The Impact of Corruption
on Nigerian Enterprises' Performance:
An Empirical Study

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Abstract: This study aims to assess the effects of corruption on Nigerian enterprises performance using data from the World Bank's Enterprises Survey, (Panel Data) for the years 2007, 2009, 2014. The Pooled Regression Model was applied. The corruption measured by six indicators, namely electrical connection, water connection, phone connection, construction-related permit, total annual informal payment to public officials and give gifts to public officers to get things done. The performance measured by the sale and purchase of fixed assets. The results of the study somehow contrast, as the payment for the water connection is significant and positively affecting firms' performance. But construction-related permit has a negative impact on the performance but insignificant. Meanwhile, the level of firms expected to give gifts to public officers "to get things done" significant and positively affect the enterprises' performance. As for the total payments to the public officers is significant and has negative effects, which indicates the medium or long terms impacts. This may be explained by the fact that developing economies are characterized by formal institutional flaws such as ineffective public administration and weak rule of law. Unlike other studies, this study indicates that corruption represents an obstacle to Nigerian enterprises' performance. The public authorities should move away from increasing the costs of corruption by implementing standards of transparency. Entrepreneurs also must search for alternatives to avoid paying bribes, such as leasing financing and soon.
Keywords: Corruption, Performance, Enterprises, World Bank's Enterprise Surveys, Nigeria.
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1. INTRODUCTION

Corruption is a global issue over time and widespread phenomenon in many countries around the world, but it is more prevalent in developing countries (Motta, 2017). In 2004, Transparency International's Global Corruption Barometer (GCB) revealed that one person in ten pays a bribe every year, and the 2009 Anti-Corruption Act found that among those who pay bribes, the amounts account for about 10 percent of their income. Besides, the World Bank (2009) identified corruption as one of the biggest obstacles to economic growth, social development, and poverty reduction. However few studies have examined the enterprises' sector closely to quantify the level of impact. These studies have mixed results, negative effects of corruption on the enterprises' performance and positive impacts. Empirical results, although insufficient, revealed evidence of corruption effects on firms, individuals, and society in general (Motta, 2017). Nevertheless, the persistence of corruption, which is virtually present in every form of public governance, suggests that its effects are difficult to uncover accurately.

Based on this importance, this study aims to assess the impact of corruption on enterprises performance in Nigeria. Although Nigeria is considered one of the African countries that enjoy great natural resources, it is classified among the countries whose people suffer from poverty due to the rampant corruption as well as other problems.

According to (Motta, 2017), in Nigeria corruption is a major and urgent issue at once and has taken a large part in the government's measures. President Muhammadu Buhari had a good reputation, and was known for his integrity throughout his career. For this he was elected by the people to fight the spoilers of his political opponents. Buhari launched an anti-corruption campaign after taking office in May 2015 that showed recent corruption scandals theft or embezzlement of large sums of money (Motta, 2017).

1.1. Motivation

The 2009 Anti-Corruption Act [2]found that among those who pay bribes, it represents the amounts are about 10 percent of their income. The World

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2. Lawson, L. (2009), "The Politics of Anti-corruption Reform in Africa", **The Journal of Modern African Studies**, 73-100.

Bank itself has identified corruption as one of the biggest obstacles to economic growth, social development, and poverty reduction. Although Nigeria is considered one of the African countries that enjoy great natural resources, it is classified among the countries whose people suffer from poverty due to rampant corruption in addition to other problems. Hence the importance of studying the level of corruption in the business sector.

1.2. Research Question

Does corruption affect the performance of enterprises operating in Nigeria in various sectors? Through the research question, the study main hypothesis can be formulated as corruption has negative impacts on Nigerian enterprises' performance in different sectors.

Depending on the nature of the available data, and to focus well on the study sample, this hypothesis can be reformulated based on the sub-indicators of the corruption variable as follows:

H_1: The high percentage of firms expected to give gifts to get a water connection negatively impact Nigerian enterprises performance.

H_2: A high level of firms expected to give gifts to public officials "to get things done" have negative effects on Nigerian enterprises performance.

H_3: The total annual informal payment to public officials negatively impacts Nigerian enterprises performance.

H_4: Firms' high expectation of giving gifts to get a phone connection has a negative impact on Nigerian enterprises performance.

H_5 Firms' high expectation of giving gifts to get a construction permit has a negative effect on Nigerian enterprises performance.

