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DOES WOMEN PARTICIPATION IN GOVERNANCE REDUCE CORRUPTION AND INCOME INEQUALITY? EMPIRICAL INVESTIGATION FROM NIGERIA.

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ABSTRACT

The study examined if women's participation in governance reduces corruption and strengthen governance efficiency in Nigeria using annual data from 2000-2019. The study was conducted following a three-step regression model where the percentage of women's participation in parliament and gender parity was chosen as moderating variables. The study observed that corruption harmed governance efficiency given the limited participation of women in parliament. The study further observed that increasing women participation in governance has the remote effect of reducing level of corruption in Nigeria as well as reducing income disparity in the economy. The study concludes that increasing women's participation in parliament should not only be encouraged for the sake of obtaining gender equality in parliament but because such participation has positive externalities - enhancing governance efficiency, increase per capita income, and reducing the negative impact of corruption on the economy. The study suggested that the government should pass a mandatory legislative bill that will specify a gender-neutral quota for women's participation in the parliament and other spheres of political activism.

KEYWORDS: Governance efficiency, corruption, income inequality, economic growth, women participation in parliament.

JEL classification: O15, H11, B54, B55

INTRODUCTION

Recent development in the political arena has witnessed increase agitation in the quota of women participation and involvement in politics. This social awareness has been greeted with loud applause as some countries have witnessed reduction in barriers regarding women exclusion from electioneering and actual voting process. However, in some countries women are still struggling to gain prominence and acceptance in participating in decision making either by vying and contesting for elective positions or being appointed into prominent positions in private and public service. According to Kelly (2019), the reasons easily adduced for low women representation are, lack of effective government

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action, low level of female employment and education, sexist attitude, a corrupt and patronage-based political system and violence at elections.

In Nigeria, the National Gender Policy (NGP) recommended that 35 percent (both elective political and appointive public service positions) of the affirmative positions should be represented by women. Despite this recommendation the country has witnessed only about 6.7 percent representation in both elective and appointive position. The extent of representation is far below the African Regional Average and the Global Average of 23.4 and 22.5 percent respectively (Oluyemi, 2018)

The importance of women participation in politics is essential to building and sustaining strong, vibrant democracies. A sound democratic process is described as one that will be all inclusive (without regards to race or gender), devoid of sectionalism, nepotism and has a strong value system.

There have been serious concerns regarding the level of participation of women in governance, with most countries pushing for greater participation of women in politics and governance. The subject of women's inclusiveness in governance has necessitated adopting the acronym of gender balancing in governance. Therefore, gender balancing is synonymous with allowing greater participation of women in governance. Studies on governance and income inequality suggest that corruption is more perpetrated by men in government (Gottfredson & Hirschi, 1990). Some other studies have also shown that women are more intolerable to criminality, corruption, and social vices, mostly when found in governance. Their (women) concern is often centered on ensuring the society is treated justly and equitably. However, it may be observed that gender issues related to governance are not solely based on women as light-minded and pleasant, but on their ability to be more organized, sincere, and often seeking perfection in office.

Recently, several countries have witnessed increasing participation of women in governance and politics. Some countries even have women as their President and Heads of Parliament. This is more so because liberal democracy seeks to promote women's involvement in governance through either appointments or elective positions. Rivas (2008) had observed that if a woman is heading a public institution, the firm is also assumed "a woman." Rivas (2008) had also demonstrated that firms headed by women could promote good governance since women have exhibited a low possibility of accepting a bribe or choosing alternative corrupt practices.

Transparency International has suggested that Nigeria has a 3.38 per cent of women in governance. This point to the assertion that legislative positions are predominantly occupied by men, leaving women to push for inclusiveness in governance. In such an economy dominated by men in government Alatas et al. (2007), Esarey & Chirillo (2013) have opined that such country is bound to witness a high level of corrupt practices and this therefore over score the necessity to encourage women participation and inclusiveness in governance (Charron et al. (2013), Wängnerud (2012), and Agerberg (2014)

The subject of efficiency in governance has been closely knit to the absence or reduction in corruption in public offices. Governments of all countries have been pushing to provide improved amenities for their citizenry by fine-tuning some macroeconomic policies. Governance describes all mechanisms instituted by a country to oversee the smooth running of the administrative system. It includes policies, programmes, frameworks, and even road maps established to guide the government's processes towards achieving desired and acceptable goals. Therefore, it is expected that those either elected or appointed into administrative or political positions should enhance better management and allocation of public resources. According to Alam et al., (2009), good governance can only be accomplished in a system virtually free from abuse and corruption, and a system that gives due regard the enthronement of rule of law According to Ghimai, K T (2011), good governance is an essential precondition for any country to achieve income equality, full democratization and sustainable economic development. Additionally, Olson, Sarna, & Swamy, (2000) were quick to also add up that the level of growth of any country depend on the differences in the quality of governance instituted by the country.

