

ROLE OF STATISTICS IN NIGERIA POLITICS

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ABSTRACT

This paper attempts to analyze the role of Statistic in our society today through comprehensive and timely collection of data from the grass root to the urban and utilizing same for efficient and adequate elections. Attempt was made to critically justify how elections in politic dispensation can be improved upon. The discussion for considering the use of statistics in politics as a useful resource for democracy in the society have also been advanced. The quest for democracy and good governance has been a global phenomenon over the years and Nigeria which is still green in democracy is not an exception. Evidence has shown that both in the theoretical and empirical literature, democracy, good governance and statistics mutually reinforces one another and are supportive of economic development. In fact, this probably underscores the popular saying that the worst form of democracy is better than a military regime no matter how good it may be. The indispensability of statistics for economic development cannot be overemphasized. Statistics provides the ingredient for planning and policy execution. It provides the numbers for matching resources with needs, particularly, ensuring equity and justice. The paper aimed at demonstrating how democracy and good governance are appraised using statistics in Nigeria.

Keywords: Statistics, People and Politics

INTRODUCTION

Official statistics inform the right decision across the society. These are decisions that affect the generality of the people from grass root to the urban. Reliable and adequate official statistics are essential to smooth planning and development of the society. These planning ranges from the diverse statistics which we can collect on birth, death, income, population size, population distribution by age, sex, location etc to economic statistics on domestic product, inflation, market prices of goods and service.

Statistics today, in the era of information outbreak can be generally defined as the "Science that is concerned with the gathering, evaluation and processing of information". Society's demand for qualitatively controlled information absolved from noises" which intentionally or not are included, is especially obvious in a returning, from time to time discussion, about the control of the public measurements related to the Mass Media audience, political parties and persons, cducational parameters, cconomical and social indexes and factors, etc (Chadjipadelis, 2002).

In Nigeria, there is the problem of respondents providing inaccurate information using survey, data formation by researcher, data 'padding" to suite current situation and corrupt authorities. These have had serious effect on the development state of the country. In terms of inflation, the absence of price control cause wide variation in the price tags of common goods and services within and outside a given territory. The question we are faced with today is "can any planning/allocation be done effectively without accurate and timely data?" If Government cannot account for its population structures, its available resources, has price control and stability, then what we will experience is lopsided allocation, ineffective and efficient utilization of resources. This is the case of the Nigeria state. Government effort if any, have not yield any positive benefit on the people.

The Nigerian state is bedeviled with the absence of quality data. The role of statistics in our society is that of man and its shadow where both are inseparable and Shangodoyin and Lasisi (2011) stressed that statistics is an indispensable tool for national development, growth and planning and they maintained that a government without a viable infrastructure for formation generation,

dissemination and usage is severely handicapped in doing proper planning, monitoring and evaluation of development programmes and projects and also in arriving at a good decision with respect to their government policy formulation. In the Just concluded 42nd National conference of the Nigeria Statistical Association (NSA) held in Anambra state, emphasis was on the need for articulating all the relevant agencies responsible for producing statistical data. It was stressed that when we have the right statistics, resources will be effectively channeled and utilized. Good statistics that has been collected according to agreed good practices using appropriate methods for data collection, processing and dissemination are crucial as a tool for development (Doguwa, 2009).

STATISTICS AND NIGERIAS POLITICS

In Nigeria politics today, at the time of election politicians become interested in the number of registered voters, Number of polling units and wards, population strength of the local Government /wards, Numbers of INEC materials and manpower deployed, scheduled dates for elections, and other relevant statistics. Politicians then begin to analyze and permute the data for their success, It becomes interesting to know that at that point Nigeria politicians begin to show value for statistics. The question one would ask in at why statistics that took the first and most important position during election be relegated to the lost after election? This is a clear evidence of the fact that the relegation of statistics is a deliberate action by the politicians in the government of the day. This is an enormous challenge and it is the cause of the retardation faced by our country.