H_6: Identifying corruption as a major impediment to business activities has negative effects on Nigerian enterprises' performance.

H7: Average security costs as a percentage of total annual sales for all firms.

H8: Percentage of establishments that consider tax rates to be the Biggest Obstacle.

This study has been divided into the following parts: Part One Introduction, Part Two provides details about the literature review. While the third section highlights data and methodology; section four hosts the results and discussion. Section five concludes presents conclusion and recommendations followed by a list of references.

2. LITERATURE REVIEW

2.1. Corruption and Nigerian Enterprises

According to Transparency International, corruption is "the abuse of entrusted power for personal gain". This means all forms of abuse of resources or power for an individual or enterprise's gain. Empirical research discussed different types and level of corruption in the business sector, such as bribery, embezzlement, facilitation payment, fraud, collusion, extortion, patronage, clientelism and nepotism (Motta, 2017).

The results of empirical studies differed in determining the effects of corruption on the business sector. Some studies have emphasized the negative effects that corruption causes on the business performance of firms, which are represented by a lack of assets, curbing growth or reducing sales. Despite this, some studies have found a positive effect of corruption on firms' growth and performance, and they explain this to the role of corruption in facilitating many procedures related to administrative red tape and the speed of completion of various transactions. For further clarification, the results of these studies will be presented briefly.

Many studies indicate that corruption has positive effects on enterprises performance (Williams et al., 2016, Chakravorty et al., 2016, Bologna & Ross, 2015, Ayaydın & Hayaloglu, 2014, Sahakyan & Stiegert, 2012, and Asiedu & Freeman, 2009). These effects are represented in the ease of obtaining investment opportunities, especially when the government is the contractor or submits contracting offers, the enterprise that pays the bribe to get the offer even without competence or legitimacy. Besides, customs clearance procedures or even tax payments, the bribing firm may get big discounts and sometimes exemptions. All these practices enhance the enterprises' income and thus have positive effects on the enterprises' performance. But these positive influences are not absolute; there are some negative influences of corruption also found.

In contrast, (Motta, 2017) and (Motta, 2017) indicate that corruption has negative effects on enterprises performance. These effects are represented in raising the operational cost, creating uncertainties, and weakening future expectations and predicting market fluctuations and the economic activities in general. Because the final cost of the product or activity includes the in-

clusion of all cash and opportunity costs, the marginal cost and hence the final cost will be increased. This reduces the enterprise's profits and squanders a competitive advantage.

As for the Nigerian evidence, we see many studies confirming that corruption has a great impact on the economic development level, and enterprises, in particular, (Motta, 2017). The potential causes and effects of corruption are seen to be rooted in the social-cultural practices, political and economic situation within the country. The results confirmed that there is a significant reduction in the level of corruption in the country through the introduction of government anti-corruption tools. These findings confirmed that the negative association between levels of corruption and economic growth, which made it difficult for Nigerian enterprises to develop rapidly.

2.1. Enterprises' Performance

Measuring business performance, especially enterprises of all sizes and activities, is essential and takes a lot of academic research work and practices. Performance is defined as the operational ability to satisfy the desires of the principal shareholders of the firm (Smith & Reece, 1999). Over time, scholars have examined the importance of performance appraisal and its practices for organizations and firms and identify factors affecting corporate and business performance in various sectors (Dess & Robinson, 1984; Sapienza et al., 1988; McGrath et al., 1995; Song et al., 2005).

Assets play an important role in firm performance, especially fixed assets. The growth of fixed assets and the increase in their value is a positive indication of firms' growth and gives them the ability to obtain appropriate financing to perform their activities (Aboody et al., 1999). Furthermore, asset revaluations are escalating dramatically in business. These assets are often measured in terms of cash from operations and operating income.

This indicates that the revaluations reflect changes in asset value related to annual returns. Indeed, the relationships between revaluations, future performance and prices are - often - weaker for enterprises with high debt-to-equity ratios. Accordingly, The World bank's Enterprise Surveys collected information about 5 indicators to measure the firm's performance, namely, real annual sales growth, annual employment growth, annual labor productivity growth, capacity utilization, and percent of firms buying fixed assets.

Crime is a major issue that negatively affects local development in developing countries, like burglary, robbery, vandalism and arson all increase the total average cost of doing business. Firms are forced to pay additional costs related to security and insurance for certain properties or rights, and this may reduce the efficiency of firms, especially in developing economies. (Motta, 2017) indicates that there is a negative relationship between criminal activity and corporate performance for small and medium businesses.