Corruption has been identified as not only one of the major factors limiting the implementation of monetary and fiscal policies, but also a factor that is delimiting the growth of many countries. Some analysts even believe that the major obstacle to achieving efficiency in governance is the magnitude of corruption inherent in the system. In

one of the political events in Nigeria, members of the upper and lower house leadership were engulfed in a debate in an attempt to defend the inflation of certain items in the nation's budget in what was termed "budget padding". These obnoxious practices have often witnessed the inflation of budgetary estimates of capital projects, which does not often translate to physical infrastructural development. It is often thought presumably that such expenditure padding culminates in revenue leakages, which often find their way into personal pockets. This behavior by political leaders not only reduces the effectiveness of financial appropriation to projects, but also, erodes the citizen's confidence in governance.

In some countries where governance efficiency has been reported to be low, credence has been given to the incidences of a high level of corruption in governance. The nature and system of governance in practice (whether democratic or military) incongruously determines corruption in a country. In contrast, most countries favour the democratic system of governance since it has been adjudged to bring governance closer to the grassroots populace. It is also expected that such a system of democratic administration will ensure that the populace who constitutes the more significant percentage of the poor in the society will benefit from the generosity of governance. However, most countries, particularly, African countries that adopted the democratic system of governance (often acronymic as "government for the people and by the people"), have also been characterized by a high level of corruption occasioned by bad leadership. Bad governance undermines institutional structures, enforces bureaucratic bottlenecks and rigidity, reduces freedom of the press, and enthrones mediocrities in government positions, which at the same time undermines human rights freedom. All these factors culminate in reducing the country's pace of development, leading to sectional lopsidedness in the distribution of resources, budgetary misallocation to the various components of the sectors of the economy, and increase in income inequality.

Considering the peculiarity of the Nigeria nation as a male chauvinist country, men are dominant in all sectors of the economy. There is extensive discrimination in the allowable number of women participating in a party and political contests. Allowing women to contest only remains in legislation, but women remain unrepresented in electoral processes compared to their male counterparts. This study will examine if increasing women's participation in governance will improve government efficiency and reduce corruption in Nigeria. Questions prompting for answers are, (1) does increase women's participation in governance reduce corruption and enhance governance efficiency? Furthermore, (2) does women participation in parliament enhance decisions making process that would evoke policy change and ultimately lead to a decrease in income inequality? The objective of this research is to if women participation in governance has the potential to reduce corruption as well as enhance governance efficiency. The study shall also examine if women participation in governance could engineer a policy shift that would be necessary in reducing income inequality in the country. The hypothesis will follow in line with the objectives so far stated.

LITERATURE REVIEW

Governance can be defined as the process employed to achieve the noble end of the state (Azeez, 2009). Good governance, among other things, must be participatory, transparent, and accountable, effective, and equitable, as well as promotes the rule of law. In upholding the rule of law, good governance must ensure the effective and equitable distribution of the state's resources among citizens and operate within the confines of well-articulated objectives of the government.

The relationship between good governance, efficiency in government, and corruption has taken centre stage of discussion, particularly amongst developing countries. To achieve good governance, most countries (both developed and developing) now clamor for gender inclusiveness and accountability in governance without any facet or individuals being excluded.

World Bank (1992) described good governance as "how power is exercised in managing a country's economic and social resources for development." As nations grow and integrate into the world order, there has been an outcry for good governance. Studies have shown that there exist six dimensions of governance: voice and accountability, political stability, government effectiveness, regulatory quality, the rule of law, and control of corruption (Lee, Choi, Kim, & Jung, 2018). Each of these governance dimensions is integrated and fused together. Like the Siamese twins, one does not exist with the other.

Every government, through the legislatures, established anti-corruption bills. This anti-corruption bill is instituted to curb or limit the extent of corruption in society. Anti-corruption bills are passed by the nation's national assembly and enforced by anti-graft agencies. However, it is one thing to pass such bills into law and having such bills implemented. Anti-graft agencies ensure that all persons accused of corrupt practices in the country are brought to face the wroth of the law despite whose ox is gored. When institutions that is supposed to uphold anti-corruption principles and enforce the rule of law fail in their responsibility, corruption is then subsequently enthroned as citizens subvert the laws and try to provide for themselves sufficiently by obtaining bribes and other illegal means.

The real essence of preferring a democratic system of government to other forms of governance is that democratic system of governance is believed to enthrone transparency, accountability, and rule of law. If well practiced should eventually lead to the achievement of good governance. It is envisaged that the government ran by the people through elected representatives has the sole mandate of respecting, promoting, and upholding leadership that will ensure the delivery of basic needs to enhance the welfare and development of the society. The beginning point of ensuring good governance is the nature of the composition and character of the elected representatives. The elected representatives' design and appointment superimpose the need to ensure that no particular segment of the society or sexes is given more priority than the other. This, therefore, means that every qualified individual has an equal chance of being appointed or elected in whichever and whatever position of authority.

A growing interest has since arisen in need to give women equal opportunity in governance. Some literature works have demonstrated their persistence by asserting that women are less corrupt when appointed in administrative or political positions (Dollar et al., 2001; Swamy et al., 2001). The Inter-Parliamentary Union (IPU), an organization that monitors the extent of involvement and participation of women in the lower and upper houses, reported that two countries (Rwanda and Bolivia) are at the forefront of nominating women into the upper and lower houses. According to IPU (2016), Rwanda and Bolivia have achieved the upper mark of having more than 35 per cent of women representation in the upper and lower houses. Rwanda leads all other countries at 63.8 percent female representation in the Lower House. Arguably, this index of women's representation in either the upper or lower houses does not measure how influential women might be in the House. Still, it does show that (1) the willingness of electorates to vote women into offices (2) a deliberate desire to accept and make changes in policy that affects the generality of the society.

