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# FDI, Corruption And Tax Revenue Performance In Nigeria And Kenya

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***Abstract***
*The study's aim is to investigate the moderating influence of corruption in the relationship between foreign direct investment and tax revenue performance in Nigeria and Kenya. The ex-post factor research design was used in this study. The data was secondary in nature, spanning the years 2012 to 2023 and collected from the World Bank Group and Transparency International. Data was analysed using descriptive, correlation, and regression methods. According to the report, foreign direct investment (FDI) has a positive and significant influence on Nigerian tax income. Furthermore, corruption was shown to have a substantial role in moderating the influence on FDI and tax revenue performance in Nigeria; however, this function was negative, implying that higher levels of corruption may lower the positive impact of FDI on tax revenue performance. Evidence from Kenya suggests that FDI and corruption have a beneficial but negligible influence on tax revenue performance. Additionally, corruption was revealed to play a negative moderating influence in the relationship between FDI and tax revenue performance. Based on the findings, the report suggests enacting strong anti-corruption legislation and regulations, increasing government openness, and strengthening anti-corruption agencies.*
***Keywords:*** *Foreign direct investment, corruption, tax revenue performance*

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## I. Introduction

FDI has long been recognized as a major force behind economic growth and development in developing countries (OECD, 2023; UNCTAD, 2024). FDI inflows provide host countries with access to capital, management expertise, and technology that can improve productivity, export performance, and job creation (Egwakhe & Odunsi, 2019; Camara, 2023). In order to strengthen their economies, some developing nations, such as Nigeria and Kenya, have aggressively sought measures to draw foreign direct investment.

The threat of corruption, which has been generally recognized as a significant impediment to economic growth, does not, however, exclude FDI flows (Helmy, 2013; Spyromitros & Panagiotidis, 2022). Bribery and embezzlement are two examples of corrupt behaviours that might skew FDI flows and limit their potential benefits to the host nations (Malanski & Póvoa, 2021; Sunkanmi & Isola, 2014). Indeed, by providing avenues for rent-seeking and collusive practices, FDI may potentially make corruption worse (Ketkar, Murtuza, & Ketkar, 2005; Pratomo, 2020).

The effect that corruption has on tax revenue performance is one of its detrimental effects. It is anticipated that tax income would rise in tandem with FDI inflows as economic activity rises (Camara, 2023; Wijaya & Dewi, 2022). However, by fostering rent-seeking practices like tax evasion and avoidance, corruption can lower revenue collection (Alabede, 2018; Alemu, 2012). Governments may lose a large portion of their potential tax income as a consequence, which might have a detrimental impact on economic growth and leave less money available for public spending (Gnangnon, 2021).

Particularly in developing nations, studies on how corruption and foreign direct investment affect tax revenue performance is growing in popularity (Ketkar et al., 2005; Neog & Gaur, 2021). Kenya and Nigeria have seen varying degrees of corruption and foreign direct investment inflows over time. Even though both nations have seen a rise in foreign direct investment, corruption is still a significant problem. Nigeria and Kenya, which ranked 149th and 146th out of 180 nations, respectively, have significant levels of perceived corruption, according to Transparency International's 2019 Corruption Perceptions Index (Transparency International, 2022). The examination of the connection between FDI, corruption, and tax revenue performance is made more interesting by this instance. Empirical evidence on this connection is still lacking, though, especially for African countries like Kenya and Nigeria. Because these two countries have similar economic structures, resource endowments, and investment strategies, as well as similar challenges in fighting corruption, they were selected to be the focus of this study.

**Statement of the Research Problem**

It has been established that foreign direct investment (FDI) is a major source of capital inflows and economic growth for developing countries. However, FDI may have negative repercussions if it is not properly managed and monitored (Nalyanya et al., 2020). Two of the biggest concerns about FDI are the potential increase of corruption and the negative impact on the recipient countries' ability to collect taxes (Ketkar et al., 2005; Wijaya & Dewi, 2022). Because of this, policymakers and scholars have paid little attention to or discussed the connection between foreign direct investment, corruption, and tax revenue performance.

The role of FDI in promoting economic growth and development has been extensively studied in the literature. However, there hasn't been much focus on how corruption could affect foreign direct investment and tax revenue performance in developing countries, particularly in Africa (Ketkar et al., 2005; Neog & Gaur, 2021). This is in spite of the fact that tax income and corruption are major problems that many developing nations confront, and that FDI may make these problems worse or better (Spyromitros & Panagiotidis, 2022; Forson, 2024). Moreover, the limited amount of research on the relationship among foreign direct investment, corruption, and tax collection has mostly focused on cross-country studies or case studies of specific countries (Ketkar et al., 2005; Neog & Gaur, 2021), with little done in the African context. There are very few studies that compare the experiences of other countries, particularly in Africa. As a result, there is a lack of comprehensive understanding about the factors that influence the correlation between foreign direct investment, corruption, and tax revenue performance in developing countries, as well as the ways in which these factors differ among countries.

Also, given their distinct historical, economic, and political backgrounds and the fact that both countries have seen sizable FDI inflows, Nigeria and Kenya present an intriguing instance for comparison. While Kenya has recently made great progress in combating corruption and enhancing tax revenue collection (Juma et al., 2020; Hope, 2023), Nigeria has a lengthy history of corruption and subpar tax revenue performance (Agu, Nkwo, & Eneiga, 2024). This calls into question the possible variations in how FDI affects tax income and corruption in various nations, as well as the underlying causes of these variations.