After this brief presentation of various research results that have been exposed to corruption and its effects on the performance of enterprises, this study seeks to ascertain the extent of the impact of corruption on the Nigerian business environment. The World Bank Enterprises Surveys is adopted. Table 1 summarizes the studies covered in the literature review part.

Table 1. Literature Summary

Author / Year	Data Source / Methodology	Key Findings
Bai et al., 2019	More than 10,000 Vietnamese companies surveyed	Firm growth reduces bribes as a share of revenues
Abudu, 2017	Firm-level data of 15 African countries by the World Bank between 2006-2015	Corruption negatively affects the performance of African enterprises, especially in larger and older companies more clearly than small and medium-sized companies and young companies.
Williams et al., 2016	World Bank Enterprise Survey data on 106,805 enterprises across 132 developing countries	Bribery boosts company performance. Means that companies stress that institutions like their companies must give gifts or payments to public officials to get things done so as not to be late.
Chakravorty et al., 2016	World Bank Enterprise Survey firm-level data across 132 countries	Paying bribe to corrupt public officials enhances firm performance.
Bologna & Ross, 2015	Data collected from random audits of municipal govern-	A decrease in the number of eenterprises leads to high

	ments (Brazil)	levels of corruption, and this effect increases dramatically over time, indicating that corruption will be more harmful in the long run.
Ayaydın & Hayaloglu, 2014	Panel Data Methodology	In all cases, corruption has a positive effect on corporate growth, profitability, and financial pressure
Okolo & Raymond, 2014	Case Study	Political factors, social, and economic factors and the costs of corruption affect the performance of companies
Sahakyan & Stiegert, 2012	Survey data from over 400 Armenian businesses	Firms that do not face much competition and smaller companies have more corruption preferences.
Asiedu & Freeman, 2009	Firm-level data on investment	Enterprises in a region in transition, corruption negatively affects their investments, while companies operating in Latin America and Sub-Saharan Africa are often positively affected.
McArthur & Teal, 2002	Africa Competitiveness Report 2000/2001 (ACR)	Corruption negatively affects enterprises in two ways, locally production levels decrease by 20% and globally, efficiency levels decrease by 70%

Table 2. Size Distribution of Enterprise in Nigeria

Size of Enterprise	Frequency	Percentages
Micro < 5	184	7.32
Small > = 5 and < = 19	1.366	54.38
Medium > = 20 and < =99	738	29.38
Large > = 100	224	8.92
Total	**2.512**	**100**

3. DATA AND METHODOLOGY

3.1. Data Source and Description

After examining the data provided by the World Bank on enterprises in almost all countries across the world; Two variables were chosen to assess the impact of corruption on enterprises performance in Nigeria Panel Data for the years 2007, 2009, 2014. The two variables are corruption (independent) and performance (dependent). The data for this research is adopted from the World Bank's Enterprise Surveys.[3] The data covers 2,676 Nigerian enterprises Panel Data for the years 2007, 2009, 2014. The World Bank conducted this questionnaire with great care and accuracy, as it includes many enterprises in different sectors and different geographical areas within Nigeria. The survey covered enterprises by state or region. Each state contains more than 100 enterprises whose data has been collected.

Table 2 delivers some details regarding the enterprises' size participating in the survey. The small and medium-sized enterprises are 83.76 percent. While large enterprises represent only 8.92 percent. This could raise questions about the performance and growth of this sector in Nigeria.

3.2. Variable Description

For the purpose of this study, two classes of variables were used based on the available data. Nigerian enterprises performance and corruption. Performance in the survey is measured by 5 indicators, namely, real annual sales growth, annual employment growth, annual labor productivity growth, capacity utilization, percent of firms buying fixed assets as presented in table 3.

Due to the huge missing data of the study sample, this study has used *percent of firms buying fixed assets* as an indicator to measure the performance of enterprises in Nigeria. The survey focused on the percent of firms buying fixed assets such as machinery, equipment, land or buildings which could be a good measure of enterprises' performance. The indicators percentages are compared by Sub-Saharan Africa and all countries.