Recent activism has brought to fore the role of woman participation in governance. Women are regarded as having the right to vote, elected officers into government, and having the right to be voted for and appointed into administrative and legislative positions. Since the novel United Nations fourth World Conference on Women held in Beijing in 1995 where Hilary Clinton declared that "women's rights are human rights" (Reichert, 1998), women have been seeking equality in representation and governance participation. Following this meeting's dropout, Canada Prime Minister Justin Trudeau appointed a 50/50 cabinet wherein women were given equal representation with men. Otunba (2020) further observed that women perform two-thirds of work for 10 per cent of income worldwide, and only 1 per cent own assets.

Advocacy for women's participation in governance is driven from the standpoint that women appointed into administrative or political positions are less corrupt (Esarey & Schwindt-Bayer, 2017). In recent times, corruption has been a notch that has been described as opposing good governance and limiting the benefits of a welfare state. Countries (both developed and developing) now pursue programs to improve their citizens' well-being by reducing poverty, enhancing social and economic welfare, and adequate income distribution. Countries have also developed several economic policies that are geared towards improving economic development. Improvement in citizens' well-being is known to guarantee economic growth by improving the quality of life and increasing human capital development. Thus, anything that interferes with these programs and policies will ultimately affect that nation's economic development and growth.

Tootell, (2015) examined the effect women if elected into government, will have on governance efficiency for 1018 countries over the period 1997 to 2011. The study adopted the following as control variables; real GDP per capita, level of

democracy, and index of globalization, while the percentage of women in parliament and governance efficiency was adopted as independent and dependent variables. A two-step approach was adopted to examine the existing relationship between the variables. First, the study utilized the bivariate regression to examine if a relationship exists between women in parliament and governance efficiency. While confirming the existence of a linear relationship, the study further controlled for levels of economic development, globalization, and status of development of the country's democratic system. The result of the scatter plot revealed that there exists a unique linear relationship between the percentage of women in parliament and governance efficiency. The variables that also controlled for development level, level of the democratic system, and globalization were also positive and significant in the model. The study concluded that increasing the percentage of women in governance has the positive effect of increasing the country's GDP level and improving governance efficiency in the system.

Many researchers have advocated for mainstreaming gender balance in governance as a panacea against corruption. According to Sida (2015), gender balance is achieved when women and men, boys and girls, have equal rights and opportunities to contribute to governance and contribute to society's development. Women and children are more adversely affected by the practice of corruption than men in society because of their vulnerability and dependence on men for daily upkeep. Thus, women are not readily exposed to/having much access to funds required to spend on corrupt officials or persons holding political power.

A study carried out by Transparency International (2016) suggests that women seek to pursue a separate political agenda than men when found in public offices. For instance, (a) women will seek to pursue improvement in public service delivery that will benefit women and children (b) to break up male chauvinism collusive network and further prove that they can also do better what the men are found doing. This latent intention perceived to be exhibited by women places them in a position where they are less risk-takers in society.

Esarey & Chirillo (2013), Esarey & Schwindt-Bayer (2017) have also demonstrated through the use of cross-sectional data that females elected into assemblies and parliaments have reduced incidences of corruption. Studies that attempt to justify the inclusion of women in governance have been based on the premise that women are more risk-averse than men. Since corruption is a criminal offence that attracts punishment, women are more afraid of being punished publicly (a disgrace that most women would not want to face). Thus, women seek accountability while in public office and would work assiduously to promote good governance and reduce corruption in public offices.

Dumont (2017) undertook a comparative study of women's participation in government using data from Rwanda and Bolivia. These two countries' choice arose from the fact that both countries have similar institutions with over 30 percent of female representation in the Lower House and have different levels of corruption. The study utilized quantitative and qualitative analysis techniques to show that corruption had significantly reduced when women were integrated into governance. The study demonstrated that increasing female participation in politics could reduce corruption, strengthen democratic governance, and institutionalize accountability.

Debski & Jetter (2015) examined the relationship between gender and corruption while controlling for country-specific heterogeneity using a panel framework. While applying a no country-fixed panel effect, the study confirmed that women's involvement in governance reduces corruption. However, a non-linearity relationship between women's involvement in governance and corruption was observed when a fixed effect was introduced. The non-linearity relationship was broadly observed amongst African countries. An increase in female participation in the employee workforce leads to a reduction in the level of corruption by 2.5 index points. However, this study cast doubts on the expected influence of involving women in governance but notes that such expected influence is generally country-specific.

Earlier studies on the subject of women participation in governance have shown that corruption is more perverted by public officials within higher and middle income class in the society, while the worst hit are people of the lower income class (Dollar, Fisman, & Gatti (2001). The higher and middle income class public workers are often the policy makers and hence evolve policies that will accentuate the transfer of wealth from the lower class to the

higher class thus, widening the income inequality gap. According to Dwiputri, Arsyad, & Pradiptyo, (2018) in the implementation of bribery and extortion, public officers of the higher and middle income class have more options and resources to pay for extortion, bribe and manipulation of public expenditure projects than the lower income class public workers.

