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GENDER INEQUALITY AND ITS IMPLICATION FOR INCLUSIVE GROWTH IN NIGERIA FROM 1980 TO 2018

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ABSTRACT

Earlier empirical studies on inequality concentrated more on its effects on economic growth with limited attention on its consequences for inclusive growth. Nigeria on average has achieved its annual target growth rate. However, stark realities of inequality, unemployment and poverty amid growth point to the need for inclusive growth. This paper examined the gender inequality implications for inclusive growth in Nigeria from 1980 to 2018 using data from the World Development Indicators (2018), National Bureau of Statistics (2018) and CBN Statistical Bulletin (2018).This study used the ARDL cointegration method in the analysis and the results showed that gender inequality in education and employment both in the short and in the long term portend grave consequences for inclusive growth in Nigeria. Government should take appropriate policy measures by ensuring equal access to education and employment for both men and women to minimize economic losses. Attaining inclusive growth in Nigeria is unlikely without gender equality. Therefore, this paper recommends that gender equality should be included in the National Development Agenda and be backed by policies that will enforce its operation both in public and private sectors at the local, state and federal government levels.

Contribution/ Originality: This study contributes to existing literature by examining the gender inequality-inclusive growth nexus. It used a new methodology (ARDL) in its analysis and derived a new equation for inclusive growth. It's one of few studies that investigated inequality-inclusive growth relationships in Nigeria. Inclusive growth is unlikely without gender equality.

1. INTRODUCTION

Recently, there has been increased global interest (including in Nigeria) in pursing gender equality due to its implication for economic growth and development and the imperativeness of making growth inclusive. Gender inequality is so critical that it is enshrined in many countries' constitutions and laws. It is so fundamental that Sustainable Development Goal No. 5 is achieving gender equality and empowerment of women and girls. A number of theoretical contributions (see (Kuznets, 1955; Sen, 1980) among others) have proven the theoretical insights and suggested that gender inequality has a devastating impact on economic growth.

However, outcomes of empirical studies on the gender inequality implications on economic growth are mixed. For instance, existing studies (Egbulonu and Eleonu, 2018; Laura et al., 2018) acknowledged the negative influence

of gender inequality on economic growth. However, other extant studies (Klasen and Lamanna, 2009; Bandiera and Natraj, 2013) suggested that gender inequality was good for economic growth. These conflicting ideas on the impact of gender inequality on economic growth make it a continuous and hotly debated concern among academics and policymakers.

Gender inequality particularly in terms of access to education and employment even though it appears to be have improved globally, remains a problem in developing countries especially in the area of female employment and education (World Economic Forum, 2018). Gender inequality, whichever gender is affected, casts a shadow on inclusive economic growth and development and incapacitates the disadvantaged individuals and excludes them from development gains (Klasen, 2017). It has direct and indirect impacts on individual's health, losses in aggregate productivity, decline in per capita income and per capita consumption (important proxies for inclusive growth), wasteful maximisation of resources, below standard operation in cooperate governance in business and governments as well as losses or decline in present and potential human resource capacity (a key driver of growth and development). In other words, once gender equality is entrenched in the society, opportunity for economic growth, a necessary condition for well-being and improvement in standard of living is improved. Therefore, any action taken against gender inequality is important because gender equality has both macro and micro outcomes that are positive for those discriminated against and the economy as a whole such as facilitating inclusive growth by reducing the levels of poverty, unemployment and inequality (IMF, 2013; IMF, 2018).

Inclusive growth is strong and sustainable growth that creates opportunities in which the benefit of growth is shared by all (Ali and Zhuang, 2007). It is a growth strategy in which everyone is given the opportunity to contribute to the growth process and share in the benefits. Inclusive growth ensures equity and fairness and cuts across every stratum of the population. The poor and the vulnerable are hurt the most by economic and other fluctuations, hence growth that leads to wide disparity is unacceptable. In fact, growth that creates continuous inequality will endanger peace, result in insecurity, coerce the poor and the disadvantaged into immoral and criminal activities and create further unhealthy divisions in the society. It could be deduced that most of the political and civil unrest across the globe stems from the exclusion from growth benefits (Vahabi, 2009). It is a growth strategy that addresses inequality, unemployment and poverty concerns because it entails shared benefits of growth. Therefore a growth strategy (inclusive growth) that is all inclusive for the population should be embarked upon.

However why do we have poverty, unemployment and inequality in the midst of economic growth? The majority of the world population in developing countries (Nigeria included) are living below the poverty line with an escalating. unemployment rate and a widening gap between the poor and the rich despite the fact that most developing countries over the past few decades have achieved their economic growth targets.

Currently, Nigeria is rated as the poorest country in the world with 50% of the 180million population are living below poverty line (Brooking Poverty Report, 2018) and has an unemployment rate of 23 % (NBS, 2018). The growth was inclusive for a section of the population (the mostly rich men) to the exclusion of the poor especially young people and women. Available statistics show that women are the worst affected which is an outcome believed to be a product of disparity in term of access to employment. The female unemployment rate was 26.6% compared to the 20% rate for men (NBS, 2018). The standards of living for the population remained for the most part unchanged and worse off especially for women. There was sustained growth in the Gross National Income but poverty, unemployment, inequality and a poor standard of living are prevalent

Nigeria experienced exclusive growth over the years. A majority of the citizens' had their potential unrealised as they could not participate equally or at all in the growth process. Nigeria is ranked 122nd out of 144 in closing the gender gap (WB, 2018). Given the contradiction between the economic growth and the stark realities mentioned above, it becomes abundantly clear that economic growth is not a sufficient condition for improving well-being though a necessary condition. Overcoming the non-inclusiveness of growth could help to favourably improve

the stark realities and unfavourable statistics in developing countries including Nigeria. This could be unlikely without equality between men and women (Laura *et al.*, 2018).

Despite the implications gender inequality could have on inclusive growth and the quest to address fundamental development concerns of poverty, inequality and unemployment, most empirical studies (Risikat, 2012; Ikechukwu *et al.*, 2014; Egbulonu and Eleonu, 2018) on inequality in Nigeria focused on the economic growth – gender inequality nexus but failed to grasp the issues of poverty, inequality and unemployment amid economic growth by ignoring the gender inequality – inclusive growth nexus thus, making these studies of little policy inference on the issue of inclusive growth. This is an empirical lacuna yet to be given adequate attention in the economic gender inequality literature.

To cover this gap and contribute to the discussion on gender inequality-inclusive growth nexus, this paper examined the gender inequality implications in education and employment on growth inclusiveness in Nigeria, and in particular, the gap in secondary enrolment (proxy for inequality in education) and the gap in labour force participation (proxy by gap in employment). This study used the ARDL method of analysis to determine both the short term and long term relationships between the dependent and independent variables not the ordinary least square method used by most existing studies, and also empirically derived an equation for inclusive growth. Given the gains of inclusive growth, it is therefore imperative and rationally justifiable to stimulate gender equality in education and employment by ensuring everyone's participation in the growth process to make growth truly inclusive in Nigeria.

2. LITERATURE REVIEW

This section reviews the conceptual, theoretical and empirical literature on gender inequality and its implications for inclusive growth.

2.1. Conceptual Review Literature

The concept of gender inequality is crucial in economic growth analysis. An understanding of the concept is key in appreciating the impact of gender inequality on growth and by implication, inclusive growth.

2.1.1. Gender

According to the Women Information Centre (2005) gender can be defined as a set of features, roles and behaviours that distinguishes women from men socially, economically and culturally. These features, characters, behaviour patterns and the way which people exact control over another group are not static but instead, vary over time in different socio- cultural groups. According to the United Nations Population Fund (2009) gender was conceptualised to mean economic trait, social traits as well as cultural characteristics and opportunities linked with being a man or woman. Gender traits and physiognomies, as affirmed, cover the roles that men and women play and what is expected of them.