We have in so many literatures the importance of statistics in everyday life. The countries in the western world have been known to develop with accurate and timely statistics. There has been divergence in the views of many scholars trying to understand the nexus among democracy, good governance and statistics in promoting economic development. For scholars of liberal dispositions, statistics, democracy, good governance and development are inextricably linked, with emphasis on good governance as the link between them (World Bank, 1992). But how have these studies helped the Nigeria situation? What stage of development have we achieved with all the results from "novel" studies on statistics and national development and the likes? What plans have been executed that have benefited the people from all the data gathered and published by the agencies so far? Is it that data are not accurate or are dirty? If answers can be provided for the above questions, then we can integrate into our politics and be sure that the predictions to be made in our political sphere will be as close as possible to the actual outcome holding other influential variables as constants. Shagodoyin and Lasisi (2011) see statisticians are exponents of facts and figures to their immediate community. And they made an Instance where statisticians could use the result of opinion polls as a base to advance the predictions of population census, However, these predictions they said are meaningful if every literate resident of a community is able to understand and interpret the information presented to him. To enhance this, some rudimentary knowledge of statistics is obviously needed as to helps for better understanding of the underling phenomena. The authors had advocated for viable statistical system if a country must develop. The statistical system is indispensable because with it adequate statistical information required for designing and political policies are harnessed.

Uses of Statistics in Politics

Behind the scenes in every arena of politics, statisticians are generating information that fuels political theory, campaign strategy, and policy development. Here is a glimpse into 10 uses of statistics related to political systems.

Public Information

Citizens of a given community, state or nation need to know and understand how their government functions. Beyond mere knowledge, they want to interpret how political structures, policies, and practices impact their lives. In democratic societies, these citizens exercise their voice by voting.

Election polls and public opinion polls are key tools in collecting and disseminating public information. The Pew Research Center, a leader in conducting public research, says that the primary purpose of election polls is public understanding.

A critical element of communicating public information is the media. Writers, reporters and other media personnel rely on statistical reports to inform and educate their audiences. The media is also a forum for calls to action – challenging individuals and groups to act as agents of change.

Another aspect of information-sharing is in the sphere of formal education. Teachers in public and private schools—from primary to university levels—depend on applied statistics in teaching political science and public policy. Consider, just as an example, how many textbooks and educational websites include graphs and charts generated by statisticians.

Election Forecasts

During any election season, media channels clamor for the most current and accurate forecasts of the expected results. Statisticians develop complex models that consider numerous dynamic factors to deliver the most likely predictions.

Five Thirty Eight, an internet initiative hosted by ABC News, for example, is on a mission to give objective reviews of projected election outcomes. The organization has been making these predictions for years, with increasingly advanced analytics.

Most recently, the 538 site (named for the total number of electors in the electoral college) has developed a sophisticated model for predicting the results of the 2020 Democratic primary. Beyond traditional forecasting factors, this new model incorporates simulations for polling swings and state-by-state effects .

As data scientists discover new ways to collect and interpret data, election forecasting continues to evolve. Forecasts are important to the general public, the news media, and the candidates.

Political Campaign Strategy

Political candidates spend huge sums of money on election campaigns. While the public primarily sees funding spent on advertising, there are other critical – and costly – financial aspects, too. One large chunk of spending is statistical research that leads to strategy.

All election spending is measured by the Federal Election Commission and then reported to the public by third parties. For the 2019-2020 election cycle, through February 21, 2020 (prior to Super Tuesday in the Democratic primaries), candidates spent \$163,636,308 in the category of strategy & research.

Research in political elections has ramifications for every aspect of a candidate's campaign. Examples of interesting statistics that lead to actionable information include the following:

- Public opinion that affects a candidate's position on issues
- Voter attitudes that influence campaign messaging
- Demographics that determine targeting
- Media habits and preferences that drive advertising placement

Applied statistics can have a dramatic impact on the outcome of a political campaign, and this creates high value for the role of statisticians.

