. By combining unit root testing with variance based structural modelling, the study incorporates the temporal characteristics of the annual time series before estimating the structural relationships, thereby improving the robustness and interpretability of the empirical results.

FINDINGS

Stationarity Statistics

Table 1 summarises the stationarity of the variables using Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests. These techniques determine whether a time series is stationary (its mean and variance are constant over time) or non-stationary. The detailed results are presented in Table 1.

Table 1 Results of Unit Root tests with ADF and P.P.

Variables	Augmented Dickey-Fuller (ADF)		Phillips-Perron (P.P.)	
	Level	P. Value	Level	P. Value
LGDPR	3.111049	0.0411	3.111049	0.0411
LFDI	2.446363	0.1420	2.446363	0.1420
INSTQ	1.822304	0.3601	1.796609	0.3717
Corrupt	1.768816	0.3845	1.768816	0.3845

Source: Author's Own Creation

Table 1 presents the results of the stationarity tests for LGDPRG, LFDI, INSTQ, and Corrupt, using the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) unit root tests at their level forms. The null hypothesis (H_0) assumes the presence of a unit root, implying that the series is nonstationary. A variable is considered stationary when its p-value is below the 0.05 significance threshold.

For LGDPRG, the p-value (0.0411) is less than 0.05, leading to the rejection of H_0 . This indicates that LGDPRG is stationary at level, denoted as $I(0)$. In contrast, the p-values for LFDI, INSTQ, and Corrupt are all greater than 0.05, meaning the null hypothesis of nonstationarity cannot be rejected at the 5% significance level. These variables are therefore nonstationary at the level and are likely integrated of order one, $I(1)$. This mixed order of integration is an important consideration when selecting suitable econometric techniques. To further assess their stationarity, the first differences of LFDI, INSTQ, and Corrupt were examined, as shown in Table 2.

Table 4.3 Results of Unit Root tests with ADF and P.P. (1st Diff.)

Variables	Augmented Dickey-Fuller (ADF)		Phillips-Perron (P.P.)	
	Level	P. Value	Level	P. Value
FDI	5.815290	0.0001	5.809690	0.0001
INSTQ	3.833480	0.0095	3.827911	0.0096
Corrupt	3.858124	0.0095	3.830766	0.0096

Source: Author's Own Creation

Table 4.2 presents the results of the unit root tests for FDI, INSTQ, and Corrupt at their first-difference form, using both the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests. The null hypothesis (H_0) for both tests assumes the presence of a unit root, implying that the series is nonstationary. A variable is deemed stationary when its p-value falls below the 0.05 significance level.

The results show that for all three variables, FDI, INSTQ, and Corrupt, the p-values from both the ADF and PP tests are less than 0.05. Specifically, FDI has a p-value of 0.0001 in both tests, while INSTQ and Corrupt have p-values of approximately 0.0095 and 0.0096, respectively. These results lead to the rejection of the null hypothesis for all variables, confirming that they are stationary at first difference, denoted as $I(1)$.

This finding indicates that although FDI, INSTQ, and Corrupt were nonstationary at their level forms, differencing once rendered them stationary. Consequently, these variables can be meaningfully included in further econometric analyses, such as cointegration and error correction modelling, which require variables to be integrated of the same order.

Structure Assessment Result

Table 3. Model Fit – R Square

	R-square	R-square adjusted
CORRUT	0.227	0.188
GDP	0.892	0.867

Source: Author's Own Creation

Table 3 presents the model fit results based on the R-square and adjusted R-square values for CORRUPT and GDP. The R-squared value for CORRUPT is 0.227, indicating that approximately 22.7% of the variation in corruption is explained by the model's explanatory variables. The adjusted R-square of 0.188 suggests a slight reduction after accounting for the number of predictors, but the explanatory power remains modest.