Cassell (2002) defined gender as having a sense of male or female identity or having the recognized traits of a male or female. While those characteristics and behaviours that are associated with a male are called masculine, those associated with female are referred to as feminine. Olujobi (2001) refers to gender as the division of the world's humanity into two distinct categories based on their sex or the biological features that differentiate a male from a female.

2.1.2. Gender Equality

In their analysis of gender inequality, the UNFPA (2009) defined gender equality in the following way: equal opportunity between men and women abounds when men and women could share power and influence equitably, when all have equal privileges and access to finance independent of another through work or established businesses,

could access quality education and the chance to develop and realise their aspirations, gifts and interests, have collective responsibility for children upbringing and the home and be completely at liberty from being forced, and free from any intimidation and violence associated with gender both in the work place and at home.

2.1.3. Gender Inequality

World Bank (2002) defined inequality as lack of equality in amount, size, value as well as in rank. It comprises of an uneven distribution of resources with no regularity of uniformity. In other words, inequality therefore exists when there is an uneven distribution of resources, no access to productive resources, a lack of bargaining powers, little or no control over proper earned income as well as gender discrimination in the labour market and social non-inclusiveness between male and female (Cagatay, 1998; Ravari, 1998). It also refers to a situation in which women do not have the same rights as men do in human, cultural, social and economic development. It depicts a situation in which women do not have voice in civil and political spheres (Evans, 2001). Educationally, gender inequality is a situation when one gender is disadvantaged in terms of access to education. Similarly, IMF (2018) defined gender inequality as multifaceted and viewed in terms of lack of access to opportunities and development outcomes.

2.1.4. Inclusive Growth

As explained earlier , inclusive growth is a strong and sustainable growth that creates opportunities in which the benefits of growth are shared by all (Ali and Zhuang, 2007). It is a growth strategy in which the people participate and share in the benefits that accrue from their participation in the economic growth process. Inclusive growth is centered on productive employment for the population as means of income redistribution rather than a direct income distribution plan so that the income of the excluded group is increased.

2.2. Theoretical Review

Over the years, there has been a surge of interest, theoretically and empirically, on economic growth determinants, however growth models that consider gender inequality and its impact on economic growth are limited and include:

2.2.1. The Kuznet Hypothesis

Kuznets (1955) revealed that inequality has a positive impact on growth at the initial stage of development. According to this hypothesis, at the early stages of economic growth, relative income inequality increases, stabilises for a time and then declines in the later stages. This is known as the inverted U-shaped hypothesis of income distribution. The hypothesis opined that the marginal propensity to save is high for the rich compared to the poor. The rich will accumulate capital, invest and this will cause the economy to grow at the early stage and expect inequality to decline as development sets in and the benefits of growth begin to trickle down to the poor.

Kuznets gives two reasons for the decrease in inequality of income distribution when the country reaches high income levels in the later stages of development. First, the per capita income of the highest income groups falls because their share of income from property decreases. Second, the per capita income of the lowest income groups rises when the government takes legislative decisions with respect to education and health services, inheritance and income taxation, social security, full employment and economic relief either to whole groups or individuals.

Kuznets' inverted U-shaped hypothesis of income distribution has been popular among developed nations but may not have been applied in the area of gender inequality. This study, however, believes that there is the probability that gender gaps may follow the same pattern over time. It is expected that as countries develop, the growth in industries may either be dominated by men or women, especially in the case of industries that use heavy machines and textile industries which are industries usually dominated by men and women respectively. The growth of these industries should imply a rise in pay thereby narrowing inequality. As development spreads further

and if government takes legislative decision with respect to education, health facilities and full employment, there will be increased micro-diversity and less gender discrimination in the workplace which will then lead to income gaps closing further thereby making growth inclusive.

2.2.2. Sen's Exchange Entitlement Theory

Another theory which could be of relevance in the area of gender analysis is Sen's exchange entitlement theory developed in 1980. The theory identified four types of entitlement which can be traced to one's economic, political and social features. These entitlements are: productive-based entitlements, own-labour entitlements, trade-based entitlements, and inheritance and transfer entitlement. These entitlements result in differences in capabilities.

According to this theory, development is freedom dependent, hence, shifts in attention towards those lacking in human capabilities from people whose incomes are low (Streeten, 2000) with high levels of gender disparity prohibiting the freedom of women and capabilities will aid the reduction in gender gaps arising from varying human capabilities. It may not be absurd but logical to consider gender inequality from this viewpoint considering that varying capabilities could a source of inequality. Hence, by providing education and employment, the lacking capabilities will be addressed thereby narrowing the inequality gaps and making growth inclusive.

2.3. Empirical Review

The importance of gender equality and its implication for inclusive growth cannot be over emphasized. A growing body of empirical literature supports this all-important driver of inclusive growth (Rodgers and Zveglich, 2012). Most studies have stated gender equality as having positive outcomes both at the macro (Dollar and Gatti, 1999; Klasen, 2002; Klasen and Lamanna, 2003; Odozi, 2012) and micro (Bourguignon *et al.*, 2001) levels. Gender gaps or inequalities have damaging effects on inclusive growth whereas gender equality has positive outcomes for inclusive growth. Unfortunately, this gap between females and males in terms of outcomes and opportunities are present in different dimensions. They are present in the area of education, in terms of earnings, in formal employment access, occupation, access to top managerial positions, access to inputs fundamental to production, political participation and representation as well as the bargaining power inside households (Yoko, 2009). This gap is often more pronounced in developing countries (Jayachandran, 2014).

Anochie *et al.* (2015) carried out a study of the effect of gender inequality and economic growth in Nigeria and concluded that gender gaps retard economic growth by holding back individual growth, the economic development of countries and the transformation of the societies thereby disadvantaging both males and females. In other words, the individuals and the society are worse off where discrimination thrives and where people especially women are not provided the platform to equally contribute to growth and development thereby preventing growth being inclusive.

Similarly, Egbulonu and Eleonu (2018) studied the gender inequality implications for economic growth in Nigeria covering 1990-2016 to formulate appropriate policy to aid female contribution to economic growth. The evidence suggested that gender inequality has the potential to cripple or slow economic performance. The study, therefore, advocated the need to narrow the gap between men and women to boost economic growth.

Odozi (2012) x-rayed the socioeconomic impacts of gender inequality in Nigeria and found that gender inequality retards economic growth. In another related study, Osuizigbo (2017), in unravelling the effects of gender inequality on economic growth in Nigeria, revealed that gender inequality had a retarding effect on economic growth and worsened poverty in Nigeria. The study revealed that poverty in Nigeria affects more women due to large exclusion of women from educational and economic opportunities.

Yoko (2009) while estimating the gap in schooling discovered that on the average, only 5% of the women had any secondary education in the poorest quartile measurement in 1990 which is one-half of the level for men. At upper richest quartile, adult men with a secondary level of education were 88% compared with 51% for adult women

although the current trends show that appreciable improvement has been achieved in the area of enrolment in some developing countries while others are still lagging. Conversely, gaps in employment according to Tzannatos (1999) are closing faster in developing countries than industrialized nations, however gender inequality is still of a higher magnitude most especially in the Middle East, South Asia and North Africa (Klasen and Lamanna, 2009).

Consequently, in a bid to ascertain whether gender inequality has implications for economic growth or not, Bertay et al. (2018) in a macro study of industry level data analysed the impact of gender inequality on economic growth using the World Bank's recently released data in the composite gender inequality index (GII). The outcome of the study was fascinating as it was found that there is a negative relationship between the gender gap in education and employment and economic growth signifying that gender inequality is endemic as it inhibits the vulnerable section of the population in particular from contributing substantially to growth and development. In other words, the gender gap could mean a loss of potential output or productivity which implied declines in per capita income and per capita consumption. This will equally impact saving and investment negatively and by extension, a reduction in capital formation.