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3. https://login.enterprisesurveys.org/content/sites/financeandprivatesector/en/library/
library-detail.html/content/dam/wbgassetshare/enterprisesurveys/economy/nigeria/Nigeria-
2014-full-data.dta

Table 3. Nigerian Firms' Performance Indicators

	(1)	(2)	(3)
Capacity Utilization (%) *	74.0	70.1	72.9
Real Annual Sales Growth (%)	-8.1	1.8	1.5
Annual Employment Growth (%)	9.9	6.7	4.7
Real annual Labor Productivity Growth (%)	-14.2	-3.8	-2.7
Firms Buying Fixed Assets (%)	29.8	40.5	40.9

(**1**) Nigeria. (**2**) Sub-Saharan Africa. (**3**) All Countries.
Source: Enterprise Surveys www.enterprisesurveys.org, The World Bank, 2014.

Table 4 shows the corruption indicators that measure corruption. The survey questions covered 13 indicators that measure different aspects of practices that are supposed to express any activity that leads to corruption. The indicators percentages are compared by Sub-Saharan Africa and all countries.

Table 4. Corruption Indicators

I n d i c a t o r s	(1)	(2)	(3)
Bribery incidence (percent of firms experiencing at least one bribe payment request)	28.9	21.8	16.3
Bribery depth (% of public transactions where a gift or informal payment was requested)	26.0	16.7	12.7
Percent of firms expected to give gifts in meetings with tax officials	25.9	16.6	12.2
Percent of firms expected to give gifts to secure a government contract	28.6	32.4	23.6
Value of gift expected to secure a government contract (% of contract value)	1.6	2.4	1.4
Percent of firms expected to give gifts to get an operating license	24.2	15.1	12.7
Percent of firms expected to give gifts to get an import license	40.7	14.6	12.4
Percent of firms expected to give gifts to get a construction permit	24.4	24.5	20.6
Percent of firms expected to give gifts to get	32.9	22.4	14.9

	(1)	(2)	(3)
an electrical connection			
Percent of firms expected to give gifts to get a water connection	35.7	20.2	14.5
Percent of firms expected to give gifts to public officials "to get things done"	55.3	28.2	20.3
Percent of firms identifying corruption as a major constraint	44.8	40.9	32.8
Percent of firms identifying the courts' system as a major constraint	4.0	17.8	15.7

(1) Nigeria. (2) Sub-Saharan Africa. (3) All Countries.

Source: Enterprise Surveys www.enterprisesurveys.org, The World Bank, 2014.

Table 5 shows the variables selected for this study. Performance (Firms Buying Fixed Assets) is the dependent and corruption is the independents variable. The corruption is divided into two groups, graft incidence and a perceived need to make bribe payments (Chakravorty et al., 2016). *Graft incidences* measures whether enterprises experienced at least one request for a bribe payment across five types of application, namely for (1) an electrical connection, (2) water connection, (3) phone connection, (4) construction-related permit and (5) total annual informal payment to public officials. While the *perceived need to make bribe payments* based on the answer to the following question: '(6) It is said that establishments are sometimes required to make gifts or informal payments to public officials to 'get things done' concerning customs, taxes, licenses, regulations, services, etc.

Table 5. Definition of Variables

Variables	Description
Dependent Variable	
PERF	Firms Buying Fixed Assets
Independent Variables	
CORR1	Percent of firms expected to give gifts to get a water connection

CORR2	Percent of firms expected to give gifts to public officials "to get things done"
CORR3	Total annual informal payment to public officials
CORR4	Percent of firms expected to give gifts to get a phone connection
CORR5	Percent of firms expected to give gifts to get a construction permit
CORR6	Percent of firms identifying corruption as a major constraint
Control Variables	
SCOST	Average security costs as a percentage of total annual sales for all firms
TAXEr	Percentage of establishments that consider tax rates to be the Biggest Obstacle.

Notes: PERF= Performance, CORR= Corruption, SCOST= Security Cost, TAXEr= Taxes rates

Table 6 shows the statistics description of all the variables of the study. One thing that could be noted that the variables have different observations, some variables have huge missing data. Accordingly, the final observations of the regression results might be low. Table 6 illustrates statistic description of the all variables.