In a similar vein Sundström & Wängnerud (2016) observed that corruption was more prevalent within informal institutions which are shrouded with weak formal political institutions. The authors further noted that where corruption, partiality and ineffective governance are prevalent, then the process of excluding women in recruitment processes tends to be present. In other words, in corrupt settings recruitment to leadership is usually made through informal institutions rather than through formal processes. Given these network process of recruitment (which lacks transparency) women are usually weeded out of governance.

Xu (2015) undertook a study to determine female participation in economic growth using panel data from selected Asian countries for the period 1990-2013. The study regressed the following independent variables: percentage proportion of seats held by women in parliament, percentage proportion of female enrolment in schools (representing the education of female preparatory for the future administrative office, measured as the ratio of girls attending primary education to the total enrolment) percentage population growth, percentage trade by GDP, against GDP per capita. The study results revealed that the coefficient of female participation in parliament and girl-child education was positive though insignificant. These results could be explained that female political participation and percentage enrollment of girls in schools positively impact economic growth, which means that the number of women in parliaments positively influences the national economy. The low value of the coefficients means that though the female participation in parliament and girl-child education is positive, the magnitude of this relationship is small.

Though some researchers have adopted multidimensional perspective in the study of gender and corruption using either panel or cross-sectional data, Charron et al. (2013), Wängnerud (2012), & Agerberg (2014) disapproved of these multidimensional perspectives in the study of gender issues, claiming that countries have peculiarities in gender issues and as such should be treated distinctly. Their stance is founded on the fact that certain social, religious and cultural factors can mitigate the involvement of women in taking governance responsibilities. Where these stances are strong, women are often seen exercising domestic responsibilities with limited access to governance.

Women have often been regarded as vulnerable species since they are often exposed to male battering, assaults, marital abuses, rapes, exclusion in governance, and many more vices. Following the 2005 Beijing conference, it became very urgent to establish gender-sensitive laws that will protect, empower, and give the women and the girl-child voice in society. In some countries (for example, Rwanda), women are given quotas to fill in each legislative House. Asidu, Branstette, Gaewad-Babulal, & Malokele (2016) adopted the ordered probit and ordered logit ordinary least square methodologies to examine whether countries with a higher share of women in parliament are more likely to pass gender-sensitive laws using data from 159 developing countries. Their study observed that developing countries with a higher share of women representation in the parliaments have more propensities to pass laws on sexual harassments, rape, domestic violence, and assaults than countries with a limited share of female representations.

Swamy, Knack, Lee, & Azfar (2020) also examined the effect of women's representation in parliament on corruption using micro-data set from 350 selected firms in Georgia. The research adopted three measures for women representation viz (a) the proportion of legislators in the national parliament who are female, (b) the proportion of ministers and high-level government bureaucrats who are women, and (c) women's share of the labour force, while also adopting the Transparency International measure for corruption index. The study included that women participation in governance has the propensity to improve per capita income of citizens in the country. The study also observed that cultural inclination of the country (especially, countries predominantly by either by Catholicism or Islam have the effect of lowering women participation of women in politics. In conclusion, the authors made the following suggestion from their study (1) corruption is less severe where women hold a larger share of parliamentary seats and senior

positions in the government bureaucracy (2) countries with cultural and religious bias have fewer women representation in parliaments, hence increases the probability of corruption.

Bauhr, Charron, & Wangnerud (2019) investigated the effect of women representation in parliament in reducing petty and grand corruption using sub-national-level data for up to 182 regions in 20 European Union countries. The study further used the Generalized Linear Model (GLM) to capture petty corruption models at the regional level. The study results show that the inclusion of women in locally elected assemblies is strongly negatively associated with the prevalence of both petty and grand forms of corruption. The study observed that women who seek political offices do so for two reasons: (a) the improvement of public service delivery, particularly the care-oriented services that benefit female-oriented sectors, such as education and health care traditionally, (b) the breakup of male-dominated clienteles' network.

Voice representation has been viewed as one of the robust strategies in enhancing governance efficiency and reducing corruption. Voice accountability is viewed as when the electoral process participants speak out when irregularities and mal-governance are observed in the system. A liberal democratic economy promotes and encourages freedom of the press and electoral accountability. When women's voices are gagged, or even if they speak out and their voices do not count, governance efficiency will be hampered (Brollo & Troiano 2016).

Although economists do not have a common position on the exact effect corruption has on economic growth, many authors have proven that corruption lowers the value of money invested in human capital development in terms of inefficient utilization of public resources and the number of people trained concerning resources expended (Bardhan, 1997; Azariadis & Lahiri, 2002; Ehrlich & Lui, 1999; Mauro, 1995). Similar to this, authors also hold that corruption increases criminal activities such as kidnapping, money laundry, illicit trade, tax evasion, and misuse of public properties (Beck & Maher,1986, Lien, 1986).