Additionally, Laura et al. (2018) in another macro study involving 127 low and high income countries analysed the effect of gender factors on economic growth. The results also proved that achieving gender equality would put a country on the path of development as it would boost economic growth and development through access to education, finance and economic opportunities. The study further revealed that the improvement in female participation in the political process enhances economic growth and triggers development.

These macro studies were based on theories that explain the different channels through which gender gaps affect economic growth and by extension, inclusive growth. One of the propositions or arguments put forward to explain how gender inequality in education produces economic inefficiency is that, the lower the number or level of educational attainment or achievement of women, the lower the supply of skilled manpower. This implies that, the number of people with the right skills and knowledge necessary for productive activities decline when a limited number of women have access to education.

Another school of thought explained that the female level of education results in externalities such as lower fertility levels and improved human capital outcomes among children. The relationship between growth and gender inequality in employment have similar mediums of transmission, though here the matter is more complex because of backward causality. However, it is expected that the higher the levels of female employment, the more there is an increase in the supply of skilled people in the labour market, as well as a growth in female intra-household bargaining power that produces an increasein children's human capital. In other words, female employment has multiplier effects such as increased income, increased education and health outcomes, increased aggregate demand and per capita consumption (Hakura et al., 2016).

Hakura et al. (2016), in a comparative study of sub-Sharan Africa countries, investigated the implication of inequality and the gender gap on economic growth. Using dynamic panel regression, it was revealed that income and gender inequality contribute negatively to economic growth in sub-Sahara Africa. The study concluded, based on the findings, that per capita income could be increased by 0.9% in sub-Saharan Africa if inequality was reduced to the degree witnessed among Asian countries.

Yana and Joseph (2012) examined the implication of gender inequality for inclusive growth in Asia's Labour market and the Pacific by focusing principally on the structural drivers of women in labour participation. Findings from the study revealed economic reasons as the drivers behind female participation in labour and that the higher the level of female participation, the higher the level of economic growth.

Empirical findings on the impact of gender inequality on economic growth as explicated by the above studies concluded that gender equality impacts economic growth positively. However, most of the papers reviewed for this study (such as Egbulonu and Eleonu (2018); Anochie et al. (2015); Odozi (2012); Rodgers and Zveglich (2012)) focused mainly on the implications of gender inequality on economic growth but not on the implications it has for

inclusive growth. Thus, this paper takes it further by examining the gender inequality implications for inclusive growth in Nigeria.

This paper also increases the borders of knowledge by modelling inclusive growth unlike Yoko (2009) (which gave a descriptive analysis of inclusive growth) thereby disintegrating gender equality into gender equality in education and employment as key variables that determine inclusive growth.

It is clear from the review that gender inequality is a great obstacle to inclusive growth as shown by empirical studies. It casts a shadow on growth prospects and hence impedes inclusive growth. It represents losses in aggregate output, national income, losses in saving, and losses in potential investment and per capita consumption. Any attempt or policies targeted at addressing gender gaps or inequality is a laudable step in ensuring inclusive growth in Nigeria.

3. STYLIZED FACTS

Since 1980, the level of inequality in Nigeria has been disheartening. In fact, Nigeria is ranked among the countries with highest level of inequality by the United Nation despite its abundance resources and achieving average annual positive economic growth. The incidence of poverty in the country can be traced to unequal distribution of income, lopsided access to education, employment, and infrastructures as well as training. This sustained high level of inequality results in limited access to economic resources and social opportunities. The growing inequality breeds a dual society of poor rural verses rich urban dichotomy in the midst of growth.
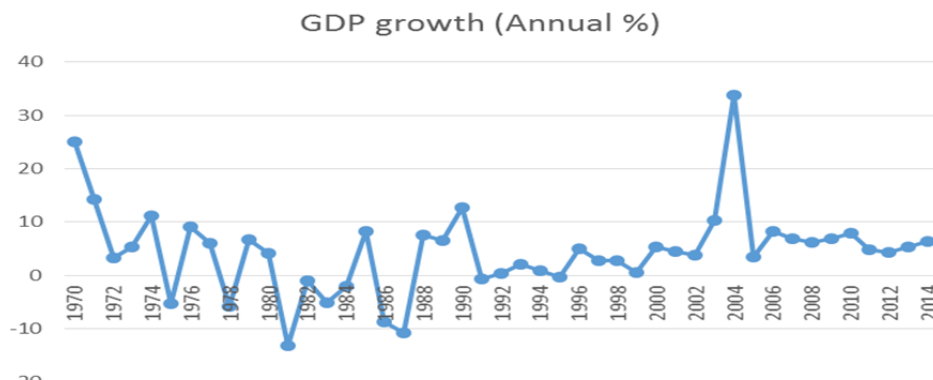

Figure-1. Nigeria's GDP growth (Annual %) from 1970-2014.
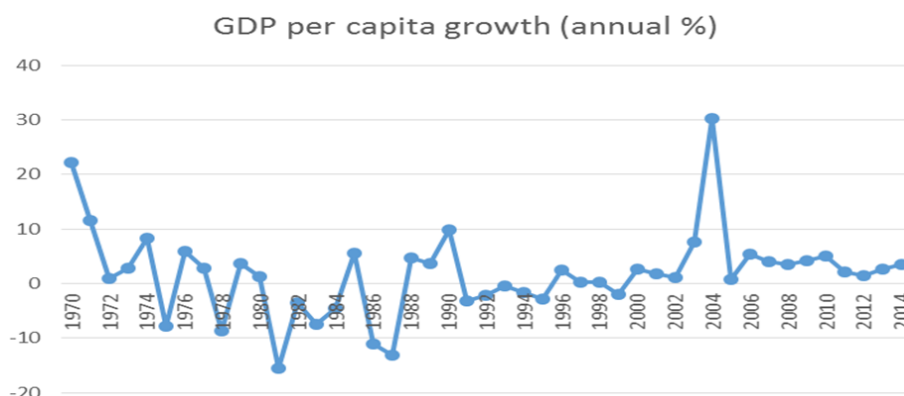**Source:** Computed from world development indicators, 2015.

Figure-2. Nigeria's GDP growth (Annual %) from 1970-2014.
Source: Computed from world development indicators (2015).

Though the country has experienced growth in GDP and GDP per capita especially from the late '80s till 2014 as shown in Figure 1 and Figure 2 there is high level of inequality due to uneven distribution of resources and non-inclusiveness of growth.

Indeed, gaps between females and males in terms of outcomes and prospects are present in different dimensions. They are present in the area of education, in terms of earnings, in formal employment access, occupation, access to top managerial positions, access to inputs fundamental to production, political participation and representation and the bargaining power inside households.
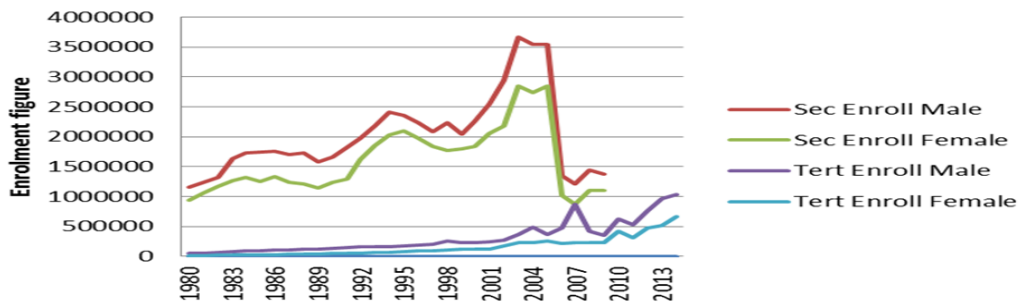

Figure-3. Male vs Female Enrolment in Nigeria from 1980-2014.
Source: Computed from World Bank Development Indicators (2015).