Microtargeting in Elections

One particular aspect of campaign strategy has emerged in contemporary context. Microtargeting is a technique that relies on statistical methods to draw conclusions about individuals from By linking variables in the raw data, data scientists now have the ability to identify consequential patterns that can be applied to predict response on particular issues. Using big data, modern political campaigns have unprecedented access to huge volumes of information about voters. Unlike politics of the past, today's campaigns can target individuals with tailored messages based on their

preferences and interests. Microtargeting can even draw increased turnout among non-traditional voters.

Public Policy

Statistical information drives planning and decision-making in public policy, and major organizations have been established to facilitate these processes. Federal statistical agencies are charged with collecting and analyzing data across major government entities such as the Commerce Department, the Education Department and the Labor Department.

Here are just a few of the ways these statistical agencies contribute to policy analysis and development:

- The National Center for Health Statistics conducts population and provider surveys to collect information on topics such as nutrition, family growth, and hospital care. This information is used by the Centers for Disease Control and Prevention to influence governmental policy related to improving health.
- The Bureau of Labor Statistics tracks data such as inflation, consumer spending, and employment. The BLS serves public and private sectors to inform decisions for policymakers, businesses, and individuals looking for jobs.
- The Bureau of Justice Statistics studies crime and judicial systems through such practices as interviews with crime victims and evaluations of the justice system. Findings are used to fight crime and to regulate efficiency.

Economic Regulation

A nation's economy is incredibly complex, with countless variables affecting the cycles of a myriad of interrelated systems. Economic regulation is an intricate interaction between governmental and market forces.

The U.S. Bureau of Economic Analysis provides essential statistics about the economy that inform all three branches of government and private sectors. A world leader in economic statistics, the BEA accumulates and analyzes data, devises analytical methods, and communicates information from findings. These are some ways BEA data affects the economy:

- The BEA produces some of the world's most notable statistics, such as gross domestic product (GDP). This information influences the government's decision-making about economic issues like taxes and interest rates. The data is also used by market leaders to communicate key indicators to investors and to implement strategy.
- Location-based measurements by the BEA drive federal action. The U.S. government distributes hundreds of billions of dollars, and allocations are affected by regional statistics such as census data.
- International financial information is also developed and disseminated by the BEA. This affects trade negotiations, price indexes and international market shares for private companies.

Legislation

Public opinion and congressional action are closely connected. It is important for legislators to listen to the people they represent — the people who elected them to office.

Members of Congress receive large volumes of communication from constituents. With the ever-increasing use of technology, the number of contacts from citizens is steeply rising, too. Office staff members are tasked with receiving all this input and translating it to information that reflects the whole. Further, lobbyists represent special interests of the people. As lobbyists seek to persuade legislators, one key resource they use is quantitative information. The receiving lawmaker applies this information in the broader context to more clearly understand issues and potential outcomes of proposed legislation.

Diplomacy and International Initiatives

In the United States, managing relationships with the leaders and citizens of other countries is a function of the Department of State. Diplomacy promotes American interests while building positive relationships with other nations. Data analysis in foreign affairs strengthens diplomacy by providing useful information for programming and policy decisions.

Data in diplomacy has been studied by the U.S. National Library of Medicine. Some identified application examples include:

- Evaluation of international aid or lending based on a comparison of detailed levels of data.
- Global health initiatives based on tracking of mortality rates.
- Fighting human rights violations based on data collected by non-profit groups.

The Brown University library provides links to data sets with international statistics. Data includes topics from industry to politics to education and more. This is the type of information used by scholars and diplomatic leaders.

Social Science Research

The Social Sciences provide a foundational understanding for improving social systems and building communities. For every public personality leading change in society, there are players in the background studying and catalyzing movements. Statistical information is a core resource for social scientists.