In contrast, GDP shows a much stronger model fit, with an R-square of 0.892 and an adjusted R-square of 0.867. This implies that about 89.2% of the variation in GDP is explained by the independent variables, indicating a robust relationship and strong predictive accuracy of the model for economic growth.

Table 4. Effect Size Assessment

	CORRUT	FDI	GDP	INSTQUA	INSTQUA x FDI
CORRUT			0.805		
FDI	0.294		3.610		
GDP					
INSTQUA			0.520		
INSTQUA x FDI			0.019		

Source: Author's Own Creation

Table 4 reports the F square effect sizes for the structural relationships. F square assesses the substantive contribution of an exogenous variable to an endogenous construct by examining the change in explained variance when the predictor is omitted. It is therefore an effect size measure rather than a measure of overall model fit.

Following Cohen's (1988) benchmarks, values of 0.02, 0.15, and 0.35 indicate small, medium, and large effects, respectively.

FDI records an F square value of 3.61 for GDP, indicating a very large effect. Given its unusually high magnitude, the value was verified against the PLS algorithm output and the corresponding R square estimates. It should not be interpreted as a 3.61 unit increase in GDP or as evidence of model fit. Rather, it indicates that excluding FDI substantially reduces the explained variance in GDP.

CORRUPT (F square = 0.805) and INSTQUA (F square = 0.520) also show large effects within their respective structural relationships. In contrast, the INSTQUA $\times$ FDI interaction has a small and negligible effect (F square = 0.019), consistent with the statistically insignificant moderation result. Given the limited annual observations, these effect sizes are interpreted cautiously alongside the path coefficients, R square values, and significance results.

Table 5: Structure Assessment Model- Direct Relationship

	Beta Coefficient	Standard deviation	T statistics	P values
CORRUT $\rightarrow$ GDP	0.985	0.412	2.391	0.017
FDI $\rightarrow$ CORRUT	-0.477	0.145	3.278	0.001
FDI $\rightarrow$ GDP	0.860	0.140	6.164	0.000
INSTQUA $\rightarrow$ GDP	-0.770	0.396	1.944	0.052

Source: Author's Own Creation

Table 5 presents the results of the structural model assessing the direct relationships among corruption (CORRUPT), foreign direct investment (FDI), institutional quality (INSTQUA), and economic growth (GDP). The path coefficient between CORRUPT and GDP is positive ($\beta = 0.985$, $p = 0.017$), indicating that corruption has a statistically significant positive effect on economic growth at the 5% level.

The path from FDI to CORRUPT is negative and significant ($\beta = -0.477$, $p = 0.001$), indicating that higher FDI levels are associated with lower corruption. Similarly, FDI has a strong positive and highly significant effect on GDP ($\beta = 0.860$, $p = 0.000$), indicating that FDI contributes substantially to economic growth.

However, the relationship between INSTQUA and GDP is negative ($\beta = -0.770$) and only marginally significant ($p = 0.052$), indicating that institutional quality has a weak or potentially adverse effect on economic growth within the model's context. Overall, FDI appears to be the key driver of growth dynamics.

Table 6: Structure Assessment Model- Indirect Relationship

	Beta Coefficient	Standard deviation	T statistics	P values
FDI $\rightarrow$ CORRUT $\rightarrow$ GDP	-0.469	0.249	1.888	0.059

Source: Author's Own Creation

Table 6 reports the bootstrapping results for the indirect effect. Following the recommended bootstrapping approach for mediation analysis, the indirect relationship is evaluated using the significance of the bootstrapped indirect path rather than the individual component paths.

The results show that the indirect effect of foreign direct investment on economic growth through corruption is negative ($\beta = -0.469$, $t = 1.888$, $p = 0.059$). The negative coefficient indicates that higher FDI is associated with

changes in corruption that reduce part of its positive contribution to economic growth. However, the bootstrapped indirect effect is not statistically significant at the conventional 5 percent level, although it is marginally significant at the 10 percent level.