Figure 3 above shows the levels of enrolment between males and females from 1980 to 2014. From the above figure, gender gaps still exist as women still lag behind in levels of enrolment though remarkable progress is being made. The gaps, as earlier stated, impact on the level of female labour force participation in Nigeria as expounded in Figure 4 below.
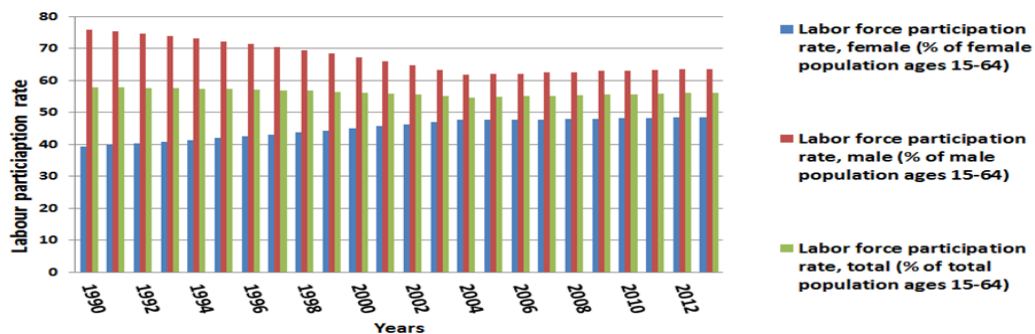

Figure-4. Male vs Female Labour Force Participation Rate (Ages 15-64) 1990-2013.
Source: Computed from World Bank Development Indicators (2015).

Figure 4 above analyses the labour force participation rate for males and females between 1990 and 2013. The trend still shows that women in Nigeria are still lagging behind men in terms of participation in the labour force in Nigeria, though women are closing the gap as there has been a consistent increase in participation. Further analysis of women's labour force participation between ages 15 to 25 in the population in Nigeria gave similar outcomes as females still lag behind men. This is illustrated in Figure 5 below.
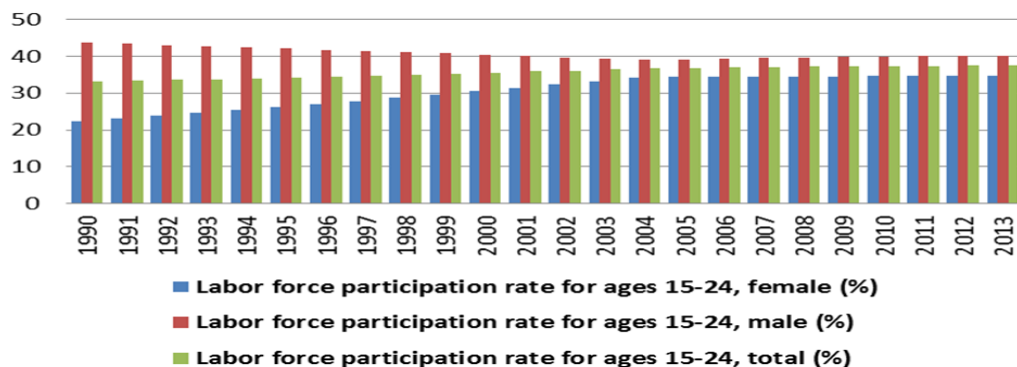

Figure 5. Male vs Female Labour Force Participation Rate (Ages 15-64) 1990-2013.
Source: Computed from World Bank Development Indicators (2015).

In terms of the proportion of seats held by women in parliaments, the outlook has not been so fantastic for women in Nigeria as revealed by the 2017 data in Figure 6 below for selected African countries.
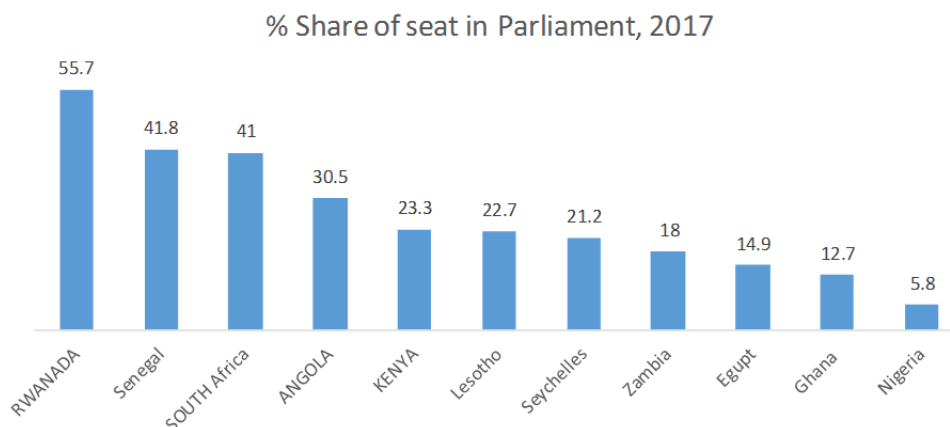

Figure-6. Percentage of Seats Held by Women in Parliament. Selected African countries, 2017.
Source: Authors Computation from WDI (2018).

In fact, Nigeria has the lowest representation of women in parliament across the selected African countries. On the average it is 5% of the seats between 2000 and 2014. While women occupied 3.4% of the parliamentary seats in 2000, the situation in 2014 was better as they occupied 6.7%. By 2017, the inequality was worse as there was a decline in the number of seats occupied by women from 6.7% to 5.8%. Compared with other selected African countries, Nigeria has the lowest representation of women in parliament. The men have marginalized the women in the proportion of seats held by women in national parliaments. For growth to be inclusive therefore there is need to create gender equality in Nigeria. In fact, there can be no inclusive growth as long as the level of gender inequality continues to deepen. The Government in partnership with the private sector must take deliberate steps in creating and enforcing policies and actions on gender equality if the economic potentials of the women are to be realised.

4. THEORETICAL FRAMEWORK AND METHODOLOGY

Scholars have advanced different theories of economic growth however, only a few stressed the gender equality implications on economic growth. Some of these theories, as earlier discussed, stressed that gender equality has positive implications for economic growth and that the gender gap closes when government takes initiative towards education and employment including the Kuznets income distribution hypothesis (Kuznets, 1955) and Sen's entitlement theory (Sen, 1980) among others. This paper therefore takes a cue from Kuznets income distribution hypothesis (Kuznets, 1955) which shows that the per capita income of the lowest income groups rises when the government takes legislative decisions with respect to education and full employment. Therefore, government policy interventions aimed at closing gender gap or inequality is capable of engendering inclusive growth by improving the level of employment and increase per capita income.

4.1. Model Specification

In attempting to specify the model of inclusive growth, this paper adopted Anand *et al.* (2013)'s model in which they presented a unified measure of inclusive growth (that included a well-educated workforce in line with position of Kuznets (1955) above) where inclusive growth was defined as (i) income growth; and (ii) income distribution designated by $\bar{g}*$ and Ali and Son (2007) where $\bar{g}*$ was used to propose an income equity index (IEI). Following Ali and Son (2007) and Anyanwu (1997) inclusive growth was defined as the improvement in per capita income (a measure of income distribution) due to gender equality in education and employment in this study. The greater the $\bar{g}*$, the more the level of inclusiveness. Therefore, for growth to be inclusive, based on this paper, there was a need for gender equality in education as well as equal participation in the labour force. As mentioned earlier, the more

educated a woman, the more employment opportunities they can access and the greater the productivity and income growth (Anyanwu *et al.*, 1997).