The results on the correlation between foreign direct investment, corruption, and tax revenue performance in Kenya and Nigeria are not entirely consistent. Foreign direct investment (FDI) has been shown to boost economic growth and raise government income, which can enhance tax revenue performance (Camara, 2023; ALshubiri, 2024). However, other research has indicated that because corruption is so prevalent in these nations, there is a negative correlation between foreign direct investment and tax collection performance (Anyawu, 2012; Malanski & Póvoa, 2021). Furthermore, although some studies argue that FDI might reduce corruption by transferring technology and experience, others argue that it may worsen corruption by providing corrupt officials with more opportunities to seek rent (Qian & Sandoval-Hernandez, 2016; Yaru & Raji, 2022).

Therefore, the objectives of the study are to:

i. Examine the impact of FDI on tax revenue performance in Nigeria and Kenya

ii. Ascertain the role of corruption in the relationship between FDI and tax revenue performance in Nigeria and Kenya.

## II. Literature Review

**Tax Revenue Performance**

Tax revenue performance refers to the success or failure of the government's capacity to produce income through tax collection. It is a key indicator of a government's fiscal health and may have a significant impact on a country's overall economic stability and growth rates (Egwakhe and Odunsi, 2019). Tax revenue performance is an important aspect of public finance that is closely linked to tax policy, compliance, and administration (Nalyanya, Ruto, Byaruhanga, & Simiyu, 2020).

Some studies have used the total tax-to-GDP ratio as a measure of the success of tax revenue (Nwadialor & Agbo, 2020), while others have focused on the effectiveness of tax collection (Morrissey, Von Haldenwang, Von Schiller, Ivanyna, Bordon, 2016; Daba & Mishra, 2014). The International Monetary Fund (IMF) says that the stability, sufficiency, and efficiency of tax collection may be used to evaluate the performance of tax revenue (IMF, 2018). While sufficiency refers to the amount of tax income required to fund government spending, stability refers to the predictability and dependability of tax revenue. Efficiency examines how cost-effective tax administration is, whereas equity gauges how equitable and progressive taxes are (IMF, 2018).

The literature has a variety of opinions about the variables affecting tax revenue performance. Changes in tax rates have a major effect on the performance of tax revenue, according to one of the primary justifications

(Bikas & Andruskaite, 2013; Aminda, Suharti, Bimo, & Suganda, 2022). Therefore, in order to prevent discouraging economic activity or encouraging tax cheating, governments must carefully balance adjustments to tax rates. Another claim is that enhancing tax revenue performance requires efficient tax administration, which includes appropriate enforcement and monitoring (Morrissey et al., 2016). Daba and Mishra (2014) stated also that higher tax revenue collection can result from increased tax compliance and decreased tax evasion, which can be achieved through effective tax administration.

**Foreign Direct Investment**

A company or individual from one country invests in a project or business in another with the goal of establishing a long-term presence and exerting significant influence and control over the business operations. This type of international capital flow is known as foreign direct investment (FDI), according to Cole, Elliot and Zhang (2017). FDI's main goal is to establish a partnership that benefits both the investment company and the host nation, with advantages including access to new markets, resources, and technology being shared by both (Emmanuel, Eloho, Dabor, Dabor, & Aggreh, 2024; Dinh, Vo, The Vo, & Nguyen , 2019).

The effect that FDI has on host nations' domestic economies is one of the main points of contention in the literature on the subject. According to studies, FDI boosts economic growth by bringing in new capital, generating job opportunities, and enhancing local businesses' competitiveness and productivity through knowledge transfer (Gasparėnienė, Kliestik, Šivickienė, Remeikienė, & Endrijaitis, 2022; Li, Dong, Huang, & Failler, 2019). Some contend, however, that the entry of foreign businesses may result in the displacement of domestic businesses, exacerbate economic disparities, and take advantage of the host nation's cheap labour and resources (Pratomo, 2020; Egwakhe & Odunsi, 2019).

The part that government policies play in drawing in and encouraging FDI is another important topic in the conversation about FDI. By lowering entry barriers, giving incentives, and maintaining a stable regulatory environment, well-crafted policies may foster an environment that is conducive to investment and may draw foreign direct investment (FDI) (Zafar, Zaidi, Khan, Mirza, Hou, & Kirmani, 2019; Nguyen, 2022). But an over-reliance on FDI can also result in an unhealthy dependency on foreign control and money, jeopardizing the host nation's economic objectives and sovereignty (UNCTAD, 2023).