Table 6. Statistic Description of the Variables

Variable	N	Mean	Std. Dev.
PERF	8196	1.321	1.615
CORR1	1032	1.599	1.051
CORR2	8177	1.773	6.911
CORR3	5586	4454438.9	90209911
CORR4	989	1.694	0.76
CORR5	729	1.339	1.484
CORR6	8196	1.75	1.637
SCOST	4218	1581810.9	33256658
TAXEr	8043	6.66	4.846

Table 7. Correlation Matrix of the Variables in the Regression

Variables	PERF	CORR1	CORR2	CORR3	CORR4	CORR5	CORR6	SCOST	TAXEr
PERF	1.000								
CORR1	0.052	1.000							
	(0.096)								
CORR2	0.116*	-0.043	1.000						
	(0.000)	(0.168)							
CORR3	-0.049*	0.014	0.102*	1.000					
	(0.000)	(0.688)	(0.000)						
CORR4	-0.026	0.530*	-0.130*	-0.008	1.000				
	(0.420)	(0.000)	(0.000)	(0.802)					
CORR5	-0.015	0.772*	0.051	0.025	0.529*	1.000			
	(0.687)	(0.000)	(0.169)	(0.565)	(0.000)				
CORR6	0.068*	-0.019	0.117*	0.054*	-0.063*	-0.021	1.000		
	(0.000)	(0.539)	(0.000)	(0.000)	(0.047)	(0.580)			
SCOST	-0.027	0.016	0.045*	0.350*	0.036	0.031	0.043*	1.000	
	(0.080)	(0.688)	(0.000)	(0.000)	(0.329)	(0.530)	(0.006)		
TAXEr	0.066*	0.007	0.085*	0.010	0.017	0.119*	0.099*	0.013	1.000
	(0.000)	(0.815)	(0.000)	(0.447)	(0.596)	(0.001)	(0.000)	(0.401)	

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

3.3. Methodology

In this study, the pooled regression model is used to assess the impact of corruption on the performance of enterprises in Nigeria. Most of the empirical studies used multiple linear regression based on Ordinary Least Squares (OLS) to measure the effects of corruption on corporate performance or growth. The model is illustrated as follow:

$$y_{it} = \alpha + \beta_1 x_{it} + \beta_2 x_{it} + \ldots + \beta_k x_{itk} + \varepsilon_i$$

y_{it} is dependent variable with ith enterprise in time t, α is the intercept, and β is the coefficient of the explanatory variables x_{it} in time t, whereas ε_i is the error term (Wooldridge 2007). However, it is assumed that there is no heterogeneity or individuality among Nigerian enterprises. Therefore, the pooled model for estimation is,

$$PERF_i = \alpha + \beta_1 CORR1_i + \beta_2\ CORR2_{i+}\ \beta_3 CORR3_i + \beta_4 CORR4_i + \beta_5\ CORR5_i + \beta_6\ CORR6_i + SCOST_i + TAXESr_i + \varepsilon_i$$

where i denotes the firms, **PERF** is the dependent variable which refers to the enterprise's performance. α is the intercept. β_1 is the coefficient of the independent variables. **CORR1 to CORR6** are independent variables. **CORR6** is average security cost and **TAXEr** is percentage of taxes rates, while ε_i *is* the random error.

The results of inter-variable correlations in table 7 shows that most of

the indicators had a very low correlation rate, which is consider as a negligible correlation (0.00-0.30). There is only one exception, which is the percentage of firms expected to give gifts to obtain a water connection correlates with the percentage of firms expected to give gifts to obtain a building permit at a rate equal to 0.77. This link is originally expected; Because the water connection permit is closely related to the building permit as a result of the normal relationship between them. The rest of the correlations are significantly low. However, from the low correlation we cannot be certain that the regression model is safe from the multi-collinearity amongst independent variables.

Table 8. Linear Regression (Pooled)

Dependent Variable	I PERF	II PERF
$CORR_1$	0.244 (1.91)	0.286** (2.18)
$CORR_2$	0.0397*** (4.30)	0.0395*** (4.12)
$CORR_3$	-3.89e-09** (2.82)	-3.63e-09** (-2.51)
$CORR_4$	-0.390** (-3.27)	-0.449*** (-3.59)
$CORR_5$	-0.0828 (-0.75)	-0.087 -(0.73)
$CORR_6$	-0.0922** (-3.15)	-0.085*** -(2.76)
SCOST	--	-3.23 e-09 -(0.92)
TAXEr	--	0.02008* (1.79)
Constant	1.738*** (9.68)	1.621*** (7.94)
Observations	**114**	**98**
R-Squared	**0.2679**	**0.321**

t statistics are shown in parentheses, * $p<0.05$, ** $p<0.01$, *** $p<0.001$

4. RESULTS AND DISCUSSION

Table 8 reports the results of Pooled Regression Model. Two types of regression were applied. The first regression (I) focused on evaluating the effect of the independent variables on the dependent variable, ignoring the impacts of other factors. The second regression (II) took into account the role of control variables that may control the dependent variable (Enterprises Performance).