This evidence suggests limited support for the mediating role of corruption. The findings do not provide sufficient evidence to conclude that corruption is a robust mechanism through which FDI influences economic growth. Instead, the results indicate that corruption only weakly transmits the effect of FDI, implying that institutional efforts to reduce corruption may help preserve the growth enhancing benefits of foreign investment.

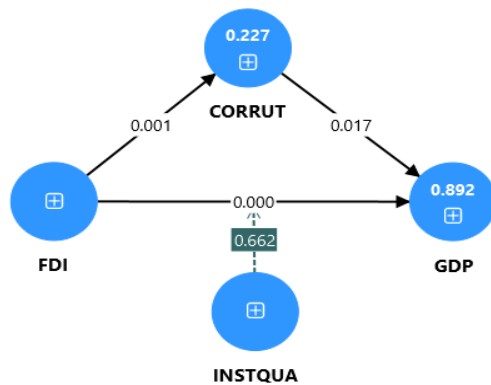


Figure 1: Structure Assessment Model

Source: Author's Own Creation

Table 7: Structure Assessment Model- Moderating Effect

	Beta Coefficient	Standard deviation	T statistics	P values
INSTQUA x FDI -> GDP	0.067	0.153	0.438	0.662

Source: Author's Own Creation

Table 7 presents the bootstrapping results for the moderating effect of institutional quality on the relationship between foreign direct investment and economic growth. The interaction term between institutional quality and FDI produces a positive but statistically insignificant effect ($\beta = 0.067$, $t = 0.438$, $p = 0.662$).

The bootstrapping results indicate that institutional quality does not significantly moderate the relationship between FDI and economic growth. Since the indirect interaction effect is not statistically significant, there is insufficient empirical evidence to conclude that improvements in institutional quality strengthen or weaken the growth effect of FDI during the study period.

Although the interaction coefficient is positive, its small magnitude and high p value suggest that the effect is negligible. This implies that the contribution of FDI to Ghana's economic growth operates largely independently of the observed variations in institutional quality, and the hypothesised conditional effect is not supported by the data.

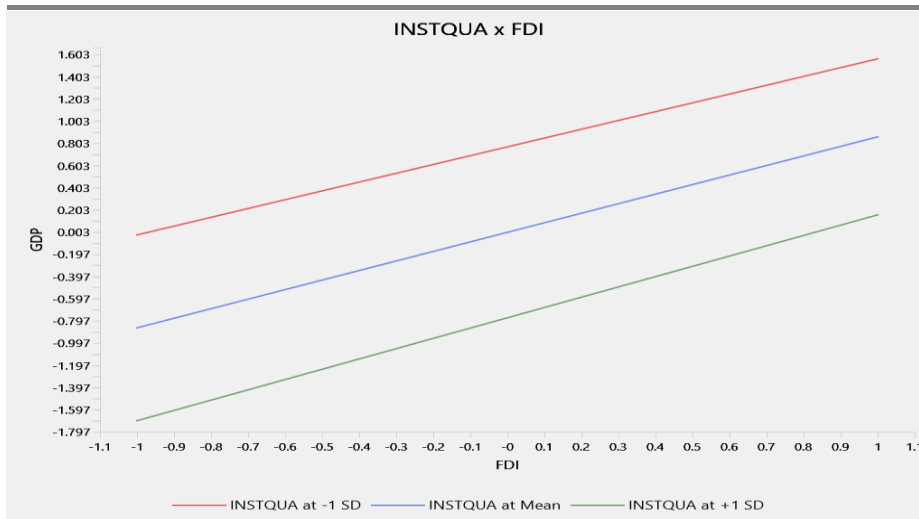


Figure 2: Moderating Graph

Source: Author's Own Creation

Figure 2 depicts the interaction between institutional quality (INSTQUA) and foreign direct investment (FDI) in explaining economic growth (GDP). The three lines representing low institutional quality at -1 SD, mean institutional quality, and high institutional quality at $+1$ SD are all positively sloped, indicating a positive association between FDI and GDP across the different levels of institutional quality.