Even though authors disagree on the exact effect that corruption has on economic growth (whether negatively or positively), there seems to be a consensus that corruption must have a unique pathway that it passes through to affect economic growth. Mo (2001), Pellegrini (2001) and Wacziarg (2001), Obamuyi & Olayiwola (2019) posit that the transmission channel of corruption to economic growth is via investment, human capital, government expenditure, inflation, and political instability. Mohamed (2013) found out that besides the previously identified channels, corruption also influences economic growth through government expenditures and political instability. However, the five transmission channels highlighted above are viewed as macroeconomic variables. At the micro-economic level, some researchers have established that corruption affects the economy via the primary sources of income growth.

The works of literature seem to agree that increasing the involvement of women in governance has the positive impact of increasing government efficiency and reducing corruption. However, this effect is dependent on the level of the country's democratic system, freedom of the press, and level of voice accountability of the electorates (Stockemer 2011). Cultural practices and the country's religious inclination also play a huge role in determining women's involvement in democratic governance, especially in male chauvinistic society. However, the point of disagreement has been the type of methodology applied in the analysis. Some researchers (Asidu, Branstette, Gaewad-Babulal, & Malokele, 2016) have adopted either the multidimensional approach of using the panel data, ordered probit, or ordered logit. Other researchers (Charron et al.,2013. Wängnerud, 2012 and Agerberg, 2014) have criticized these methodologies because countries have different religious or cultural practices. Therefore, grouping these countries might present wrong hypothetical results.

Taxonomy of selected countries identifiers

Transparency International has grouped countries according to their level of perceived corruption and their level of governance efficiency.

Countries described as less corrupt are countries with low indexes of corruption perception, while countries with high corruption perception are described as highly corrupt countries. This study selected five advanced income countries and five low-income countries to comparatively examine Nigeria's level of government efficiency and corruption perception. Furthermore, five parameters of comparison were selected, which include (a) country's corruption index, (b) level of women participation in governance, (c) governance effectiveness (d) innovation and economic decline.

World Bank 2019 selected index

Countries	Corruption index	Women in governance	Governance effectiveness	Innovation	Economic decline
Advanced Income countries					
Denmark	87	39.11	1.87	58.40	1.60
Norway	84	40.83	1.89	51.90	1.90
Finland	86	47	1.98	59.8	2.90
Sweden	85	47.28	1.83	63.70	1.50
Low-Income countries					
Botswana	61	9.53	0.33	25.40	5.80
Ghana	41	13.09	-0.21	25.30	5.7
Albania	35	29.51	0.11	30.30	6.0
Algeria	35	25.76	-0.44	24.0	6.30
Bangladesh	26	20.63	-0.75	23.3	6.10
Nigeria	26	3.38	-0.12	23.90	7.80

Source: World Bank repository

The record presented above reveals that Sweden, which is rated as one of the countries with the lowest record of corruption, has a 47.28 percentage of women participation in governance. A closer look at the data also reveals that Sweden has a governance rating of 1.83and innovation rate of 63.7 percent. The possibility of facing severe economic decline is placed at 1.50 percent. Closely followed to Sweden is Finland, which has a corruption index of 85 and a 47 per cent level of women governance involvement. Finland has a governance efficiency level of 1.98 and an innovation level of 59.8 per cent. Given the high level of women's participation in governance, Finland has a possibility of 2.9 percent experiencing economic.

A look at the extent of women's involvement in governance revealed that Nigeria had 3.38 per cent involvement of women in governance. Given the low level of participation of women in governance, Nigeria has a negative value of 0.12 percent in governance efficiency, with the possibility of experiencing economic decline placed at 7.80 percent. Algeria, a similar African country, has 25.76 percent of women involvement in governance with a governance efficiency value of -0.44 and a possibility of experiencing economic decline at 6.30 percent.

Some of the significant points here are that countries (Sweden, Finland, Norway) with increased governance involvement have a high governance efficiency level and a low possibility of economic decline. On the contrary, countries with low participation of women in governance experience a low rate of governance efficiency and a high possibility of experiencing economic decline.

The figures above represented in the table indicate that Nigeria had a negative value of -1.02 for governance effectiveness. This is the highest amongst the selected low-income countries studied. This figure could be interpreted as indicating that the Nigerian public service is downright perverse with politicians who wholesomely and collaboratively exert corrupt practices in governance.

DATA AND VARIABLE DESCRIPTION.

The study will utilize annual data sourced from the World Bank repository. It will span the period 1992 to 2019 (most of the variables utilized for this study had data only available for this period). Variables used in this study include both the independent, dependent variables. The

independent variables are made up of the moderating variable and control variables.

The moderator in this study is the percentage of women in parliament (WIP). We use this variable to indicate the percentage of women involved in politics, as most literature has shown (Dollars et al., 2001; Swamy et al., 2001). Although some literature has favored the use of women's percentage ratio in the labor force, this data will be difficult to access.

The country's corruption level will be measured by the Corruption Perception Index (CPI) established by Transparency International. CPI has emerged as the benchmark index in cross-country corruption studies, mainly because it incorporates petty greed and grand corruption measures. CPI is a continuous variable whose values range from 0 (high corruption) to 10 (low corruption) (Lambsdorff, 2006).