Organizations that provide statistics in everyday life are critical to social science research in politics. Political categorization, such as studies by the Pew Research Center, gives insights about the underlying perspectives and values among the citizens of a political state. This work depends on statisticians to develop, execute and communicate research.

Similarly, American National Election Studies produces statistical reports that measure various traits and motivations of the U.S. electorate. For example, the ANES Guide includes interesting statistics such as the following.

- Social characteristics like gender, education and occupation.
- Public opinion on matters of policy like government health insurance and military spending.
- Evaluation of political candidates.
- Involvement in politics.

Government Accountability

In democratic societies, accountability to the people is a core value. Governments, therefore, rely on factual, systematic information to guide decision making.

In the United States, the Federal Statistical System includes 107 agencies in various governmental capacities. There are 13 primary statistical agencies which receive a bulk of federal funding.

Federal statistical agencies are charged with delivering unbiased information to the public, businesses, and governments. Government leaders use these statistics to determine funding allocations and to guide the development of federal policies and programs.

Private statistical organizations are also an important component of assuring accountability in government. Statistica.com, for example, calls itself the "fact destination." The company supports a variety of research, including public opinion on elected officials as well as policy and procedural issues.

Open Gov is an industry-leading company that provides resources for governments to build trust with constituents. Products equip users to present complex reports, engage audiences for feedback and then analyze that engagement.

ELECTION STATISTICS AND ANALYSIS

In this section, we present some statistics from previous elections and attempts to analyze the data using simple statistical tools.

Statistics deals with data collection from all sectors of human life. And deciding the elect in an election is based on the candidate with the highest number of votes by counting. From 1999- 2015, the Independent National Electoral Commission has kept a database of statistics from number of registered voters, to the number of votes cast in each polling units, which is collated to determine the elect.

Some of the statistics for/from are shown in the tables below;

Table 1: INEC Distribution of Senatorial Districts, Federal and State Constituencies, Electoral Wards, Polling States

S/ N	State	No. of LGA	No. of Senatorial Districts	No. of Federal Constituencies	No. of State Constituencies	No. of Wards	No. of Polling Stations
		1	2	3	4	5	6
	South West						
1	Ekiti	16	3	6	26	177	2195
2	Lagos	20	3	24	40	245	8465
3	Ogun	20	3	9	26	236	3210
4	Ondo	18	3	9	26	203	3009
5	Osun	30	3	9	26	332	3010
6	Oyo	33	3	14	32	351	4783
	TOTAL SW	137	18	71	176	1544	24672
	South East						
7	Abia	17	3	8	24	184	2676
8	Anambra	21	3	11	30	326	4623
9	Ebonyi	13	3	6	24	171	1784
10	Enugu	17	3	8	24	260	2959
11	Imo	27	3	10	27	308	3523
	TOTAL SE	95	15	43	129	1249	15565
	South South						
12	Akwa Ibom	31	3	10	26	329	2982
13	Bayelsa	8	3	6	24	105	1805
14	CrossRiver	18	3	8	25	193	2283
15	Delta	25	3	10	29	270	3625
16	Edo	18	3	9	24	192	2629
17	Rivers	23	3	12	32	319	4441
	TOTAL SS	123	18	55	160	1408	17765
	North West						
18	Jigawa	27	3	11	30	287	3527
19	Kaduna	23	3	16	34	255	5108
20	Kano	44	3	24	40	484	8074
21	Katsina	34	3	15	34	361	4896
22	Kebbi	21	3	8	24	225	2398
23	Sokoto	23	3	11	30	244	3035
24	Zamfara	14	3	7	24	147	2516
	TOTAL NW	186	21	92	216	2003	29554
	North East						
25	Adamawa	21	3	8	25	226	2609
26	Bauchi	20	3	12	31	212	4074
27	Borno	27	3	10	28	312	3933
28	Gombe	11	3	6	24	114	2218
29	Taraba	16	3	6	24	168	1911
30	Yobe	17	3	6	24	178	1714
	TOTAL NE	112	18	48	156	1210	16459
	North Central						
31	Benue	23	3	11	29	276	3691
32	Kogi	21	3	9	25	239	2548
33	Kwara	16	3	6	24	193	1872
34	Nassarawa	13	3	5	24	147	1495