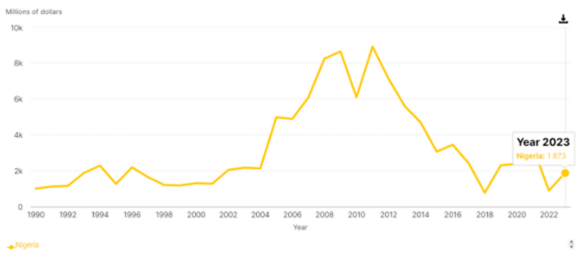


**Figure 1:** FDI flow in Nigeria 1990-2022
**Source:** Ojo (2024)

A recent analysis by the UN Conference on Trade and Development (UNCTAD) found that foreign direct investment (FDI) flows to Nigeria more than doubled in 2023, defying both African and global trends and reversing a notable decline from the year before. Foreign direct investment (FDI) in Nigeria reached $1.9 billion last year, up from $895 million in 2022, but still less than the $3.3 billion in 2021. In 2009 and 2011, Nigeria received $8.7 billion and $8.9 billion in foreign direct investment (FDI), respectively, the highest amounts since 1990 (Ojo, 2024).

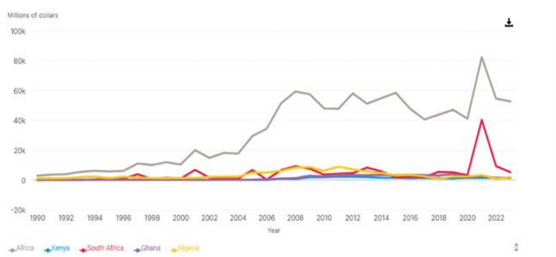


**Figure 2:** FDI movement for Nigeria 1990-2022 compared to other countries
**Source:** Ojo (2024)

The general drop in both global and African FDI flows contrasts with Nigeria's 2023 FDI rise. The UNCTAD report states that a 2% drop in global foreign direct investment to $1.3 trillion was caused by trade and geopolitical tensions as well as a sluggish global economy. The fall would have been more than 10% if it weren't for a few European economies that had large inflows of investment. In developing countries, foreign direct investment (FDI) fell 7% to $867 billion, including a 3% drop to $53 billion in Africa (Ojo, 2024).

Tightening financing conditions have coincided with a considerable rise in foreign direct investment (FDI) in Nigeria, leading to a 26% decrease in international project finance transactions, a critical component of infrastructure investment. Due to their heavy reliance on this type of finance, the poorest countries are more vulnerable to global downturns. Central Africa showed the largest drop in FDI inflows, at 17%, whereas Southern Africa saw a 22% increase, breaking the trend (Ojo, 2024; UNCTAD, 2024).

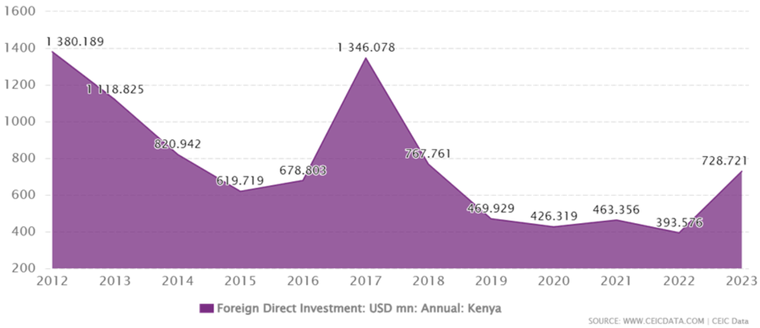


**Figure 2:** Kenya FDI movement
**Source:** CEIC (2024)

In December 2023, foreign direct investment (FDI) in Kenya climbed by 728.7 USD million, up from 393.6 USD million the year before (CEIC, 2024).

**Foreign Direct Investment and Tax Revenue Performance**

There is a favourable association between FDI and tax revenue, according to several academics who view FDI as a potential source of tax revenue. According to Egwakhe and Odunsi (2019), FDI may contribute to the growth of host countries' tax bases, especially in the manufacturing sector, by generating new jobs and funding for the government. Similarly, Gasparėnienė et al. (2019) found a positive relationship between inflows of foreign direct investment and corporate tax collection. Furthermore, by promoting economic growth and raising income and consumption, foreign direct investment (FDI) can also indirectly enhance tax revenue (Camara, 2023).

However, there have also been arguments made against the favourable correlation between FDI and tax revenue performance. The issue of tax breaks and incentives provided by host nations to entice foreign direct investment is one possible concern. Host nations may lose tax income as a result of such incentives (UNCTAD, 2018). Nalyanya et al. (2020), for instance, discovered that several African nations provided substantial tax breaks to foreign investors, which led to a reduction in prospective tax income. Additionally, some research has suggested that extremely successful multinational companies (MNCs) frequently use tax avoidance strategies, including profit shifting, to reduce the amount of taxes they must pay in their host nations, which results in revenue losses (Morrissey et al., 2016).

Furthermore, the kind of FDI has a big influence on how much tax money it generates. Lower tax receipts for host nations are specifically linked to foreign acquisitions (Okey, 2013). High levels of intra-firm trade are frequently involved in these purchases, which can result in profit shifting and transfer pricing, both of which can be utilized as a means of evading taxes. Additionally, in order to evade taxes, multinational corporations may postpone returning earnings to their home nation, which would further lower host nations' tax collections (Wijaya & Dewi, 2022).

Emmanuel et al. (2024) use data from Nigeria, a developing nation, to demonstrate a favourable correlation between tax revenue and foreign direct investment (FDI). They argue that by bringing in new capital and technology, foreign direct investment (FDI) boosts economic activity and tax revenue. Foreign direct investment (FDI) and tax revenue in Nigeria are positively correlated, claim Egwakhe and Odunsi (2019). However, they contend that the prevalence of terrorism in the nation mitigates this beneficial effect. They contend that terrorism's detrimental effects on economic activity could offset FDI's beneficial effects on tax collections.