Following the proposed Income Equity Index (IEI) by Ali and Son (2007) ḡ was the average income of the population while ḡ* was inclusive growth. The Index in its simple mathematical form was given as:

$$\omega = \bar{g}^* / \bar{g} \qquad (1)$$

For a completely equitable society:

$$\omega = \bar{g}^* / \bar{g} = 1 \qquad (2)$$

Thus, the higher value of **ω,** (closer to 1) represents higher income equality. To obtain a higher value of **ω,** requires gender equality in education and employment (female participation in labour force).

By rearranging Equation 1 and 2,

$$\bar{g}^* = \omega * \bar{g} \qquad (3)$$

Achieving inclusive growth requires increasing the value of **ḡ*** which could be achieved by:

(i)   Increasing average income through growth;

(ii)   Increasing the equity index of income, ω through increasing equity; or

(iii)   The interaction of (I) and (II).

Thus, by stimulating gender equality in education and female labour force participation, it was expected that productivity would increase, income would increase, aggregate national income would also grow and equity would be achieved hence making growth inclusive.

If we differentiated Equation 3 above:

$$d\bar{g}^* = \omega * d\bar{g} + d\omega + \bar{g} \qquad (4)$$

Where **dḡ***= change in the degree of inclusiveness. Growth is more inclusive if **dḡ*>0.** This allowed for the decomposition of growth into inclusive growth and equity. On the right hand side of Equation 4 the first term is the contribution of increase in average income (keeping income distribution constant) while the second term is the contribution of changes in the income distribution (keeping the average income constant).

Inclusive growth depends on the sign and the magnitude of the two terms which according to this paper is a function of female education and participation in labour force. If the two terms are positive (dḡ>0, dω>0), growth would without doubt said to be inclusive and when they are negative (*d*ḡ<0, dω<0), growth would be non-inclusive. However, there could be a trade-off. If **ḡ** is positive and **ω** is negative, growth is achieved at the expense of redistribution and it ω is positive and ḡ is negative, then redistribution is achieved at the expense of growth.

Our model identified a long term relationship between inclusive growth **ḡ*,** the vector of variables which conventionally impacts on inclusive growth (like capital formation, investment, saving and well educated workforce) defined by R, the vector of gender variables in focus i.e., female secondary enrolment and female labour force participation represented by X, and Z which are the control variables and ε is the error term.
Thus:

$$\bar{g}^* = \alpha_0 + \beta_1 R + \beta_2 X + \beta_3 Z + \varepsilon \qquad (5)$$

Where;

ḡ*= Inclusive growth which is measure by increase in per capita income per capita GDP), **R**=vector of variables which conventionally impact on inclusive growth (like initial per capita income, Foreign Direct Investment, Trade openness, Capital formation,), **x=** vector of gender variables in focus such as; gap in secondary enrolment and gap in employment proxy by gaps in labour force participation.

Secondary enrolment gaps were used to measure inequality gap in education in this study because secondary education is the level of education used by the federal Government for the minimum wage rate in Nigeria whereas employment gaps (female labour force participation gaps) show the gender gaps in employment. Therefore, measures taken to close these gaps among other variables could guarantee equity and facilitate inclusive growth for Nigeria. **Z**= Control variables and ε is the error term.

By capturing the above variables, our inclusive growth model used the ARDL model specified by Malangeni and Phiri (2017) and the inclusive growth model by Anyanwu (1997) as;

$$\bar{g}^* = \alpha_0 + \beta_1 GAPSE + \beta_2 GAPTER + \beta_3 GAPEMP + \beta_4 FEXP + \beta_5 MEXP + \beta_6 CAP + \beta_7 FDI + \beta_8 TOP + \varepsilon \qquad (6)$$

Where $\bar{g}^*$= Inclusive growth defined in terms of per capita income growth (as measure of income distribution following, Anyanwu (1997) GAPSE= Gap in secondary enrolment, GAPTER=Gap in tertiary enrolment, GAPEMP= Gap in employment, FEXP= Female life expectancy, MEXP=Male life expectancy, Cap= Capital formation, FDI= Foreign direct investment, TOP=Trade openness.

5. PRESENTATION AND ANALYSIS OF RESULTS

This study used secondary data from 1980 to 2014. Since the study involved a time series secondary data, the unit root test was conducted to determine whether or not the series were stationary.

5.1. Unit Root Test

It has been established that time series macroeconomic variables are non-stationary hence it would have been inappropriate to use them in an econometric analysis without determining their stationary status. We conducted unit root tests to examine the stationary status of a time series used in this study. A series is said to be stationary if its mean and variance are constant over time and the value of the covariance between the two time periods depends only on the distance or gap or lag between the two time periods and not the actual time at which the covariance is computed. Where a time series is not stationary in this sense, it is said to contain an unit root. It was essential for a time series to be stationary for it to be of practical value because if a time series was non-stationary, we could only study its behaviour for the time period under consideration. Each set of time series data would therefore be for a particular period and it would be impossible to generalize it to other time periods. For the purpose of forecasting, such (non −stationary) time series may be of little practical value. In resolving the non- stationary of a time series, differencing or de-trending can help.

The tests that can be used for the unit root of a variable are the Dickey Fuller test, the Augmented Dickey-Fuller test, and the Phillips-Perron unit root test. The unit root result is presented below using the Augmented Dickey-Fuller test to verify whether or not to accept the Null hypothesis of no unit root.

Table-1. Unit Root Result of stationarity of both the dependent and independent variables

Variables	Augmented Dickey-Fuller Test	Critical Value at 5%	Critical Value at 10%	Stationary
$\bar{g}^*$	−5.86061	−2.95711	−2.617434	I(1)
GSE	−5.850701	−2.954021	−2.615817	I(1)
GEMP	−10.63874	−2.976263	−2.62742	I(1)
GTER	−7.741488	−2.957110	2.617434	I(1)
FEXP	−2.985602	−2.963972	−2.621007	I(1)
MEXP	2.294507	−2.963972	−2.621007	I(1)
TOP	−8.153685	−2.954021	−2.615817	I(1)
FDI	−6.619324	−2.954021	−2.615817	I(1)
CAP	−7.61766	−2.954021	−2.615817	I(1)

Source: Author's Computation, underlying data from WDI (2018); NBS (2018) and CBN (2018). The above test was conducted at 5% level of significance.

Table 1 above presents the unit root results of the inclusive growth measure and all the independent variables as previous defined. The result of the unit root test indicated that all the variables attained stationary status at first difference and since the critical values at 5% were less than Augmented Dickey-Fuller Test value, we rejected the hypothesis that the time series has a unit root. That the variables were stationary at first difference means that the results were non-spurious and could be used to predict the future.

5.2. Co-integration Results

From the unit root results, given that all the variables were integrated in the same order, integration tests were carried out to determine whether there was the possibility of cointegration among the variables and to determine if there was a long term relationship. The results are presented in Table 2 and Table 3 below.

Table-2. Unrestricted Cointegration Rank Test (Trace).

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.99786	630.3111	190.8764	0.0001
At most 1 *	0.983452	427.4585	153.6341	0.0000
At most *	0.912216	292.1086	120.3673	0.0000
At most 3	0.029012	3.128237	3.110280	0.3256
At most 4	0.059924	2.55403	1.81970	0.2134
At most 5	0.046624	3.21509	2.49359	0.3125
At most 6	0.05852	2.74591	3.06695	0.1895
At most 7	0.03304	1.37419	2.42878	0.2785
At most 8	0.048707	1.647778	2.705545	0.1993

Source: Author's Computation, underlying data from WDI (2018); NBS (2018) and CBN (2018). The above test was conducted at 5% level of significance.

Table-3. Unrestricted Cointegration Rank Test (Maximum Eigenvalue).