35	Niger	25	3	10	27	274	3187
36	Plateau	17	3	8	24	207	2631
	TOTAL NC	115	18	49	153	1336	15424
					0	62	562
37	Abuja FCT	6	1	2			
	GRAND TOTAL	774	109	360	990	8812	120001

Source: INEC, Abuja

Table 2: Summary of the distribution in Table 1

Item	Total Number
Local Government Areas	774
Senatorial Districts	109
Federal Constituencies	360
State Constituencies	990
Wards	8812
Polling Units	120001

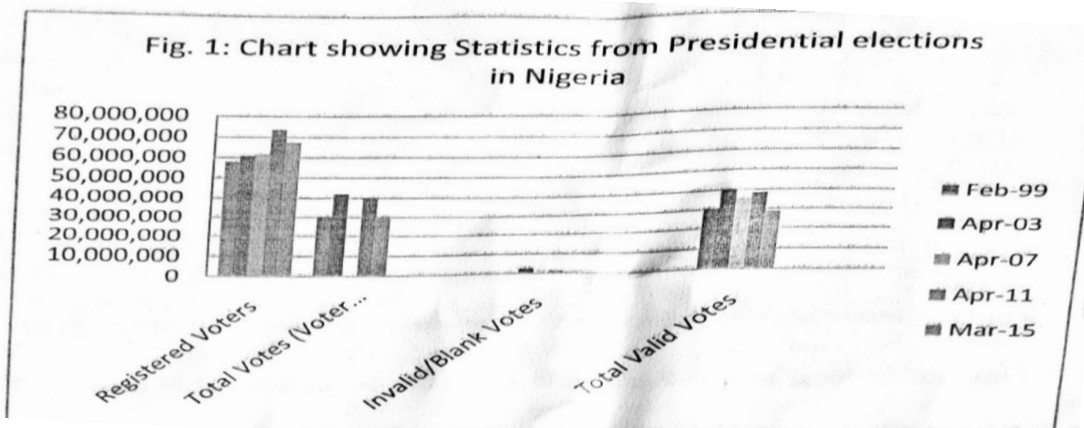
Source: INEC, Abuja

Table 3: Statistics from Presidential Elections

	February 1999	April 2003	April 2007	April 2011	March 2015
Registered Voters	57,938,945	60,823,022	61,567,036	73,528,040	67,422,005
Total Votes (Voter Turnout)	30,280,052 (52.3%)	42,018,735 (69.1%)	NA (approx. 58%)	39,469,484 (53.7%)	29,432,083
Invalid/Blank Votes	431,611	2,538,246	NA	1,259,506	844,519
Total Valid Votes	29,848,441	39,480,489	35,397,517	38,209,978	28,587,564

Source: inecnigeria.org

The tables 1-2 above contain statistics relevant to all political players in the country.



The statistics in table 3 are represented in the chart above in figure 1. From the figure, 2003 elections had the highest number of total votes cast and the highest number of total valid votes. However, it was observed from the chart that 2011 had the highest number of registered voters followed by 2015. This is a pointer that the number of voters may be independent of the co Date