According to Gasparėnienė et al. (2020), there is a positive correlation between FDI and tax income in the EU. They contend that FDI boosts local companies' competitiveness and productivity, which boosts economic activity and raises tax receipts. Furthermore, they discover that different EU member states have different effects of FDI on tax income, with nations with more advantageous tax policies drawing higher levels of FDI and, in turn, higher tax revenues.

Camara (2023), however, looked at how foreign direct investment (FDI) affect tax collection in developing countries and came up with mixed findings. The findings indicated that there is a context-specific relationship between tax revenue and foreign direct investment (FDI), which is impacted by a number of variables such as tax laws, the calibre of institutions, and the degree of economic growth. While foreign direct investment (FDI) may provide new technology and capital, they argue that it can also lead to tax avoidance and incentives, which would lower tax revenue.

Pratomo (2020) looked into how FDI affects tax income in emerging nations as well, although he found a negative correlation, the study contend that because FDI provides a different source of finance, it may lessen the government's need on tax income. Additionally, they imply that in order to reduce their tax obligations, multinational companies (MNCs) may use profit shifting, which would lower tax collection.

Nalyanya et al. (2020) looked at how foreign direct investment affected Kenya's tax revenue performance. The study used quarterly data from 2009 to 2019 and applied a Vector Autoregressive (VAR) model. The results indicated that there is a short-term positive correlation and a long-term negative correlation between FDI and tax income. The study found that while foreign direct investment (FDI) may increase tax revenue in the short term by stimulating economic activity, profit shifting and tax advantages may eventually result in poorer tax collection.

Wijaya and Dewi (2022) investigated the variables that impact foreign direct investment and their impact on Indonesia's tax revenue. Time-series data from 1980 to 2015 was used in the study using an Error Correction Model (ECM). The results suggest that FDI has a long-term, favourable, and substantial impact on tax income, even though it does not occur immediately. The study also came to the conclusion that government expenditure and trade openness have a significant impact on Indonesia's tax revenue.

Binha (2021) examined the impact of foreign direct investment (FDI) on the increase of Zimbabwe's tax income from 1980 to 2015. The study used time-series data and a Vector Error Correction Model (VECM). The results showed that foreign direct investment (FDI) has a positive and considerable impact on tax revenue growth over the long run, but not in the short term. The study also showed that Zimbabwe's tax revenue growth is positively and considerably impacted by trade openness and GDP growth.

**FDI, Corruption and Tax Revenue Performance**

Given the development of globalization and international commerce, FDI has also raised worries about corruption and its influence on tax collections. Epaphra and Massawe (2017) claims that foreign direct investment (FDI) can assist host nations improve productivity, export competitiveness, and skills development. However, the success of FDI is heavily dependent on the business environment and the extent of corruption (Alabede, 2018). A corrupt climate according to Abebe and Fikre (2020) might inhibit FDI because investors see it as a danger to their firm. As a result, FDI may drop, limiting the potential advantages to the host nation.

One of the biggest effects of foreign direct investment on corruption is the "resource curse." This concept implies that nations with abundant natural resources—like minerals, oil, or gas—are more vulnerable to corruption as a result of rent-seeking practices. Since FDI frequently includes extractive businesses and can intensify the already-existing culture of corruption, it can make this problem worse (Krifa-Schneider, Matei, & Sattar, 2022; Khan, Khan, & Mirwani, 2022). In these situations, unscrupulous tactics are employed to get political favors and close FDI transactions, which lowers tax revenue collection.

Ketkar et al. (2005) examined the effects of corruption on FDI and tax revenues, whereas Gasparėnienė et al. (2019) concentrated on the influence of FDI on tax revenues. Ketkar et al. (2005) used panel data from 82 nations over 16 years, while Gasparėnienė et al. (2019) used a smaller sample of 22 countries over 14 years. Both studies account for a variety of macroeconomic characteristics, including GDP, population, and trade openness. Foreign direct investment and tax revenues are negatively impacted by corruption, claimed Ketkar et al. (2005). This is consistent with past studies that showed a negative relationship between foreign direct investment and corruption. The authors claimed that since corruption unnerves investors, they reduce their investments or avoid paying taxes, which reduces government tax revenues. However, the analysis also showed that FDI raises tax collections, indicating that the benefits of FDI outweigh the disadvantages of corruption. However, according to Gasparėnienė et al. (2019), FDI has a positive and statistically significant influence on tax receipts. They contend that FDI increases tax revenues by bringing in new technology, expertise, and skills that can boost economic development and productivity. Additionally, they contend that by generating new companies and job possibilities, FDI may expand the tax base and increase government tax receipts.

Yaru and Raji's (2022) and Epaphra and Massawe's (2017) research both concentrate on the connection between tax revenue performance, governance, and corruption in Africa. Although the goals of the two research are identical, their approaches and conclusions are different. The main empirical conclusions of these research will be covered in this critical review, along with an analysis of their advantages and disadvantages.