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.99786	630.3111	55.24026	0
At most 1 *	0.983452	427.4585	49.28747	0
At most	0.012216	292.1086	3.29404	0.1263
At most 3	0.029012	3.128237	3.27779	0.1422
At most 4	0.089924	2.55403	3.23922	0.1362
At most 5	0.046624	3.21509	2.12408	0.1231
At most 6	0.067852	2.74591	1.89282	0.1242
At most 7	0.03304	1.37419	2.29652	0.1892
At most 8	0.048707	1.647778	2.705545	0.1993

Source: Author's Computation, underlying data from WDI (2018); NBS (2018) and CBN (2018). The above test was conducted at 5% level of significance.

The above results indicated that we had three cointegrating equations from the Trace test in Table 2 and two cointegrating equations from the unrestricted Cointegration Rank test in Table 3 at the 5% level of significance respectively indicating that there are long term relationships between inclusive growth and the independent variables. To further ascertain whether or not the relationship exists among the variables we used the ARDL Bond test statistics and the result is presented below.

Table-4. ARDL Bond Test. Included observation: 37. Null Hypothesis. No Long term relationships exists.

Test Statistics	Value	K
F-Statistics	5.374637	9
Critical Value Bonds		
Significance	10 Bond	I1 Bond
10%	1.88	2.99
5%	2.14	3.3
2.55%	2.37	3.6
1%	2.65	3.97

Source: Author's Computation, underlying data from WDI (2018); NBS (2018) and CBN (2018).

The results of the ARDL bond test indicated that the absolute value of F-statistics was greater than 10 and I1 bond critical values at the 10%, 5%, 2.5% and 1% levels of significance respectively. This implies that we could reject the null hypothesis of no long term relationships. To estimate the long term relationship among the variables, this study used the ARDL method since all the variables were stationary at first difference.

The ARDL cointegrating method of analysis was preferred in this study because of its advantages. First, it does not impose restrictions in its assumption that all variables must be cointegrated in the same order unlike other cointegration methods. Second, it can be used irrespective of the sample size and therefore is not sensitive to sample size. It proves an unbiased estimate of long term relationships and valid t-statistics in the presence of the endogeneity of some variables.

To examine the impact of gender gaps in education and employment and other intervening variables on inclusive growth, we estimated Equation 4 by using the ARDL method based on the Akaike info criterion (AIC). The outcomes of the dynamic ARDL (2, 1, 1, 2, 2, 2, 2, 2, 2, 2) are presented in Table 5.

Table-5. ARDL (2, 1, 1, 2, 2, 2, 2, 2, 2, 2) Based on Akaike info criterion (AIC).

Dependent Variable: Per Capita Income (PCI)

Independent Variables	Coefficients	T-Statistics	[Prob]
GPCI(-1)	0.367382	2.575757	0.0095
LOGGSE)	–0.095850	–2.819760	0.0075
LOGGEMP)	–0.115853	–2.067097	0.0137
LOGFLEXP)	0.149912	2.454056	0.0097
LOGFLEXP(-1)	0.126041	3.481587	0,0000
LOGMLEXP)	0.104580	1.969020	0.0205
LOGMLEXP(-1)	0.076375	1.828271	0.0431
LOGFDI)	0.174850	2.313894	0.7608
LOGFDI(-1)	0.135467	2.540858	0.0077
LOGCAP)	0.164949	-3.840956	0.0022
LOGCAP(-1)	0.140610	2.629071	0.0117
LOGTER)	–0.165801	2.718235	0.0019
LOGTER(-1)	–0.139055	2.243025	0.0153
LOGTOP)	0.111469	2.002167	0.0363
LOGTOP(-1)	0.084821	1.899184	0.04478
CointEq(-1)	–0.542225	–1.957932	0.0419
Constant	2..4460	2.847401	0. 0041

Source: Author's Computation, underlying data from WDI (2018); NBS (2018) and CBN (2018).

Table-6. Long term Coefficients Using ARDL (2, 1, 1, 2, 2, 2, 2, 2, 2, 2) Based on Akaike info criterion.

(AIC) Dependent Variable: Per Capita Income (PCI)

Independent Variables	Coefficients	T-Statistics	[Prob]
LOGGSE	–0.16861	-2.57942	0.0077
LOGGEMP	–0.19439	-2.10507	0.0008
LOGFLEXP	0.09790	2.00271	0.0142
LOGMLEXP	0.10113	2.01116	0.0104
LOGFDI	0.18790	2.89093	0.0070
LOGCAP	0.14526	2.74036	0.0079
LOGTER	–0.17610	- 1.22306	0.0024
LOGTOP	0.078585	2.49774	0.2384
C	7.356095	4.92183	0.0000

R² =0.96, Adjusted R²=86, F-Statistics=9.2118. Prob(F-statistics=0.0008), AIC(-5.083739). Durbin-Watson Stat= 2.601471

Source: Author's Computation, underlying data from WDI (2018); NBS (2018) and CBN (2018).

The results in Table 5 show the dynamic relationships between inclusive growth captured by per capita income, the main independent variables (gaps in secondary enrolment and gaps in employment) and other conditioning variables. The results revealed that gaps in secondary correlated negatively with growth inclusiveness. This implied that achieving equality by eliminating the gap will reduce gender gaps in education and create an increase in per capita income or an increase in income distribution by 9% and 16% respectively both in the short term and long term respectively. Put differently, narrowing the gender gap in secondary enrolment will stimulate income growth and income distribution both in the short and in the long term. The results validate the findings of prior studies (Hakura *et al.*, 2016; Egbulonu and Eleonu, 2018; Laura *et al.*, 2018) that acknowledged the devastating effect of

gender inequality on economic growth, and invalidates empirical investigations (Klasen and Lamanna, 2009; Bandiera and Natraj, 2013) which supported the inequality - growth nexus.

The gap in the labour force participation (gaps in employment) means a loss to the economy but if the employment rate is doubled, it will lead to inclusive growth by 11% and 19% in the short term and in the long term. However, the quality of influence is determined by the context of the country as well as supportive policies (Basnett and Sen, 2013). In fact, an increase in education and employment have multiplier effects such as increased income, increased education and health outcomes, increased aggregate demand and a per capita consumption decline in poverty (Hartwig *et al.*, 2011).

Increase in the level of education and employment has implications for increased incomes and better health outcome such as life expectancy. As revealed by the outcomes, male and female life expectancy as well as gaps in tertiary education, as control variables, have implications for inclusive growth. Both male and female life expectancy and tertiary gap in education were statistically significant at the 5% level of significance both in the short term and in the long term. As expected, the gap in tertiary education still has a negative impact on growth which supports the conclusion by Egbulonu and Eleonu (2018) that gender inequality in education retards growth and makes it non-inclusive. Likewise, an increase in male and female life expectancy exacts a positive influence on growth and income distribution in line with Acemoglu and Johnson (2007) and Laura *et al.* (2018).

The impact of other conditioning variables that conventionally influence growth and distribution (capital formation, foreign direct investment and trade openness) were statistically significant (except for trade openness). Capital formation has a positive impact on growth both in the short term and long term. This aligns with the findings of Kanu and Ozurumba (2014) that reported that capital formation positively impacts economic growth in Nigeria. Foreign direct investment equally influences growth and by extension inclusive growth. This justifies Alfaro *et al.* (2006) who concluded that FDI impacts growth positively. In Nigeria, early development was due to foreign direct investment. Trade openness as defined by the export plus import share of GDP though was not statistically significant at the 5% level but still has the potential to make growth inclusive. This is in agreement with Olatunji and Shahid (2015) when they revealed that the transfer of technology to less developed countries from developed nations lead to an increase in the productivity factor and that economic growth was facilitated by trade openness.

R-squared which measured the variation in the dependent variables due to changes in independent variables remained high at 96% and even when adjusted, the value still remained high at 86%. F-Statistics value (*F-Statistics=9.2118*) which measured the joint impact of variables on inclusive growth remained significant at the 5% level as shown by the *Prob(F-statistics=0.0008)*. More importantly, the Durbin-Watson statistic value of *2.601471* indicated that there was no autocorrelation. From these results, one could deduce that income growth and income distribution could be achieved by ensuring gender equality. Achieving gender equality would ensure inclusiveness both at the macro and micro level. It means reducing inequality, poverty and unemployment.

