

## Leadership Style Influence on Economic Growth in Nigeria

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**Abstract:** This study explores the relationship between the kind of leadership (military leadership via-a-avis civilian leadership) and economic growth in Nigeria, using time series analysis. The results of the study suggest that investment growth and exports growth have had positive effects on Nigeria's economic growth. The study finds no evidence to suggest that military or civilian leadership, *Ceteris paribus*, have positively influenced Nigeria's economic growth.

**Key words:** Leadership style, economic growth, military leadership, investments growth

### INTRODUCTION

According to, the Solow growth model economic growth is an outcome of capital accumulation. Countries that experience per capita growth have increasing capital-labor ratios, which in turn result from high enough rates of savings (capital accumulation) to compensate for the cost of capital depreciation and population growth. For this to happen, the government must create right socio-economic and political environment.

One hypothesis that seems established beyond challenge is the causal link between economic development and democracy. Substantial literature extols the virtues of democratic institutions, arguing that the political practices and freedoms associated with elected civilian leadership (democracy) have a positive impact on long-term growth (Doucouliagos and Ulubasoglu, 2008). As Lipset (1963) notes, perhaps the most common generalization has been that democracy is related to the state of economic development. The more well-to-do a nation is the greater the chances that it will sustain democracy.

Bhagwati (2002) notes that compared to authoritarian regimes, democracy fosters an environment that facilitates the innovative and entrepreneurial process so, essential for sustained development. Democracy enhances economic development across countries giving democratizing countries a greater capacity to adopt new technologies and to reallocate resources in response to changing economic conditions, thereby increasing the rate of economic growth. Democratic countries are also more creditworthy compared to other countries and they are safer places to invest (Burkhart and Lewis-Beck, 1994).

Boko (2002) study on the impact of institutional factors such as economic freedom, democracy and civil

liberty on economic growth in Africa indicates that promoting economic freedom, political rights and civil liberty is growth enhancing in African countries. The study further suggests that the strengthening of the legal framework, including the enactment and enforcement of property rights laws, must precede economic growth in Africa.

The institutions associated with democracy, competitive elections, encourage politicians to devote resources to education. Democratization has positive observable effects on the percentage of government spending allocated to education, the distribution of federal funding among different levels of education and the distribution of funds within primary education among state and local actors. This is critical because raising the level of education is the most efficient way to accumulate human capital in the poorest countries, hence, improving their standard of living (Brown, 2002; Schultz, 1993).

However, not everyone believes that democracy should precede economic development. As Glaeser *et al.* (2004) argue, a nation ought to have economic growth and human capital accumulation that entrench democratic institutions improvement, rather than the other way around. Moreover, in many nations (that is, South Korea, Taiwan, Singapore and Argentina) during the 1970s and 1980s, rapid economic growth had been facilitated not by democracy but rather by authoritarianism, thus, having an inverse relationship between economic growth and democracy. As Glaeser *et al.* (2004) note, South Korea's economic progress can be linked to the choices made by its dictators, not to the emergence of democratic institutions, which only happened subsequently.

According to Brown (2000), regime type is not the explanation for the wide disparity in education enrollment across Africa. Colonial heritage is therefore, a good

predictor of primary school enrollment for low-income countries in Africa than democracy since, colonization's impact on education has not diminished since, independence.

Other scholars argue that democracy is better for development only when accompanied by an expansion of markets and competition. Democracy without markets is unlikely to deliver significant growth. In this context, liberalized international trade can act in a productive symbiosis with democratic institutions to promote development by facilitating bilateral flows of ideas, knowledge, goods, services and technology (Bhagwati, 2002; Boko, 2002).

Military leadership in Africa was well accepted in the 1960s and 1970s. The ordinary people felt a sense of security with the uniform, so to speak. Unlike the politicians, who were prone to corruption, the military by training, was supposed to be composed of honest gentlemen. The politicians were also burdened with the traditional cultural heritage, whereas the military, by virtue of their professional role, were technical and efficient. These professional attributes were regarded as advantageous for economic growth and political stability (Obasanjo, 2000).

Three decades on, the military leadership ability to deliver either democratic governance or economic growth has been a disaster. The empirical record is one of shocking failure. The scale of comprehensive corruption and outright plunder of national wealth is truly mind-boggling. Rather than promote peace and unity, military leadership has intensified social conflicts, violence and even provoked secessionist movements. Military leadership, therefore, seem to have lost its initial social attraction (Obasanjo, 2000).

Nigeria is selected for this study because, it should be 12 leaders since, its independence in 1960, 6 of them, who governed under military leadership. It is Africa's most populous nation with a large labor force in a population of 114 million which can be good ingredients for economic growth. Following decades of misrule, Nigeria's transportation, communications, health and public services sectors have been ailing. Once a breadbasket, Nigeria witnessed a severe deterioration of its agricultural sector. Social, religious and ethnic unrest further complicate business ventures in Nigeria. Moreover, the government remains highly over-reliant on oil exports for its revenues and is therefore, subject to the volatility of the world price for petroleum (Kagochi *et al.*, 2007).