Epaphra and Massawe (2017) investigate how corruption and governance affect tax revenue collection in Africa using panel data from 37 African countries between 2001 and 2014. The study found a negative relationship between corruption and tax revenue performance, indicating that higher levels of corruption directly lead to lower tax collections. Furthermore, the authors found a high positive association between governance and tax revenue, suggesting that good governance practices may improve tax revenue collection. These findings are in line with previous studies on the negative impacts of corruption and the positive benefits of good governance on tax collections.

In contrast, Yaru and Raji (2022) examine the relationship between tax revenue, governance, and corruption in sub-Saharan Africa using data from 25 countries for the years 2000–2019. The study contributes to the literature by incorporating a temporal lag between governance and tax income in order to measure the longer-term effects of governance on tax collections. The findings show that corruption negatively impacts tax revenues, which is consistent with Epaphra and Massawe (2017). The research revealed no significant relationship between tax income and governance, which is in contrast to the findings of Epaphra and Massawe (2017). According to Okey (2013), governments occasionally work out tax breaks with foreign investors, which reduces both the tax burden and the amount of money collected by the host country. Essentially, this can result in a vicious cycle whereby lower tax revenues cause a greater reliance on foreign direct investment, which in turn causes further tax revenue losses.

However, FDI and tax revenue are not always negatively correlated. According to research, FDI may also benefit tax revenues in developing countries. Foreign direct investment (FDI) inflows have the potential to increase host countries' tax revenues, especially when those investments are concentrated in the industrial sector, according to study by Paomo (2020). This is because manufacturing-related foreign direct investment (FDI) has the ability to increase economic growth, provide employment, and promote tax compliance—all of which increase government tax revenues.

There is also conflicting theoretical evidence about the connection between tax revenues, corruption, and foreign direct investment. The "virtuous cycle" theory states that corruption may obstruct foreign direct investment and lower tax receipts (Al Zadjali, 2010; Gebrihet, Gebresilassie, & Woldu, 2023). On the other hand, if FDI inflows rise, they may result in improved corporate governance, greater transparency, and less corruption, all of which raise tax receipts (Agu et al., 2024). However, corruption can also result in decreased FDI inflows, which might restrict economic development potential and lower tax revenues, according to the "vicious cycle" idea (Yaru & Raji, 2022).

## III. Methodology

**Research Design**

The ex-post factor research design is used in this study. This approach is suitable for this subject as it looks at the connection between the variables over a given time period and permits the collecting of data from pre-existing sources (Simon & Goes, 2013). From 2012 to 2023, the study relied on validated and trustworthy data from legally recognized organizations such as the Central Bank of Nigeria (CBN) annual reports and statistical bulletin, the World Development Indicator (WDI), the Federal Inland Revenue Service (FIRS) Annual Report, and the National Bureau of Statistics (NBS). The relationship between foreign direct investment (FDI), corruption, and tax collection performance in Nigeria and Kenya was investigated using data spanning 2012 to 2023. This timeframe was chosen because it provides adequate chance to monitor changes in foreign direct investment, corruption levels, and tax revenue performance in the two countries. The study's data was analysed using descriptive, correlation, and regression methods.

**Model Specification**

The model for the study was informed from the previous works of Ketkar et al. (2005); Egwakhe and Odunsi (2019), which was modified to include not just corruption as a moderating variable but also the focus on two countries (Nigeria and Kenya), this informed the design the model for this study:

$TREVPt= \alpha0+ \beta1FDIt+ \beta2CORt+ \beta3FDI*COR+ \mu$

TREVP = Tax revenue performance

FDI = Foreign direct investment

COR = Corruption

$\beta1$- $\beta3$ = Coefficients

$\mu$ = error term

**Table 1:** Operationalisation of variables

| Variables | Proxy | Measurement | Source | Apriori sign |
|---|---|---|---|---|
| Tax revenue performance | TREVP | This is measured using the ratio of tax revenue to gross domestic product | Egwakhe and Odunsi (2019); Nalyanya et al. (2020) | |

| | | | | |
|---|---|---|---|---|
| Foreign direct investment | FDI | This is measured using total foreign direct investment inflow as (% of GDP) | Egwakhe and Odunsi (2019) | + |
| Corruption | COR | Measured using corruption perceptions index score | Statista (2024); Transparency International (2024) | - |

## IV. Findings And Discussions

### Evidence from Nigeria

**Table 2:** Descriptive statistics

| | TREVP | FDI | COR |
|---|---|---|---|
| Mean | 10.86917 | 0.664794 | 25.91667 |
| Median | 10.28000 | 0.631842 | 26.00000 |
| Maximum | 16.25000 | 1.523782 | 28.00000 |
| Minimum | 8.280000 | -0.039522 | 24.00000 |
| Std. Dev. | 2.406704 | 0.400542 | 1.311372 |
| Skewness | 1.035413 | 0.354379 | -0.095319 |
| Kurtosis | 3.102473 | 3.369150 | 1.792641 |
| | | | |
| Jarque-Bera | 2.149412 | 0.319305 | 0.747029 |
| Probability | 0.041398 | 0.052440 | 0.008311 |

The table reveals that the average values for TREVP, NFDI, and NCOR are 10.86917, 0.664794, and 25.91667, respectively. The median values are somewhat lower than the mean, showing a little right-skewed distribution of data. The maximum values for TREVP and NCOR are 16.25000 and 28.00000, respectively, suggesting that the data contains outliers. The minimum number for NFDI is negative (-0.039522), implying that there may be some occurrences of disinvestment in both nations. All three variables have modest standard deviation values, indicating that the data is very stable.