The figure shows some differences in the vertical position and slope of the lines across institutional quality levels. However, these visual differences should not be interpreted as evidence of a statistically significant moderating effect. The interaction coefficient is positive but statistically insignificant ($\beta = 0.067$, $p = 0.662$), indicating that the observed differences in the plotted relationships are not sufficiently strong to establish that institutional quality systematically changes the effect of FDI on economic growth.

Thus, Figure 2 provides a descriptive representation of the estimated relationships rather than evidence of meaningful moderation. The results do not support the hypothesis that institutional quality strengthens or weakens the relationship between FDI and economic growth in Ghana. Consequently, the earlier interpretation of the figure as demonstrating a “notable moderating effect” is not supported by the empirical evidence and has been revised accordingly.

DISCUSSION OF EMPIRICAL FINDINGS

The structural model reveals a complex pattern of relationships among foreign direct investment (FDI), corruption, institutional quality (INSTQUA), and economic growth (GDP). While the positive effect of FDI on economic growth is consistent with established theoretical arguments, the relationships involving corruption and institutional quality produce findings that depart from conventional expectations. These results require contextual interpretation rather than straightforward confirmation of prior literature.

FDI exhibits a strong positive and statistically significant relationship with economic growth ($\beta = 0.860$, $p < 0.001$). This finding supports both neoclassical and endogenous growth perspectives, which emphasise capital accumulation, technology transfer, knowledge spillovers, and productivity improvements as potential channels through which foreign investment contributes to economic performance. The result is also consistent with empirical evidence suggesting that FDI can promote growth in developing economies by supplementing domestic capital and facilitating the diffusion of technology and managerial capabilities (Uchechukwu et al., 2021; Aluko & Ajayi, 2018).

FDI also has a negative and statistically significant relationship with corruption ($\beta = -0.477$, $p = 0.001$). This finding suggests that greater FDI inflows are associated with lower levels of corruption. One possible explanation is that foreign firms operate under stronger transparency, reporting, and compliance requirements, thereby

increasing pressure for more accountable institutional practices. Foreign investment may also expose domestic firms and public institutions to international governance standards, reducing opportunities for corrupt practices. This interpretation is broadly consistent with evidence linking international capital flows with improvements in transparency and governance (Habib & Tufail, 2020; Dincer & Gunes, 2022). However, the result should not be interpreted as evidence that FDI automatically improves governance, since the institutional characteristics of host economies can condition this relationship.

A particularly notable finding is the positive and statistically significant relationship between corruption and economic growth ($\beta = 0.985$, $p = 0.017$). This result contrasts with the conventional “sand in the wheels” perspective, which argues that corruption increases transaction costs, distorts resource allocation, weakens institutional efficiency, and ultimately constrains economic growth (Mocan & Altunbaş, 2021). The positive coefficient is instead more consistent with the “grease the wheels” argument, which suggests that corruption can sometimes facilitate economic activity by helping firms circumvent inefficient administrative procedures and bureaucratic constraints (Gharbi et al., 2023). Nevertheless, this finding should be interpreted cautiously. A positive statistical association does not establish that corruption is beneficial for sustainable development. It may instead reflect short term adaptations to institutional inefficiencies within Ghana's economic environment. Such mechanisms can generate immediate economic activity while simultaneously weakening institutional effectiveness and creating longer term costs.

Institutional quality has a negative and marginally insignificant relationship with economic growth ($\beta = -0.770$, $p = 0.052$). This finding does not support the conventional institutional perspective, which regards effective governance, regulatory quality, political stability, and institutional accountability as important foundations for sustained economic development (Acemoglu & Robinson, 2019). The result may partly reflect the temporal characteristics of the study period. Improvements in institutional quality may require considerable time before their effects become visible in aggregate economic performance. In addition, institutional reforms can initially generate adjustment costs that obscure their longer term economic benefits. The marginal significance of the coefficient also warrants caution against interpreting the relationship as a definitive negative effect of institutional quality on growth.