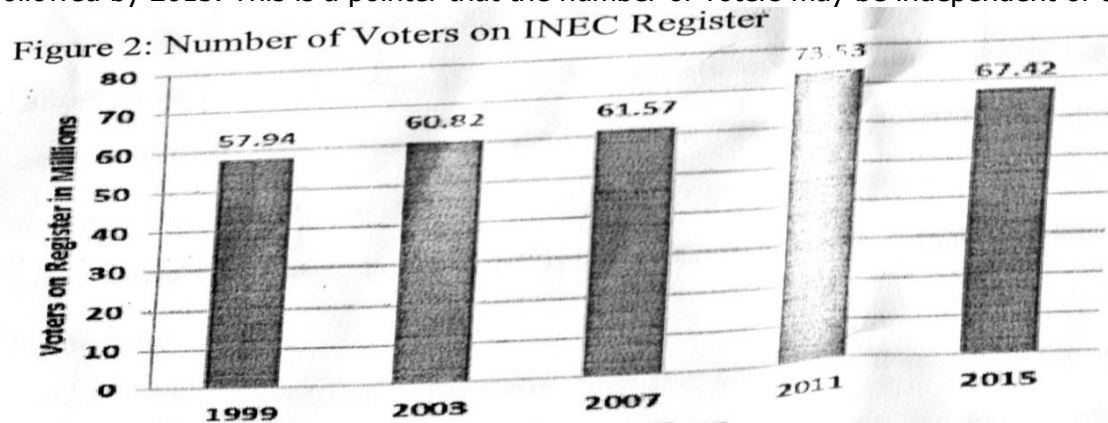


Figure 2 showed the number of voters on the INEC register for election years 1999, 2003, 2007, 2011 and 2015. From the graph, 2011 election year had the highest number of registered voters, followed by 2015 election year with 67.42cm.

Table 1: Locally elected female representatives after the last three elections

Election	2007		2011		2015	
	#	%	#	%	#	%
Councillors						
Female councillors	665	10.2	738	12.5	740	9.8
Male councillors	5,828	89.8	5,175	87.5	6,828	90.2
Total Councillors	6,493	100	5,913	100	7,568	100
Chairpersons						
Female chairpersons	56	9.9	30	3.9	34	4.4
Male chairpersons	510	90.1	738	96.1	740	95.6
Total chairperson	566	100	768	100	774	100

Source: 2015 Statistical Report on Women and Men in Nigeria, National Bureau of Statistics.

Following the outcome of the 2015 election, 9.8% of councillors and 4.49% chairpersons were female, while 12.5% and 3.9% were females in 2011 and in 2007, 10.2% and 9.9% were females respectively as shown in Table 1 above.

NIGERIA'S ELECTION RESULTS PREDICTION

Having displayed some of the statistics and possible analysis made, its pertinent that election results are very sensitive and dear to each political party and candidate as well as the wellbeing of the country. The results are influence by so many factors, some of which are not allowed to play their role due to the interference of the human agents by way of rigging, violence and snatching of election materials, vote buying", under age voting as we have experienced in the past elections and these have led to parties dragging themselves to the tribunal. Empirical predictions of election results in the face of these unholy acts become effortless and even frustrating. In the developed countries like the US, Russia and the likes, there have been evidences of empirical predictions of the various elections using opinion polls and sophisticated statistical prediction models (see The Economist (2018), Yatsko (2017), Arrow et al. (2008), Berg et al. (2008a), Holbrook and DeSart (1999), Kaplan and Barnett (2003), Soumbatiants et al. (2006), Rothschild (2009), Gelman and King (1993), However, the Donald Trump victory over Hillary Clinton became a big lesson to pollsters and data scientists. Predicting human behavior is one of the world's most difficult tasks and this gave birth to the assertion by the Economist The real world is too

complex for even sophisticated models to So capture fully" after the Trump victory. This lead statistician George Box to say, All models are wrong, but some models are useful".

Methods and Models for predicting elections

In the Nigeria case, predicting our elections is challenging because of electoral malpractices and violence. Holding all these constant, statisticians and data scientists can be predict the elections through some of these processes.

1. Opinion polls
2. Binomial
3. Normal approximations
4. Confidence Interval
5. Economic models (e.g. Ray Fair model)
6. Five Thirty Eight
7. Monte Carlo Simulation
8. Bayesian Inference
9. Votamatic
10. RAND Tracking Poll
11. Correlation analysis
12. Regression analysis
13. Multivariate methods

In addition to these, some assumptions (which often times need to be questioned) need to be made and to be. especially skeptical when predicting a rare event with limited history using human behavior. With these methods and models, one can with a high probability predict the outcome of elections as they have been employed| to predicting elections with high accuracy.