Governance efficiency is the explained variable whose value is an interval-level variable, measured on a continuum of negative -3 to +3, with all countries falling between the range of 2.510756 and 2.6358976. (Tootell, 2015). It is often assumed that a governance index of
-2.5 signifies weak governance efficiency and a value of +2.5 as strong governance efficiency (The Global Economy, 2020)

The control variables include per capita income and level of girl-child education. Per capita income measures the level of income earned by the country's citizens in a specific year. It is measured by dividing national income by the total population. It is one of the three measures for calculating the Human Development Index of a country. It is often used to ascertain a country's development status. It has also been argued that countries with higher incomes may constrain corruption more effectively than in developing countries (Treisman, 2007).

The girl-child education is used to measure the girl-child's level of preparedness to take up the responsibility of leadership in the future. It is measured by the fraction of primary school enrolment for girls vis-a-viz the male child enrolment.

When more girls are trained in primary/secondary schools, it empowers them to take positions of responsibility in politics and equipping them with the knowledge of how to superintend over government policies adequately.

METHODOLOGY

A three-step approach will be used to conduct this research. In the first approach, the study will utilize the bivariate regression model to test the direct relationship between Governance Efficiency (G.E.) and Women in Parliament (WiP). This is aimed at determining if the level of women in parliament will increase governance efficiency. A scatter plot regression diagram will also be used to confirm the linear relationship between these variables.

$GE = \alpha o + \beta_1 WiP + \varepsilon t$ ---------- (1)

Where G.E. represents Governance efficiency, WiP represents the percentage of Women in Parliament, and εt is the error term. It is expected that the coefficient of WiP should be positive, indicating that governance efficiency should increase as the percentage of women in parliament increases.

The second approach is to introduce all other variables into the model, but without the mediating variables. The aim is to examine the influence of women-in-parliament variable side by side with other correlating variables. This study assumes that increasing the percentage of women in parliament should positively influence governance efficiency reduction in corruption. Per capita income and corruption should exert a positive and negative effect on governance efficiency, ceteris paribus.

$GE = \alpha o + \beta_1 Cor + \beta_2 GCE + \beta_3 WiP + \varepsilon t$---------- (2)

The third model is estimated to examine the response of governance efficiency to the moderating variables. The chosen moderating variables are women-in-parliament and the proportion of girl to boys education. The justification for including the percentage of girl-child education as a moderating variable is based on the premise that the girl-child's early

education will empower them with the requisite knowledge to seek for their constitutional rights to be included in governance processes in later years. Therefore to ensure continuity in governance efficiency, the girl-child must be empowered to grow into affluent and educated womanhood. Gender Parity Index (GPI) is used as a proxy for girl-child education, measured as girls' ratio to boys enrolled in public and private institutions. A GPI of less than 1 suggests that girls are more disadvantaged than boys in learning opportunities and vice versa.

$GE = \alpha o + \beta_1 Cor + \beta_2 Cor*WiP + \beta_3 Cor*GCE + \varepsilon t$---------- (3)

The study adopted per capita income (GRT) as a control variable. The workforce of the citizens determines the level of development of a country. A workforce that is remunerated with low wages has a high tendency to be exposed to condoning corrupt practices. Some researchers have posited that corruption is more prevalent among wealthy nations since their ability to restrain from bribery and other corrupt practices is minimal (Swammy et al., 2000). Thus, governance efficiency is enhanced when income disparity is low.

$GE = \alpha o + \beta_1 Cor + \beta_2 Cor*WiP + \beta_3 LogPCI + \beta_4 Cor*GCE + \varepsilon t$---------- (4)

Where per capita income and percentage of girl-child education are represented as (PCI) and (GCE) and other variables are as previously defined.

The magnitude of the size of effect will be estimated using the change (increase or decrease) in the values of R, R^2, and Adj R^2. An increase in the values of R, R^2, and Adj R^2 signifies that there exists a significant effect of the $\beta_1 Cor*WiP$, $\beta_2 PCI*WiP$, and $\beta_3 GCE*WiP$ on the dependent variable.

Robustness check

Three tests were performed to determine the suitability of the data for analysis. A correlation result was performed to determine the degree of relationship between the correlates. The study also applied the vector inflation factor (VIF) and the Breusch-pagan test to confirm the presence or absence of heteroscedasticity in our model.

The correlation test result does not suggest the presence of heteroscedasticity since all the variables exhibited a maximum relationship of 62 percent. Furthermore, the vector inflation factor results suggested the absence of heteroscedasticity since the centered VIF were between 1.73 and 2.53 (obviously, these values are below 3.0). The Breusch-Pagan test was performed with the exclusion of the dependent variable. The Obs*R-Squared and Probability Chi-square values were 7.425 and 0.1174, respectively. Since the p-value was more than 0.05 percent, the study, therefore, accepts the null hypothesis that there is the absence of heteroscedasticity in our model.

Regression results

Model 1 was established to investigate if women's participation in governance will increase governance efficiency. The result of the regression is expressed below.