When the regression analysis was performed, the analyzable sample size observations dramatically decrease (n=114), in regression I instead of (n=2,676), and (n=98) in regression II due to the missing data of some indicators (See table 6). The R^2 tends to be slightly small and demonstrated (27%) of the variations in the performance of enterprises in Nigeria is explained by the variation in corruption I and it improved a little bit in regression II (32.1%). This is an expected result since there are six independent indicators to measure this effect.

$CORR_1$: *Payment to Get Water Connection.*

The results of regression (I) illustrate the indicator $CORR_1$, bribe payments or gifts to get a water connection, as having a positive impact on firms' performance but insignificant with coefficient value (0.244). However, when control variables were added in regression II, the variable became statistically significant and had a positive effect on firms' performance by coefficient value 0.288. A positive value indicates that the marginal increase in one unit for bribe payments or gifts to get a water connection, let say one Nigerian naira, leads to an increase in the performance of enterprises by approximately 29 percent. This result is in line with the study of Ayaydın & Hayaloglu, (2014) which found that the impact of the level of corruption, profitability and financial pressure on the growth of enterprises is overwhelmingly positive in all cases.

$CORR_2$: *Give Gift to Get Things Done*

The process that firms expected to give gifts to public officials *to get things done* ($CORR_2$) found to be significant and have a positive impact on an enterprise's performance in both regressions I and II (0.0395). It could

be noticed that the parameter does not change much after adding the control variables to the model. The positive coefficient indicates that if a gift was given in one unit, it could be cash or an item, then the firms' performance would increase by approximately 3.95 percent. This point out that paying a bribe or give a gift to public officers may reduce the time waisting in clearing tasks or get things done related to the public officers. For instance, if the enterprise does not pay the bribe through gifts and courtship of these officers, the transaction will be delayed, and this reduces the enterprise's performance. This finding supported by studies of Williams et al., 2016 and Chakravorty et al., 2016.

CORR$_3$: *Total Annual Informal Payment to Public Officers*

Total annual informal payment to public officials is significant and slightly negative in regression I and II. Theoretically, informal payments to public officers are bribery, punishable by law, and unacceptable to common sense. Consequently, it will have negative effects on firms' performance. This indicates that the higher the value of the annual total of informal or bribes paid to public officers, the lower the performance. But the degree of influence is minimal, based on the coefficient value of regression II (-0.00000000363). The result is in line with the study of Abdu. D, 2007.

CORR$_4$: *Payment to Get a Phone connection.*

The bribe payments/gifts to get a phone connection also significant at 1 percent and have a very high negative impact on Nigerian firms' performance. It is noticed here, the regression coefficient when adjusted by the control variables increased from -39% to -49%, i.e., nearly -50 percent. This means, for one Nigerian naira bribe payments or gifts to get a phone connection, the performance of Nigerian firms' will be decreased by 49 percent. Ultimately, all these practices increase the overall enterprises' costs.

This result is fully consistent with the transaction cost theory (Ayaydın & Hayaloglu, 2014). Transaction costs are defined as the expenses incurred in buying or selling a good or service. Transaction costs include brokers' commissions and spreads, which are the differences between the price a dealer pays for a security or commodity and the price paid by the buyer. Bribe payments to public officers in the form of gifts or other forms are of-

ten included in the cost of the final product. When transaction costs increase, performance becomes less efficient, and less liquidity is released to goods and services production.

CORR5: *Payment to Get a Construction Permit*

Bribe payments or gifts to get a construction permit has a negative impact on enterprises' performance but insignificant. This is simply explained by the fact that the enterprises sample are industrial, they do not deal with construction contracts directly or in a major way, they may need to build the first time when lunching the business project only, and then the impact of these activities on performance or bribes that are paid is very little or inconsiderable.

CORR6: *Identifying Corruption as a Major constraint.*

Regarding the *level of firms identifying corruption as a major constraint*, the result is significant and has a negative impact on enterprises performance. Hence, the Nigerian business' owners or managers emphasized that corruption is a major obstacle that faces their business's performance.

It is worth noting, after taking into account the importance of the controlling variables, the level of the significant dramatically increased (p-value less than 0.001), but the value of the regression coefficient slightly decreased from -9.22 percent to -8.5 percent. Indeed, this result confirms the sensitivity of this variable in the business sector to Nigerian firms. Perhaps if other variables are added as control variables, the result will be more accurate.