CONCLUSION

Nigeria's democracy is in its early stage and more need to be done in the aspect of educating the populace on their power to decide and avoid electoral violence and sharp practices. Though the human behavior is difficult to predict, statistical models and simulations with relevant assumptions can help tell to a large extent what actions the human mind will take.

RECOMMENDATIONS

Nigerian democracy is relatively young but marred by all forms of electoral malpractices which affect the quality of statistical data being collected and collated. When the statistics are dirty, the results of the analysis will be misleading as well as the decision made. that; One cannot but wish for a better deal in the coming elections and hence we recommend that;

1. Politicians in government should leave by the promise and manifestos of their party and have the mind to serve and not to be served as this will eradicate the initiation/request for vote buying and selling.
2. Statisticians should direct their focus on Nigeria's election for quality statistics.
3. Human development and positive mind building campaign should be carried out for us Nigerians to be ready to accept positive change and development to get things done according to the norms.
4. Government and its elements should be purged and those ready to serve selflessly be appointed as these problems face by Nigerians Is surmountable but with only those who are determined along with a human developed society where there is a "system".
5. Statistics should be introduced in our curriculums at all levels and made compulsory as this will help the society understand statistical results when displayed.

REFERENCES

Adel. M. Abdellatif (2003), "Good Governance and its Relationship to Democracy and Economic Development" a paper presented at the Global Forum III on Fighting Corruption and Safeguarding Integrity (GF3/wa/iv – 3/S1). 4 -6.

Beetham, D. (1992): "Liberal Democracy and the Limits of Democratization", Political Studies Special Issues, 40, 40.

Easterly, W. and Levin, R. (1997): "Africa's Growth Tragedy: Policies and Ethnic Divisions, Quarterly Journal of Economics, 112, 1203-50.

Eyinla, B (2000) "The Political Transition and the Future of Democracy in Nigeria," **Political Science Review**, 1, 1. **Idowu A.A** (2008), "Human Rights, Democracy and Development": The Nigerian Experience. Research Journal of International Studies-Issue 8 (November, 2008). Kormendi, R. and

Meguire, P. (1985): "Macroeconomic Determinants of Growth", Journal of Monetary Economics, 16, 141-63.

Potter, D. (2000) "Democratization, Good Governance and Development" in Allen, T. and Thomas, A. (eds) Poverty and development into the 21st Century, UK: The Open University and Oxford University Press.

Przeworski, A. and Limongi, F. (1993): "Political Regimes and Economic Growth", Journal of Economic Perspectives, 7, 141-63.

Sanusi Lamido Sanusi, (2010)," The Challenges of Democracy and Good Governance to Economic Development in Nigeria", a keynote address presented at the occasion of the investiture of His Excellency, Mr. Rotimi Amaechi, Governor, Rivers State, as Man-of the Year 2010.

The World Development Report (1991): "The challenge of Development", Oxford University Press.

Chadjipadelis Theodore (2002), Using statistics as a tool in political research. The case of Electoral behavior. ICOTS6, 2002.

The Economist (2018). Election forecasting Introducing our prediction model for America's mid-term elections, economist.com/midterms.

Herrin Steve (2012). The Science of Predicting Elcction. SASS-Polling and Election Prediction.

Shangodoyin, D. K. and Lasisi, T. A. (2011). The Role of Statistics in National development with reference to Botswana and Nigeria Statistical Systems. Journal Sustainable Development. Vol. 4(3).

Yatsko Viatcheslav (2017). Bayes Theorem and a Methodology for Prediction of US Presidential elections results. <https://www.researchgate.net/publication/321148606>

The World Bank (2001). World Development indicators.