$GE = 0.709209 + 0.018753WiP$
$(6.971277) \quad (1.0871)$
$R^2 = 0.0650$

The result revealed that women in parliament have a positive value of 0.018, although the value was insignificant at 0.05 percent in the model. We are not bothered about the variable's insignificant nature since the model considered only a single variable as an independent variable. This result suggest that the current level of participation of women in parliament only has the ability of increasing governance efficiency by a mere 1 percent. The result agrees with the result obtained by Swiss, Fallon, & Burgos (2012), Comstock, N. (2015), Iwanaga, K (2008), Yoon, M Y (2011) and Goetz, A M (2007) that suggested the importance of increasing women participation in parliament. The value of the constant (0.709209) suggests that in the absence of women in parliament, governance efficiency will increase by 70 percent. This, therefore, over scores the importance of women participation in parliament.

Model 2 was developed to examine the relationship between corruption, women in parliament, and governance efficiency. The result of the regression is expressed below.

GE = 0.589700 - 0.166090 CoR + 0.226483WiP

(6.038565) (-1.396049) (2.189701)

R2 = 18.6

The results above suggest that corruption reduces governance efficiency by 16.60 percent, while women's participation in governance increases governance efficiency by a mere 22 percent. The result observes that (cetaris paribus) given the participation of women in governance and the negative influence of corruption, governance efficiency will still increase by 58.97 percent.

Model 3 was developed to examine the relevance of women's involvement in parliament as a mediating variable in the presence of corruption in Nigeria.

GE = 1.377728 - 0.134281CoR + 0.224740CoR*WiP

(-4.083188) (-0.498063) (2.089283)

R2 = 0.387191

From the model result presented above, when Women in Parliament (CoR*WiP) was introduced as a moderating variable, the result saw a reduction in the effect of corruption on governance efficiency, and increased governance efficiency. This result supports Jha & Sarangi (2014) observation that when women are adequately represented in parliaments, the economy of such nation can witness a reduction in the level, which will correspondingly result to an increase in the level of governance efficiency.

Model 4 was developed to examine again if the girl child's education can enhance governance efficiency futuristically. Women in parliament (CoR*WiP) and Girl-child Education (CoR*GCE) were introduced as mediating variables while Per capita income (log PCI) was introduced as control variable.

GE = 1.484786 - 0.098455Cor + 0.258885Cor*WiP +0.009345LogPCI + 0.336771Cor*GCE

(4.31600) (-0.368408) (2.360452) (3.081725) (3.081725)

The result from this model reveal that the moderating variables (Cor*WiP and Cor*GCE) both had a positive and significant relationship with governance efficiency, indicating that an increase in each of them will lead to a significant increase in governance efficiency. The result further confirms that Cor*WiP and Cor*GCE (as moderating variables) and PCI (as control variable) has the impact of increasing governance efficiency (G.E.). With the presence of the moderators and the control variable, corruption is observed to reduce to 0.0984 percent. The log of per capita income was also introduced as control variable. Per capita income (LogPCI) is seen to exert a positive influence on governance efficiency. This result further confirms Debski & Jetter (2015) observation that more affluent and more educated countries are strongly linked to lower corruption levels and governance efficiency, whereas population size and democracy barely matter.

CONCLUSION AND RECOMMENDATION

The paper examined if increasing the participation of women in Parliament will reduce corruption levels and increase governance. The paper adopted two moderating variables (% of women in parliament and gender parity) and one control variables (Per capita income). The study's concern was to determine if increasing women's governance participation will increase governance efficiency and reduce corruption.

The study examined the effect of increasing women's participation in governance on governance efficiency in a three-step model. The first model's result proved a positive but weak and insignificant effect of women's governance efficiency involvement. The second model introduced the percentage of women's participation in parliament and corruption on governance efficiency. The result revealed that corruption had a 15 percent effect of reducing governance efficiency. Corruption had a significant effect of reducing governance efficiency with the limited involvement and participation of women in governance.

The study further introduced the percentage of women in parliament and gender parity as moderating variables to determine if increasing the rate of women's participation in governance and reducing gender disparity in education will enhance governance efficiency. The study observed that the moderating variables (percentage of women in parliament) had a 25.88

percent effect of increasing governance efficiency and a further 9.8 percent effect of reducing corruption. The study confirms Iversen & Rosenbluth (2008), Milazzo & Goldstein (2019), Eggers, Vivyan, & Wagner (2018) opinion that increasing women's education (through a reduction in gender disparity) paves the way for increased participation of women in national legislatures, which ultimately will lead to better governance efficiency.

The study further observed that increasing women's governance participation also leads to an increase in workforce productivity as earlier noted by Barnes, Beaulieu, and Saxton (2018). It could be deduced that if we increase women's participation in governance, it positively and significantly reduces corruption and improves the nation's per capita income. This is in line with Xu (2015), who observed that increasing girl child education could reduce the fertility rate (educated women have fewer children and provide better nutrition), generate more income, and improve human capital. Dollar & Gatti (1999) summarized that hindering girls' education means passing high-return investment in human capital, with a significant effect on growth.

The study concludes that women's participation in governance should be encouraged to obtain gender equality and because it has positive externalities - enhancing governance efficiency, increasing per capita income, and reducing the negative impact of corruption on the economy. Therefore, the government should pass a mandatory legislative bill that will specify a gender-neutral quota for women participation at the parliament level and the political party level.