The results of the regression indicate that the performance of enterprises in Nigeria has been affected by different corrupt practices. However, these influences vary and sometimes differ. Studies show that firms' performance is influenced by factors other than corruption, such as crime and tax rates. The average values paid for the security measures will raise the total costs of the firm, and this leads to a decrease in its profits for a time and then a decrease in the level of performance. Also, high tax rates would lead to a decrease in the net profit of the firm, and a decrease in the final profits as a result, thus affect the performance of the firm.

To test these hypotheses, we will control the firms' performance variable. The standard scale for that are average security costs as a percentage of total annual sales and taxes rates.

SCOST: *Average Security Costs and Taxes Rates*

Average security costs as a percentage of total annual sales for all firms is insignificant and slightly negative. In terms of direction, the result is consistent with the hypothesis that higher costs lead to lower profits and hence poor performance, but still not important in our case.

In contrast to average security costs, tax rate (*TAXEr*) results indicate a positive impact and slightly significance (at 10 percent). These positive effects may explain that the vital public infrastructure is financed by governments with public revenues, including tax revenues, and then local firms operating in Nigeria benefit from these services in the performance of their business.

These results are entirely consistent with the study of Chauvet, Lisa, and Marin Ferry, 2020 which combined firm-level data from the World Bank Enterprise Surveys and tax data from the Government Revenue Dataset. Besides, Chauvet, Lisa, and Marin Ferry emphasized that this positive influence of the taxation rates often disappears when corruption is widespread in the country. Because it reduces government revenue related to taxes.

Although these two control variables are not directly related to the study model, and their results are not significantly influencing the Nigerian firms; However, they both contributed to improving the overall model fit, as the R^2 value increased from 26.8 percent to 32 percent. This means that whenever other variables are added (independent or controlling), the model will be more able to explain the impact of corruption on Nigerian enterprises.

The overall results show that the Nigerian enterprises' performance which measured by the percent of firms buying fixed assets is highly and negatively affected by corruption which is influenced by the practices of bribe payments that appear in many and varied forms. This may be explained by the fact that the buying and selling of fixed assets are linked to the corruption process. The enterprise may pay a bribe to expedite the sale, purchase, or customs clearance procedures, and these activities will reduce their efficiency (Aboody et al., 1999).

The empirical outputs are different from the study of Ayaydın & Hayaloglu, (2014). In term of impacts direction, Ayaydın & Hayaloglu found that the impact of the corruption, profitability, and financial leverage

on the growth of enterprises is remarkably positive in all cases and that there is a significant positive relationship between the growth of private enterprises and the level of corruption.

This could be explained by the fact that corruption can increase economic development. Perhaps the reason is that illegal practices and payments like "quick money" can bypass bureaucratic delays. Accepting bribes in government officers can act as an incentive and increase their efficiency and because corruption may be the price people are forced to pay because of market failure. However, the findings are confirmed by several studies such as (Bologna & Ross, 2015, McArthur and Francis Teal, 2002, Abudu, D. 2017)

Putting all together, the above results are based on the hypotheses that are anticipated to meet the study's objectives. On this basis, Table 9 summarizes the hypotheses test results.

Table 9. Summary of the Main Hypothesis Test Results

#	Hypothesis	Direction	Result
H_1	The high percentage of firms expected to give gifts to get a water connection negatively impact Nigerian enterprises performance.	Positive	Supported
H2	A high level of firms expected to give gifts to public officials "to get things done" has negative effects on Nigerian enterprises performance.	Positive	Supported
H3	The total annual informal payment to public officials negatively impacts Nigerian enterprises performance.	Negative	Supported
H4	Firms' high expectation of giving gifts to get a phone connection has a negative impact on Nigerian enterprises performance.	Negative	Supported
H5	Firms' high expectation of giving gifts to get a construction permit has a negative effect on Nigerian enterprises performance.	Negative	Not Supported
H6	Identifying corruption as a major impediment to business activities has negative effects on Nigerian enterprises' performance.	Negative	Supported

5. CONCLUSION

This study assesses the impact of corruption on the performance of enterprises in Nigeria, based on Panel Data for the years 2007, 2009, 2014 obtained from the World Bank enterprises surveys. The previous studies were analyzed in a short and limited way to identify the variables and their results according to the different studies. After describing the data, a pooled regression was applied to determine the effect of corruption on Nigerian enterprises performance.