The data for all three variables is significantly skewed, according to the skewness ratings. NFDI and NCOR have a smaller positive skew, suggesting that the data is skewed toward lower values, but TREVP has a positive skew, suggesting that the data is biased toward higher values.

Kurtosis results reveal that the TREVP and NCOR distributions are somewhat leptokurtic, but the NFDI distribution is very leptokurtic. This shows that the data for NFDI is more severe than the other two variables.

The Jarque-Bera values show that the data for all three variables do not follow the normal distribution. This is supported by the low probability, all of which are less than 0.05, showing that the data is not normally distributed at the 95% confidence level. This indicates that the assumption of normality may not be applicable for the data, and other statistical procedures may be required.

**Table 3:** Correlation analysis

| | TREVP | FDI | COR |
|---|---|---|---|
| TREVP | 1.000000 | 0.632272 | 0.036846 |
| FDI | 0.632272 | 1.000000 | 0.342205 |
| COR | 0.036846 | 0.342205 | 1.000000 |

The correlation coefficient between FDI and TREVP is 0.632272, which is fairly significant, according to this table. Thus, the performance of tax income increases in tandem with foreign direct investment. Thus, FDI enhances Nigeria's tax revenue performance. TREVP and COR have a very weak positive link, with a correlation value of 0.036846. This implies that the performance of tax collection in both countries and corruption are not significantly correlated. The correlation coefficient for FDI and COR is 0.342205, showing a somewhat favourable association. This shows that when foreign direct investment (FDI) grows, so does corruption. This might be due to FDI being drawn to nations with less restrictions and anti-corruption enforcement.

**Table 4**: Impact of FDI and Corruption on Tax Revenue Performance

Dependent Variable: TREVP

| Variable | Coefficient | t-Statistic | Prob. |
|---|---|---|---|
| NFDI | 4.217166 | 2.635037 | 0.0271 |
| NCOR | -0.373167 | -0.763391 | 0.4648 |
| C | 17.73687 | 1.435170 | 0.1851 |
| | | | |
| R-squared | 0.436270 | | |
| Adjusted R-squared | 0.310997 | | |
| Durbin-Watson stat | 2.666460 | | |

| | |
|---|---|
| F-statistic | 3.482546 |
| Prob(F-statistic) | 0.035826 |

The findings indicate that FDI has a positive and significant effect on tax revenue performance, with a coefficient of 4.217166 and a t-statistic of 2.635037. This suggests that a rise in FDI results in an increase in tax revenues. In contrast, NCOR has a negative but insignificant impact on tax revenue performance, with a coefficient of -0.373167 and a t-statistic of -0.763391. This shows that corruption has little influence on tax collection performance.

The model appears to have no serial correlation, as indicated by the Durbin-Watson statistic of 2.666460, which is close to the optimal value of 2. With a matching p-value of 0.035826 and an F-statistic of 3.482546, both are below the conventional significance level of 0.05. This demonstrates that the entire model is statistically significant and might be applied to anticipate the performance of tax revenue.

**Table 5:** Moderating Effect of Corruption on FDI and Tax Revenue Performance

**Dependent Variable**: TREVP

| Variable | Coefficient | t-Statistic | Prob. |
|---|---|---|---|
| COR_FDI | -0.140528 | -2.538225 | 0.0295 |
| C | 8.424817 | 7.534441 | 0.0000 |

The moderating effect of corruption on the relationship between FDI and tax revenue performance is shown in Table 5. The NCOR_NFDI coefficient is -0.140528, indicating that FDI has a detrimental effect on the performance of tax revenue. The significance of this negative relationship is illustrated by the t-statistic of 2.538225, and the statistical significance of the link is indicated by the probability value of 0.0295.

These results lead to the conclusion that the relationship between FDI and tax revenue performance is moderated by corruption. Higher degrees of corruption may lessen the positive effect of foreign direct investment on tax collection, according to the negative coefficient. This study supports the hypothesis that corrupt practices might reduce FDI's ability to improve tax collection performance.

**Evidence from Kenya**

**Table 6: Descriptive statistics**

| | TREVP | FDI | COR |
|---|---|---|---|
| Mean | 14.88748 | 1.042482 | 28.08333 |
| Median | 14.90298 | 0.858243 | 27.50000 |
| Maximum | 19.54198 | 2.447259 | 32.00000 |
| Minimum | 11.36181 | 0.347014 | 25.00000 |
| Std. Dev. | 1.921352 | 0.667620 | 2.391589 |
| Skewness | 0.751558 | 0.768926 | 0.314191 |
| Kurtosis | 4.643041 | 2.527835 | 1.810652 |
| | | | |
| Jarque-Bera | 2.479470 | 1.293964 | 0.904706 |
| Probability | 0.009461 | 0.023624 | 0.036129 |

The mean tax revenue performance (TREVP) is 14.88748, with a median value of 14.90298. This suggests that Kenya's average tax revenue performance is rather consistent. The average FDI is 1.042482, with a median of 0.858243. This shows that Kenya has a comparatively low amount of foreign direct investment. The average corruption rate (COR) is 28.08333, with a median of 27.50000. This shows that Kenya has a rather high level of corruption, with the majority of observations lying over the midpoint of the corruption index scale. The standard deviations for tax revenue performance, foreign direct investment, and corruption index are 1.921352, 0.667620, and 2.391589, respectively. This implies that all three variables vary, with the corruption index having the biggest standard deviation.