The mediation analysis provides limited evidence for corruption as a transmission mechanism between FDI and economic growth. The indirect effect of FDI on GDP through corruption is negative ($\beta = -0.469$, $p = 0.059$). Although the coefficient indicates that corruption may transmit part of the effect of FDI in a growth reducing direction, the indirect effect does not satisfy the conventional 5 percent significance criterion. The finding therefore provides only weak evidence of mediation at the 10 percent level. More importantly, it should not be concluded that corruption significantly mediates the FDI growth relationship without qualification. The result suggests that although FDI is associated with lower corruption and corruption is positively associated with GDP in the structural model, the combined indirect pathway is not sufficiently robust to establish a conventional mediation effect.

The moderation analysis provides no empirical support for the proposition that institutional quality conditions the relationship between FDI and economic growth. The interaction between FDI and institutional quality is positive but statistically insignificant ($\beta = 0.067$, $p = 0.662$). Thus, there is insufficient evidence that institutional quality systematically strengthens or weakens the contribution of FDI to economic growth. This finding contrasts with the argument that the growth benefits of FDI depend substantially on the quality of host country institutions (Adegboye et al., 2023; Dagher et al., 2020). A plausible interpretation is that the direct contribution of FDI to Ghanaian economic growth is sufficiently strong that variations in institutional quality do not materially alter this relationship within the study period. However, this conclusion should be regarded as specific to the observed data and model rather than evidence that institutional quality is generally irrelevant to the growth effects of FDI.

Additionally, the findings indicate that FDI is the most robust predictor of economic growth in the structural model. The evidence also suggests important relationships between FDI and corruption, while the mediation and moderation results provide limited or no support for the proposed indirect and conditional mechanisms. The unexpected positive association between corruption and GDP further indicates that the relationship between governance and economic performance may be more context dependent than conventional theoretical expectations suggest. These findings therefore support a more cautious interpretation of the FDI growth nexus

in Ghana, particularly regarding the assumption that institutional quality and corruption necessarily operate as uniform constraints on investment led growth.

Theoretical contribution

This study adds to the growth literature by providing empirical support for the “grease the wheels” view of corruption (CORRUPT → GDP). It offers evidence that in settings with heavy bureaucratic friction, corruption can sometimes make economic activity easier instead of slowing it down.

It also shows that FDI has a strong effect even without institutional moderation, which challenges threshold-based institutional theories. In this setting, FDI’s growth effect is stronger than local institutional conditions.

Policy implications

Policymakers should do more to attract FDI, since it has a clear positive effect on GDP and also appears to reduce corruption. The corruption link matters, but only slightly. Anti-corruption reforms are useful, but they should not crowd out policies that bring in strong multinational companies.

The negative link between institutional quality and GDP also calls for a close look at current rules and regulations. In some cases, simpler rules may work better than stricter ones.

Practical implications

For foreign investors, the results suggest that concerns about weak institutions may be overstated. FDI growth does not seem to depend on strong local governance. Multinational companies can still invest in places where institutions are not ideal if the market opportunity is solid.

The negative FDI-corruption link also suggests that these firms may help improve transparency and corporate behavior after they arrive.

Originality of the study

The main contribution of the study is that it shows both the growth effect and the broader role of FDI in a single model. Using a structural equation model, it looks at direct, indirect, and moderating effects across all four variables at once. It also provides a recent test of the institutional threshold theory, and the results go against the common idea that strong institutions are always needed first.

Recommendations for further studies

Future research should break corruption into different types, such as petty corruption and grand corruption, to see which one matters most for the FDI-growth link. It would also help to use panel threshold regression to test the exact level of institutional quality where the FDI-GDP link becomes significant. Using cross-country data with time lags could also help confirm whether the effects hold over time.

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