Given its abundant human and natural resources, Nigeria seemed destined to become a regional economic giant; yet this has not happened. Despite being United

States 5th largest oil supplier and amassing oil revenues worth \$280 billion over 3 decades, Nigeria seems trapped in an economic quagmire with most of its people earning less than a dollar a day (UNDP, 2008). Since, 1990 the relative share of petroleum in total exports has been about 96%. Agriculture's contribution has fluctuated between 0.5 and 2.3%, while the share of other products has fluctuated between 0.5 and 1.7%. Thus, petroleum exportation has totally dominated Nigeria economy and government finances since, the mid 1970s (Iyoha and Oriakhi, 2002).

The study therefore, examines the relationship between leadership style and economic growth in Nigeria. The objectives of the study are:

- To develop a model of leadership style and economic growth for Nigeria.
- To test empirically the influence of leadership style and other factors on economic growth in Nigeria.
- Discuss policy implications.

**The model:** In order to look at the relationship between military leadership, capital formation, exports and growth we use the standard Solow growth model. Solow model is used because, it contains a shift parameter that reflects not just technology, but other factors such as resource endowments, climate and democracy (Mankiw *et al.*, 1992), thereby making explicit the link between democracy and economic growth.

The solow model is a production function with positive and diminishing marginal products, as well as constant returns to scale. It relates output (Y) to a pair of essential inputs, capital and labor (K and L) and to the shift parameter (A) representing technology, institutions or kind of governance. The production function is of Cobb-Douglas form, output in period, t, is defined as:

$$Y_t = A_t K_t^\alpha L_t^{1-\alpha} \quad 0 < \alpha < 1 \quad (1)$$

The growth version of Eq. (3) is:

$$y_t = \beta_0 + \alpha k_t + (1-\alpha)l_t \quad (2)$$

An augmented production function framework from Eq. (3) is used to look at the relationship between economic growth and military leadership in Nigeria. The empirical model tested is therefore,

$$y_t = \beta_0 + \beta_1 k_t + \beta_2 l_t + \beta_3 x_t + \beta_4 m_t + e_t \quad (3)$$

where,

y = The growth rate of GDP.

k = The investment.

- l = The growth rate of labor.
- x = The growth rate of exports
- m = The dummy for leadership.
- e = The stochastic error term.

Since, k and l are inputs they are expected to be positive. The dummy of leadership takes a value of one in years that have military leaders and 0 in years with civilian leadership, with lag of 2 years. Military leadership is defined as leadership formed after coup d'état. A coup d'état is defined as the sudden, illegal overthrowing of a government by the state military to replace civil government or another military government. Civilian leadership is defined as a democratically elected leadership.

We hypothesize that output growth is negatively influenced by military leadership. The reason is that military leadership is expected to be less transparent when compared to a democratic leadership. It is expected that Military leadership leads to misallocation of resources which translates to slower economic growth. Labor growth is expected to have negative influence on Nigeria's economic growth. Labor force growth contributes positively to GDP growth when matched with similar growth in capital investment. According to CBASSE (1986), when the growth of the population and labor force is rapid, the growth of the stock of physical and human capital must be equally rapid if a decline in their average quantity per worker, known as capital dilution, is not to occur. In absence of rapid growth in capital stock, as has been the case in Nigeria, per capita growth may slow or reverse.

We hypothesize that exports growth will have a positive impact on output growth as outward-oriented trade policies enhance economic growth. Similarly, we hypothesize that capital will have a positive influence on growth, because the greater the capital present in a country the higher the output. In short, all independent variables, except military rule, are expected to have positive signs vis-a-vis Nigeria's economic growth.

**Estimation:** Data on Gross Domestic Product (GDP), investment and exports were obtained from the World Bank publication series (several years). Data for labor force growth was obtained from Ndulu and O'Connel (2000). The study used time series analysis that assumes the time series variable evolves as a process described as a function of its own history or time. Data was analyzed using the multiple regression technique using the software LIMDEP. Time series data were used from 1960-2001.

Multicollinearity, heteroscedasticity and first order autocorrelation tests were performed using Correlation

Table 1: Correlation matrix

Variable	y	k	l	x
y	1.00			
k	0.30	1.00		
l	-0.09	-0.06	1.00	
x	0.49	0.01	-0.02	1.00

matrix, the Goldfeld-Quandt test and Durban-Watson tables, respectively. Table 1 shows the correlation matrix between the variables that are used in the model. From the results, the most highly corrected variables are GDP growth and export growth with a value of 0.49. Since, none of the variables have a correlation matrix of >0.5, we can conclude that multicollinearity might not be a big problem with the data set used.

We also used the Goldfeld-Quandt test to test the presence of heteroscedasticity. The data was sorted by the GDP annual growth variable into those years that Nigeria had a positive GDP growth rate and those that had a negative GDP annual growth. Three middle observations were dropped from the sample. The output associated with the 2 separate regressions is as follows (t-statistic value in parenthesis).