The corruption index, foreign direct investment, and tax revenue performance all have skewness values of 0.314191, 0.751558, and 0.768926, respectively. This indicates that the distribution of all three variables is skewed toward higher values and is somewhat positively skewed. The corruption index, foreign direct investment, and tax revenue performance all have kurtosis values of 1.810652, 2.527835, and 4.643041, respectively. This suggests that, in comparison to a normal distribution, all three variables have a somewhat higher peak (leptokurtic).

The corruption index, foreign direct investment, and tax revenue performance Jarque-Bera data are 0.904706, 1.293964, and 2.479470, respectively. At the 5% level, these values are statistically significant, indicating that the distribution of the variables is not entirely normal.

**Table 7:** Correlation analysis

| | TREVP | KFDI | KCOR |
|---|---|---|---|
| TREVP | 1.000000 | -0.244717 | 0.379523 |
| KFDI | -0.244717 | 1.000000 | -0.338543 |
| KCOR | 0.379523 | -0.338543 | 1.000000 |

The correlation between TREVP and FDI is -0.244717, indicating a modest negative link between the two variables. This indicates that when foreign direct investment rises, tax revenue performance marginally falls. However, the association is weak, suggesting that FDI may not be the only factor impacting tax revenue success. The correlation coefficient between TREVP and COR is positive (0.379523), showing a slight positive association between the two variables. This suggests that as corruption grows, so does tax revenue performance, but the association is weak.

The correlation between FDI and COR is likewise negative (-0.338543), suggesting a modest negative link between the two variables. This suggests that when FDI grows, corruption falls marginally. Again, the association is weak, suggesting that other variables may influence the amount of corruption in Kenya.

**Table 8:** Impact of FDI and corruption on Tax Revenue Performance
Dependent Variable: TREVP

| Variable | Coefficient | t-Statistic | Prob. |
|---|---|---|---|
| FDI | 0.304069 | 0.277189 | 0.7896 |
| COR | 0.320847 | 0.824017 | 0.4371 |
| C | 6.250981 | 0.507604 | 0.6273 |
| AR(1) | 0.415204 | 0.600552 | 0.5671 |
| SIGMASQ | 2.594858 | 1.903214 | 0.0987 |
| R-squared | 0.233189 | | |
| Adjusted R-squared | 0.204988 | | |
| Durbin-Watson stat | 2.066268 | | |
| F-statistic | 0.532180 | | |
| Prob(F-statistic) | 0.017073 | | |

The coefficients for both FDI and corruption are positive, demonstrating a link between these factors and tax revenue growth. However, the t-statistic values for both variables are low, implying that the association is not statistically significant. This implies that while FDI and corruption may have an impact on Kenya's tax revenue performance, it is not statistically significant.

The independent variables (FDI and corruption) are thought to be responsible for around 23% of the variance in tax revenue performance, according to the R-squared value of 0.233189. The regression residuals do not appear to have significant autocorrelation, as indicated by the Durbin-Watson statistic of 2.066268 being close to the optimal value of 2. The entire regression model is statistically significant at the 5% level, according to the F-statistic of 0.532180 and the probability value of 0.017073.

**Table 9:** Moderating Effect of Corruption on FDI and Tax Revenue Performance
Dependent Variable: TREVP

| Variable | Coefficient | t-Statistic | Prob. |
|---|---|---|---|
| COR_FDI | -0.018763 | -0.568502 | 0.5822 |
| C | 15.42749 | 13.91018 | 0.0000 |
| R-squared | 34.031308 | | |
| Adjusted R-squared | 31.065562 | | |
| Durbin-Watson stat | 2.873920 | | |
| Log likelihood | 24.15070 | | |
| F-statistic | 0.323194 | | |
| Prob(F-statistic) | 0.042235 | | |

The dependent variable in this analysis is tax revenue performance (TREVP). The study shows that the variable indicating the interaction between corruption and FDI (COR_FDI) is not statistically significant, with a coefficient of -0.018763 and a p-value of 0.5822. This shows that the country's level of corruption does not significantly influence the link between FDI and tax revenue performance.

With a t-statistic of 13.91018 and a coefficient of 15.42749, the constant (C) indicates that Kenya's baseline tax revenue performance is significantly above zero. According to the R-squared value of 34.031308, around 34% of the variation in tax revenue performance can be explained by the model. Both the Durbin-Watson and modified R-squared values show that the model fits the data satisfactorily.

## V. Discussions

The study's findings are consistent with prior research that found a favourable relationship between foreign direct investment and emerging countries' tax revenue performance. For example, Forson (2024) found that foreign direct investment (FDI) raises tax receipts in Ghana, while Qian and Sandoval-Hernandez (2016) found the same thing in Tanzania. This is explained by the fact that new capital, technology, and skills are typically introduced as a consequence of foreign direct investment (FDI), which boosts economic activity and tax revenues.