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Appendix 1

Correlation results

	GE	COR	GRT	WIP	GCE
GE	1	-0.427674	0.031936	-0.2550149	-0.289746
COR	-0.427674	1	-0.501678	0.595017	0.579734
GRT	0.031936	-0.501678	1	-0.073055	-0.625139
WIP	-0.255014	0.595017	-0.073055	1	0.248469
GCE	-0.289746	0.579734	-0.625139	0.248469	1

Appendix 2

HETEROSCEDASTICITY TEST

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	2.245288	Prob. F(4,14)	0.1163
Obs*R-squared	7.425297	Prob. Chi-Square(4)	0.1150
Scaled explained SS	2.162336	Prob. Chi-Square(4)	0.7059

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 10/28/20 Time: 20:06
Sample: 2001 2019
Included observations: 19

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.046398	0.033275	-1.394390	0.1849
COR	-0.007749	0.007707	-1.005474	0.3317
GRT	0.000514	0.000505	1.016847	0.3265
WIP	0.002941	0.001405	2.093342	0.0550
GCE	0.066400	0.038238	1.736503	0.1044

R-squared	0.390805	Mean dependent var	0.006125
Adjusted R-squared	0.216749	S.D. dependent var	0.006518
S.E. of regression	0.005768	Akaike info criterion	-7.251891
Sum squared resid	0.000466	Schwarz criterion	-7.003354
Log likelihood	73.89296	Hannan-Quinn criter.	-7.209828
F-statistic	2.245288	Durbin-Watson stat	2.076746
Prob(F-statistic)	0.116321		

Appendix 3 The Breusch-Pagan test

Variance Inflation Factors
Date: 10/28/20 Time: 20:09
Sample: 2001 2019
Included observations: 19

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.276609	632.2232	NA
GRT	6.37E-05	6.519436	1.885068
COR	0.014838	326.6283	2.537814
WIP	0.000493	39.20638	1.730117
GCE	0.365276	609.0371	1.943506

MODEL 1 Result

Dependent Variable: GE
Method: Least Squares
Date: 10/28/20 Time: 20:11
Sample: 2001 2019
Included observations: 19

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.079209	0.101733	10.60825	0.0000
WIP	0.018753	0.017246	1.087406	0.2920

R-squared	0.065033	Mean dependent var	0.971053
Adjusted R-squared	0.010035	S.D. dependent var	0.093624
S.E. of regression	0.093153	Akaike info criterion	-1.809840
Sum squared resid	0.147518	Schwarz criterion	-1.710425
Log likelihood	19.19348	Hannan-Quinn criter.	-1.793015
F-statistic	1.182453	Durbin-Watson stat	1.662967
Prob(F-statistic)	0.292035		

MODEL 2 RESULT

Dependent Variable: GE
Method: Least Squares
Date: 10/28/20 Time: 20:15
Sample: 2001 2019
Included observations: 19

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.589700	0.233341	6.038565	0.0000
COR	-0.166090	0.118972	-1.396049	0.1818
LCOR_WIP	0.226483	0.103431	2.189701	0.0412

R-squared	0.186240	Mean dependent var	0.971053
Adjusted R-squared	0.084520	S.D. dependent var	0.093624
S.E. of regression	0.089580	Akaike info criterion	-1.843422
Sum squared resid	0.128394	Schwarz criterion	-1.694300
Log likelihood	20.51251	Hannan-Quinn criter.	-1.818185
F-statistic	1.830905	Durbin-Watson stat	1.811879
Prob(F-statistic)	0.192297		

MODEL 3 Result

Dependent Variable: GE
Method: Least Squares
Date: 10/28/20 Time: 20:20
Sample: 2001 2019
Included observations: 19

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.377728	0.337415	4.083188	0.0010
COR	-0.134281	0.269606	-0.498063	0.6257
LCOR_WIP	0.224740	0.107568	2.089283	0.0502
LCOR_GCE	0.264411	0.186013	1.421465	0.0663

R-squared	0.387191	Mean dependent var	0.971053
Adjusted R-squared	0.284630	S.D. dependent var	0.093624
S.E. of regression	0.092464	Akaike info criterion	-1.739329
Sum squared resid	0.128244	Schwarz criterion	-1.540500
Log likelihood	20.52363	Hannan-Quinn criter.	-1.705679
F-statistic	2.151510	Durbin-Watson stat	1.836451
Prob(F-statistic)	0.060660		

MODEL 4 RESULT

Dependent Variable: GE
Method: Least Squares
Date: 10/28/20 Time: 20:22
Sample: 2001 2019
Included observations: 19

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.484786	0.344019	4.316000	0.0007
COR	-0.098455	0.267244	-0.368408	0.7181
LCOR_WIP	0.258885	0.109676	2,360452	0.0498
LCOR_GCE	0.336771	0.109280	3.081725	0.0349
GRT	0.009345	0.007742	1.207066	0.2474

R-squared	0.463808	Mean dependent var	0.971053
Adjusted R-squared	0.353468	S.D. dependent var	0.093624
S.E. of regression	0.091087	Akaike info criterion	-1.733071
Sum squared resid	0.116156	Schwarz criterion	-1.484535
Log likelihood	21.46418	Hannan-Quinn criter.	-1.691009
F-statistic	3.254197	Durbin-Watson stat	2.127262
Prob(F-statistic)	0.033635		