The study found that bribe payments or gifts to get a water connection has positive impacts on enterprises' performance and significant. However, the total annual informal payment / gifts to public officials, bribe payments or gifts to get a phone connection, and level of firms identifying corruption as a major constraint are significant and have a negative impact on Nigerian enterprises. This effect could be considered as a short-term effect.

On other hand, the indicators; bribe payments or gifts to get a water connection and bribe payments or gifts to get a construction permit are also statistically significant, which may indicate the medium or long terms effects. These results are supported by the theory of transaction cost, which says that it is necessary to reduce the costs associated with the production to the lowest possible level to raise the profit margin and then improve the firm's performance. Unlike other studies, this study indicates that corruption represents an obstacle to Nigerian enterprises' performance.

The argument is that public authorities should move away from increasing the costs of corruption by improving disclosure risks and penalties, and instead focus on the formal institutional flaws that lead to widespread corruption in the developing world.

Further recommendations are provided as follow:

- Nigerian industrial firms can look for other methods that may be more effective than buying or selling fixed assets, such as financial leasing, for instance, to reduce or avoid bribe payments to public officials.
- People should be educated about the dangers of excessive materialism and a "get-rich-quick" culture. There is also a need for more job creation with better pay.
- Promote the activities or programs of anti-corruption agencies in Nigeria

such as the Economic and Financial Crime Commission and other independent commissions in the country.

Finally, it must be mentioned that this study has some limitations. These restrictions are as follows:

✓ The survey variables were mainly focused on enterprise factors excluding other economic factors.
✓ The methodology used is pooling regression model to assess the impacts. Moreover, the study also mainly focuses on corruption variables and their indicators to measure Nigerian enterprises' performance. The performance is controlled by average security costs as a percentage of total annual sales for all firms and percentage of tax rates.

However, more in-depth research should be done by adding more variables including economics and environment variables as well as some Nigerian enterprises demographic factors.

YOLSUZLUKLARIN NİJERYA İŞLETMELERİNİN PERFORMANSINA ETKİSİ: AMPİRİK BİR ÇALIŞMA

Özet: Bu çalışma, 2007, 2009, 2014 yıllarına ait Dünya Bankası'nın İşletmeler Araştırması'ndan (Panel Verileri) elde edilen verileri kullanarak yolsuzluğun Nijeryalı işletmelerin performansı üzerindeki etkilerini değerlendirmeyi amaçlamaktadır. Havuzlanmış Regresyon Modeli uygulanmıştır. Elektrik bağlantısı, su bağlantısı, telefon bağlantısı, inşaatla ilgili izin, kamu görevlilerine yıllık toplam gayri resmi ödeme ve işleri halletmek için kamu görevlilerine hediyeler vermek olmak üzere altı gösterge ile ölçülen yolsuzluktur. Sabit kıymet alım satımı ile ölçülen performans. Su bağlantısı için yapılan ödeme önemli olduğundan ve firmaların performansını olumlu etkilediğinden, çalışmanın sonuçları bir şekilde zıttır. Ancak inşaatla ilgili izin, performans üzerinde olumsuz bir etkiye sahiptir, lakin önemsizdir. Bu arada, kamu görevlilerine "işleri halletmek için" hediye vermesi beklenen firma düzeyi önemli ve işletmelerin performansını olumlu yönde etkilemektedir. Kamu görevlilerine yapılan toplam ödemeler ise önemlidir ve orta veya uzun vadeli etkileri gösteren olumsuz etkileri vardır. Bu, gelişmekte olan ekonomilerin etkisiz kamu yönetimi ve zayıf hukukun üstünlüğü gibi resmi kurumsal kusurlarla nitelendirilmesiyle açıklanabilir. Diğer araştırmalardan farklı olarak, bu çalışma, yolsuzluğun Nijeryalı işletmelerin

performansına bir engel teşkil ettiğini göstermektedir. Kamu yetkilileri, şeffaflık standartlarını uygulayarak yolsuzluğun maliyetini artırmaktan uzaklaşmalıdır. Girişimciler ayrıca rüşvet ödemekten kaçınmak için leasing finansmanı vb. Gibi alternatifler aramalıdır.

Anahtar Kelimeler: Yolsuzluk, Performans, İşletmeler, Dünya Bankası'nın İşletme Araştırmaları, Nijerya.

JEL Kodları: G38, G30, D73

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