- Years with positive GDP growth.

$$y = 12.93 + 0.11k - 3.31l - 0.03x + 4.4m \quad ESS_1 = 314.73$$

(1.17) (1.74) (-0.80) (-0.61) (1.87)

- Years with negative GDP growth.

$$y = -25.58 + 0.02k + 8.05l + 0.07x - 0.02m \quad ESS_2 = 171.23$$

(-2.67) (0.023) (2.21) (1.36) (-0.01)

F-statistic used to test for heteroskedasticity assumption is  $ESS_1/ESS_2 = 314.73/171.23 = 1.84$ . Under the null hypothesis, F will be distributed with 18° of freedom in the denominator and numerator. F-tabulated at 5% level of significance is 2.15. We therefore, fail to reject the null hypothesis of equal variance in the 2 periods.

The full model was re-run and the following regression results were obtained.

$$y = 2.75 + 0.11k - 1.25l + 0.13X - 0.34m \quad ESS = 1556.50$$

(0.35) (2.15) (-0.41) (3.68) (-0.16)

Durban-Watson test for serial correlation in the residues was used to test for first order autocorrelation using the hypothesis:

$H_0$  = No autocorrelation.

$H_a$  = Not  $H_0$ .

From the Durban-Watson tables with 43 observations and 5 explanatory variables,  $dl = 1.29$  and

du = 1.72 at 5% level. Since, our estimated value of 1.74 lies between 1.72 and 2.28 (4-u), it is in no autocorrelation zone. We therefore, fail to reject the null hypothesis that there is no serial correlation in the residues.

## RESULTS AND DISCUSSION

The results of the Ordinary Least Squares (OLS) regression show that the dummy variable for military leadership is negative but not significant at 10% level (Table 2). We therefore, fail to reject the null hypothesis and conclude that we have no evidence to suggest that military leadership is better or worse than civilian leadership when, it comes to influencing the level of GDP growth in Nigeria.

The findings are consistent with earlier studies related to African countries. Tiruneh (2006) examined the relationship between economic performances of authoritarian and democratic systems in 44 African countries during the 1990s and found that the influence of regime type does not have strong impact on African economic growth. Domestic investment, however, had a statistically significant influence on economic growth of these African countries.

Ocheje (2001) notes that although, the oil wealth presented Nigeria with an opportunity for the elimination of poverty, most of it disappeared into the private bank accounts of by civilian governors, military administrators, civil servants and their collaborators in the private sector. According to Guseh and Emmanuel (2007), the Nigerian economy is characterized by the twin problems of mismanagement and corruption by public officials under both military and civilian regimes. Nigeria was ranked as the most corrupt country in the world in 2000 and the 2nd most corrupt country in 1999, as well as in 2001, 2002 and 2003.

That coefficient of investment growth is positive is consistent with the prediction of this study and the underlying economic theory. Higher growth in capital formation encourages economic growth and this is what appears to have happened in this case. For sustained growth in capital formation especially from abroad, Nigeria's leadership must create the correct environment in terms of making sure that there is both economic and political stability and structures within the government system that protects such investments.

Table 2: Ordinary Least Squares (OLS) regression results

Variable	Coefficient	S.E.	t-ratio	P[ T > t ]
Constant	2.750	7.280	0.351	0.727
k	0.107	0.050	2.154	0.038**
l	-1.250	3.030	-0.414	0.681
x	0.135	0.037	3.676	0.007**
m	-0.337	2.130	-0.158	0.875

\*\*Indicates significance level <0.05

The coefficient for labor force growth is negative consistent with the prediction of this study and the underlying economic theory. According to Ukpolo (2002), population growth negatively affects Nigeria's economic growth in the long term. Growth in the stock of human capital requires investment in both education and technology (Brown, 2002) and corrupt regimes tend to invest less in development of human capital including education.

The coefficient for export growth is positive and significant at 5% level of significance. This is consistent with the prediction of the study and the underlying economic theory. According to Mukoko (1994), exports contribute positively to the economic growth of African countries by reallocating resources from the less efficient non-export sector to the more productive export sector. Nigeria has over the years been heavily reliant on exports, especially oil and gas, for its economic growth.

As a way of interpreting the results for capital investment growth, for example, an increase of 1% in capital investment growth, *Ceteris paribus*, will result in a 0.11% increase in GDP growth. Similarly, an increase of 1% in export growth, *Ceteris paribus*, will result in a 0.14% increase in GDP growth. The F-value of 4.73 was significant at the 5% level and the adjusted R<sup>2</sup> was 0.38.

## CONCLUSION

This study concludes that capital investment growth and exports growth are the most important determinants of economic growth in Nigeria. The study also concludes that the kind of leadership that Nigeria has embraced in the past has had no impact on its level of GDP growth. Military leadership or civilian leadership, *Ceteris paribus*, does not seem different when influencing economic growth in Nigeria.

In terms of policy, the Nigerian government should be willing to initiate policies that promote export-led economic growth. This includes diversification from the oils and gas sectors, which form 90% of its export, to creating comparative advantage in other sectors. The leadership in Nigeria also needs to enact greater transparency and accountability in managing its export earnings, including oil earnings, so that increased export growth translates into enhanced economic growth. By making the leadership more transparent, the country will be able to attract more capital inflows from abroad which is seen to increase economic growth.

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