5.3. Choice of Appropriate ARDL Model

The choice of the appropriate ADRL models was revealed by the top twenty models using AIC in Figure 7 below. The higher the AIC criterial, the better the ARDL model. The best three models were ADRL (2,1,1, 2, 2,2,2,2,2,2,2), ADRL (2,1,0, 2, 2,2,2,2,2,2,2) and ADRL (2,1,2, 2, 2,2,2,2,2,2,2) and the least was ADRL (2,1,0, 0, 2,2,2,2,2,2,2). The first 2, represented the lag value of the independent variable, the next 1 was the lag value of the endogenous variables. This continued till the last endogenous variable in the model was represented by lag 2.
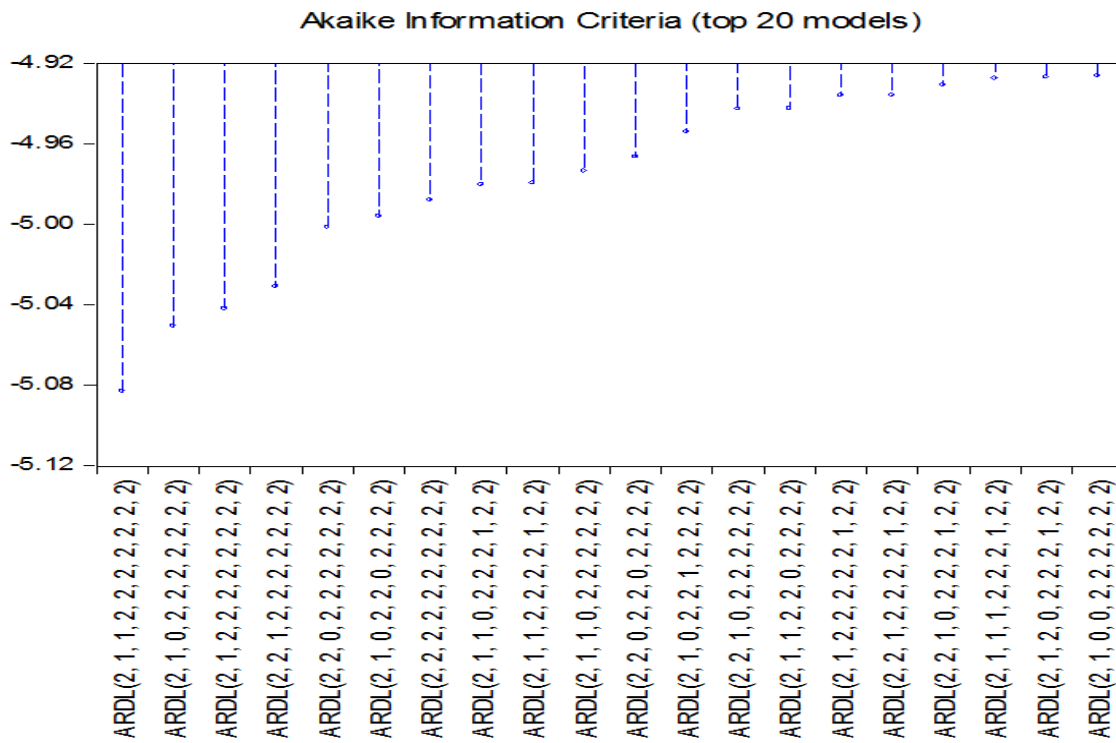
Figure-7. Choice of Appropriate ARDL Model.
Source: Eview Computation using data from WDI (2018); NBS (2018) and CBN (2018).

6. CONCLUSION AND POLICY IMPLICATION

The call for inclusive growth has been greeted with open arms and minds among academics and policymakers across the world including Nigeria as solutions are presently being sought for the problems of poverty, inequality and poverty. This is because with economic growth, the aspirations of many are not being realised. As mentioned earlier, economic growth only benefited a few (the rich) to the exclusion of the poor particularly women. The nature of economic growth created an inequality gap between the men and the women. This manifested in the areas of education, employment and access to productive resources among others. Aside from economic causes, there are some socio-cultural imbalances that tends to cause gender imbalances hence the monumental loss of aggregate output, income, saving, investment, capital accumulation and overall economic retardation. This paper therefore examined the gender inequality implications for inclusive growth in Nigeria from 1980-2018 by using the ADRL model and other econometrics tests. Data used for this study were from the World Development Indicators and other relevant statistical authorities in Nigeria like the Central Bank bulletin, data from the Nigeria Bureau of Statistics and data from the Federal office of statistics.

The findings affirmed that gender inequality in education and employment impact negatively on inclusive growth as revealed by the dynamic short term and long term results and were statically significant. The gaps in these important variables represent a loss of growth inclusiveness.

This paper therefore suggests that gender equality especially in education and employment should not be trivialised if Nigeria is to achieve inclusive growth. Appropriate policy actions targeted at reducing the gender gap in education and employment to reap the benefits that accrue from inclusive growth are needed. There is a great deal of policy focus already on education in certain respect but there is a need to take deliberate policy steps towards ensuring equality in terms of enrolment and the quality of education to address the unemployment problems in the country.

The government should create a special trust fund for scholarships for the less privileged so that they can access education that will help to bridge the gap. Specific policy to ensure that an equal number of men and women

are enrolled in post primary especially in tertiary institutions should be made. This will help to create equal access to opportunities and infrastructure thereby mitigating the gender imbalance in the long term.

In the bid to address the plight of those that suffer from gender imbalances, the government should create special protection and security especially for those in poverty. Initiatives have been taken by successive governments in this regard before such as the Better Life for Rural Women and the Family Support Advancement Programmes as well as the Poverty Eradication Programmes. Though these initiatives have met their death due to political instability, such initiatives with affirmative goals for female empowerment need to be revived and given an accelerated boost.

In conclusion, if the bedevilling problem of poverty, inequality and unemployment must be reduced to the barest minimum, the Nigerian government should ensure gender equality through appropriate policies in line with the United Nations Sustainable Development Goals. Women and men should be given equal opportunities because the gap in gender is the obstacle to inclusiveness.

REFERENCES

Acemoglu, D. and S. Johnson, 2007. Disease and development: The effect of life expectancy on economic growth. Journal of Political Economy, 115(6): 925-985.Available at: https://doi.org/10.1086/529000.

Alfaro, L.C., K.O. Arendam and S.S. Sebrem, 2006. How does foreign direct investment promote economic growth? Exploring the effects of financial markets on linkages. National Bureau of Economic Research Working Paper, No 12522.

Ali, I. and H.H. Son, 2007. Defining and measuring inclusive growth. Application to the Philippines.Asian and Development Bank Economic and Research Department Working Paper Series 98.

Ali, I. and J. Zhuang, 2007. Inclusive growth towards a prosperous Asia. Policy Implications ADB Working Paper, Series No. 9.

Anand, R., M. Saurabh and J.P. Shanaka, 2013. Inclusive growth: Measurement and determinants. An IMF working Paper No. WP/13/135.

Anochie, U.C., C.O. Osuji and C.N. Anumudu, 2015. Effect of gender inequality on economic growth in Nigeria. International al Journal of Current Research, 7(9): 20778-20783.

Anyanwu, J.C., 1997. Poverty in Nigeria: Concepts and measurement and determinant. In the Annual Conference Proceedings of the Nigeria Economic Society (NES). pp: 93–120.

Anyanwu, J.C., F.A. Dimowo and H. Oacheman, 1997. Structure of Nigeria economy. Publshed by Joanee Educational Publishers, Onitsha Nigeria.