However, our research is the only one that shows that the relationship between FDI and tax revenue performance is negatively moderated by corruption. This is supported by research by Sunkanmi and Isola (2014), which shows that corruption can obstruct the positive effects of foreign direct investment on government revenue in countries with high levels of corruption. A lack of accountability and transparency brought on by corruption may make it easier for companies to cheat and avoid paying taxes. This lowers the amount of tax money that might be collected from foreign direct investment.

In contrast to Kenya's results, research by Martner and Dabalen (2011) discovered that in nations with weak institutions, corruption significantly and favourably affects tax revenue performance. They contend that since collecting taxes enables corrupt authorities to demand bribes from businesses, they may be more motivated to do so. Research by Malanski and Póvoa (2021) further supports this conclusion by showing that corruption may raise tax revenues in nations with few other options for government funding.

The results in Kenya may also be explained by the fact that, although corruption might reduce overall economic activity, it can also impede the beneficial impacts of foreign direct investment on tax revenue performance. This is supported by the Gnangnon (2021) research, which found that corruption can lead to lower levels of economic development and foreign direct investment. Therefore, even if foreign direct investment (FDI) may have a positive impact on tax revenue performance, corruption may have a negative overall impact on the economy, resulting in lower tax revenues (Emmanel et al., 2024).

Additionally, Nigeria's findings support past studies that suggested corruption might obstruct the positive effects of foreign direct investment on economic expansion. For example, Pratomo (2020) found that corruption may reduce the beneficial impact of foreign direct investment (FDI) on economic growth in developing countries. This is due to corruption's ability to lead to resource misallocation and a reduction in overall efficiency, both of which reduce the potential economic benefits of foreign direct investment. The disparities in institutional quality between the two nations might also be a contributing cause to Kenya's contradictory results. Kenya has a comparatively superior institutional structure and has seen recent improvements in its corruption perception score, whereas Nigeria has a history of high levels of corruption (Transparency International, 2024). This may help to explain why corruption in Nigeria has a more pronouncedly negative moderating influence on the link between foreign direct investment and tax revenue performance.

The study's conclusions have important implications for both countries' decision-makers. If steps are implemented to improve institutional quality and reduce corruption, foreign direct investment (FDI) may have a more beneficial impact on Nigeria's tax collection performance (Gasparėnienė et al., 2019). This would entail implementing anti-corruption measures, such as strengthening oversight and accountability frameworks and improving the overall business environment, in order to attract more foreign direct investment. Efforts to curb corruption might not have a substantial influence on Kenya's tax revenue performance. To attract more foreign direct investment and increase tax revenues, policymakers should instead focus on improving the overall state of the economy (Egwakhe & Odunsi, 2019; Daba & Mishra, 2014).

In conclusion, this study has found a positive relationship between FDI and tax revenue performance in Nigeria and Kenya. However, corruption was found to have a significant negative moderating effect on this relationship in Nigeria, while the effect was insignificant in Kenya.

## VI. Conclusion And Recommendations

The findings of this study provide light on the link between FDI, corruption, and tax collection performance in Nigeria and Kenya. It is evident that foreign direct investment (FDI) improves Nigeria's tax collecting performance, indicating that it may be a source of funding for the government. Nonetheless, it was demonstrated that corruption had a moderating effect that was detrimental, highlighting the necessity of vigorous anti-corruption measures to optimize the benefits of foreign direct investment.

According to the study's findings, corruption and foreign direct investment have conflicting effects on Kenya's tax collection performance. Corruption served as a negative moderating factor, but foreign direct investment (FDI) had a positive but minor influence. This indicates that the benefits of foreign direct investment may be diminished by Kenya's high level of corruption. The government should prioritize fighting corruption if it is to fully reap the advantages of foreign direct investment.

Overall, the findings emphasize the relevance of government policies and institutional frameworks in fostering FDI and maximizing tax revenue performance. To attract more FDI and raise tax income, both nations' governments should prioritize fostering a favourable investment climate, promoting transparency, and decreasing corruption.

Based on the findings of this study, the following recommendations are proposed for policymakers and stakeholders in Nigeria and Kenya:

1. Strengthen anti-corruption measures: The negative moderating effect of corruption on the relationship between FDI and tax revenue performance highlights the importance of robust anti-corruption laws and strategies in both nations. This might involve increasing openness in government operations, enacting effective anti-corruption legislation and regulations, and strengthening organizations tasked with combatting corruption.
2. Promote a favourable investment climate: The beneficial impact of FDI on tax collection performance in Nigeria demonstrates FDI's potential as a revenue source for the government. As a result, measures such as tax breaks and simplified corporate laws should be put in place to attract and maintain more foreign direct investment.
3. Improve tax administration: Efficient tax administration is critical to optimizing tax revenue performance. Both governments should emphasize efforts to enhance revenue collection operations, eliminate tax evasion, and boost compliance. This might involve investing in modern tax systems, training tax authorities, and educating the general public about tax duties.
4. Diversify the economy: Overreliance on a single industry for FDI and tax income can put a country in jeopardy. As a result, both Nigeria and Kenya should prioritize economic diversification in order to attract FDI from a variety of industries and minimize exposure to external shocks.

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