Bandiera, O. and A. Natraj, 2013. Does gender inequality hinder development and economic growth? Evidence and policy implications' A World Bank Policy Research Working Paper No. 6369.

Basnett, Y. and R. Sen, 2013. What do empirical studies say about economic growth and job creation in developing countries? Economic and Private Sector Professional (EPS) PEAKS, UK (2013). Published by Department for International Development, Oversea Institute of Development.

Bertay, A.C., L. Dordevic and C. Server, 2018. Gender inequality and economic growth: Evidence from industry-level data. A Paper Presented at Young Economists Conference, 2018 Annual Conference Development Economics and Policy, University of Zurich and ETH Zurich and 2018 WEIA Annual Meeting, and Seminars at the Goethe University and World Bank Malaysia Hub.

Bourguignon, F., M. Fournier and M. Gurgand, 2001. Fast development with a stable income distribution: Taiwan, 1979–94. Review of Income and Wealth, 47(2): 139-163.Available at: https://doi.org/10.1111/1475-4991.00009.

Brooking Poverty Report, 2018. The start of a new poverty narative for the 21st century. Published by Brooking Institution, Washington DC.

Cagatay, E., 1998. Gender and poverty; social development and poverty elimination branch. New York: UNDP.

Cassell, J., 2002. Gender, language and influence. Journal of Personality and Social Psychology, 59(2): 941-951.

CBN, 2018. Dtata on domestic production, employment, consuption and prices.

CBN Statistical Bulletin, 2018. Dtata on domestic production, employment, consuption and prices.

Dollar, D. and R. Gatti, 1999. Gender inequality, income and growth: Are good times good for women? World Bank Working Paper. [314, 316, 319, 329].

Egbulonu, K.G. and I.F. Eleonu, 2018. Gender inequality and economic growth in Nigeria. International Journal of Gender and Women"s Studies, 6(1): 159-167.

Evans, P., 2001. Sex and gender: A world of difference. DFID Developments, 7(13): 32-34.

Hakura, D., M. Hussain, M. Newaik, V. Thakoor and F. Yang, 2016. Inequality, gender gaps and economic growth: Comparative evidence for sub-Sahara Africa. IMF Working Paper. No. WP/16/111.

Hartwig, R., U. Grant and C. Melamed, 2011. Jobs, growth and poverty: What do we know, what don't we know, what should we know?'. Background Paper. London: A Publication of Overseas Development Institute.

Ikechukwu, A., M. Edeme, K. Richardson and B. Azu, 2014. Social welfare analysis of gender inequality in education and employment: Ranking gender inequality in rural and urban Nigeria with generalized Lorenz Curves. IOSR Journal of Humanities and Social Science, 19(10): 69-81.

IMF, 2013. Women, work, and the economy: Macroeconomic gains from gender equity. An IMF SDN/13/10 pg 4.

IMF, 2018. Good for women good for growth: Closing Nigeria's gender gap. A Transcript of IMF Podcast on Macreconomic Cost of Gender Inequality in Nigeria.

Jayachandran, S., 2014. The roots of gender inequality in developing countries, NBER Working Paper No. 20380. Annual Review of Economics, 7(1): 63-88.

Kanu, S.I. and B.A. Ozurumba, 2014. Capital formation and economic growth in Nigeria. Global Journal of Human-Social Science Research, 14(4): 42-58.

Klasen, S., 2002. Low schooling for girls, slower growth for all? Cross-country evidence on the effect of gender inequality in education on economic development. The World Bank Economic Review, 16(3): 345-373.Available at: https://doi.org/10.1093/wber/lhf004.

Klasen, S., 2017. Gender, institutions, and economic development. GrOW Work. Pap. Ser. No. GWP-2017-04, McGill Univ., Montreal.

Klasen, S. and F. Lamanna, 2003. The impact of gender inequality in education and employment on economic growth in the Middle East and North Africa, background paper for women in the public sphere. Washington, DC: World Bank.

Klasen, S. and F. Lamanna, 2009. The impact of gender inequality in education and employment on economic growth: New evidence for a panel of countries. Feminist Economics, 15(3): 91-132.Available at: https://doi.org/10.1080/13545700902893106.

Kuznets, S., 1955. Economic growth and income inequality. The American Economic Review, 45(1): 1-28.

Laura, C., B.D. Esther and L.O. Mercy, 2018. Gender factors and inclusive economic growth: The silent revolution. Sustainability Journal, 10(1): 121.Available at: https://doi.org/10.3390/su1001012.

Malangeni, L. and A. Phiri, 2017. Education and economic growth in post-apartheid South Africa: An ARDL approach. MPRA Paper No. 83017.

National Bureau of Statistics, 2018. Quarterly Unemployment Statistics-Special Edition.

Odozi, J.C., 2012. Socio economic gender inequality in Nigeria: A review of theory and measurements. MPRA Paper No. 4182.

Olatunji, L. and M.S. Shahid, 2015. FDI and economic growth in Nigeria: A co-integration analysis. Business and Economic Research, 5(1): 243-261.Available at: https://doi.org/10.5296/ber.v5i1.6647.

Olujobi, O., 2001. Sociological analysis of gender discrimination. Humanity. Jos Journal of General Studies, 3(2): 125-135.

Osuizigbo, L., 2017. Closing gender gap for growth and poverty alleviation in Nigeria. Apaper Presensted at the Annual Conference of Nigeri Economic Society, 2017.

Ravari, S., 1998. Gender poverty and change: An issue paper. UNDP Research Institute for Social Development Discussion Paper No. 94.

Risikat, N.T., 2012. Female education and economic performance in Nigeria. Journal of Women in Academics, 1(1): 165-171.

Rodgers, Y. and J.E. Zveglich, 2012. Inclusive growth and gender inequality in Asia's labour markets. ADB Economics Working Paper Series No. 321.

Sen, A., 1980. Equality of what? In S. M. McMurrin (Ed.), Tanner Lectures on Human Values. Salt Lake City: University of Utah Press. pp: 353–369.

Streeten, P., 2000. Looking ahead: Areas of future research in human development. Journal of Human Development, 1(1): 25-48.Available at: https://doi.org/10.1080/14649880050008755.

Tzannatos, Z., 1999. Women and labour market changes in the global economy: Growth helps, inequalities hurt and public policy matters. World Development, 27(3): 551-569.Available at: https://doi.org/10.1016/s0305-750x(98)00156-9.

UNFPA, 2009. Gender at the heart of ICPD: The UNFPA Strategic Framework on Gender Mainstreaming and Women's Empowerment.

United Nations Population Fund, 2009. State of the world population. Facing a Changing World, Women, Population and Climate. Published by UNFPA.

Vahabi, M., 2009. A critical review of strategic conflict theory and socio-political instability models. Political Economy Magazine, 119(6): 817-858.Available at: https://doi.org/10.3917/redp.196.0817.

WB, 2018. Unrealized Potential: The High Cost of Gender Inequality in Earnings.

Women Information Centre, 2005. Gender inequality and women's empowerment. Training Manual for for Gender Planning. Ministry of Community Development, Gender and Children, Tanzania.

World Bank, 2002. The challenge of high inequality in China world bank annual development report, 2002. Main Report9english Version), Washinton DC, World Bank.

World Development Indicators, 2018. Development Indicators on Population Dynamics, Health, Education, Labour and Gender.

World Economic Forum, 2018. The global gender gap report, 2018.Measuring the gender gap, part 1. World Economic Forum, CH-1223 Cologny/Geneva, Switzerland.

Yana, V.R. and E.Z. Joseph, 2012. Inclusive growth and gender inequality in Asia's labor markets. ADB Economics Working Paper Series. No. 321.

Yoko, N., 2009. Gender equality and inclusive growth in developing Asia. ADB Economics Working Paper Series No. 186. Metro Manila, Philippines: Asian Development Bank.