

Dangers of Statistical Manipulation to National Development

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ABSTRACT

Everyone knows that with statistics, anything can be proven; hence it is very easy tempting to manipulate and misstate statistics to achieve this aim. As tempting as it may look, statistical manipulation has always proved dangerous and detrimental to economic and national development. Almost every country has at one time or another experienced politically or state sponsored data and statistical manipulation' thus falsifying the truth; which on the long affects nation's development. The study looked at the recent events in statistical manipulations and their attendant effects to national developments. With emphasis on data manipulations in Britain during Brexit referendum, manipulation of the 2016 US election and the several statistical manipulations in Nigeria and their dangers to national developments. After the review of these events we concluded that having statistical data in the wrong hands can be very absurd and poses great dangers to national development when manipulated.

Keywords: *Statistics, Statistical Manipulation, Economic Development, National Development, Nigeria*

1.0 INTRODUCTION

Statistics as a branch of mathematics has found use in every sphere of human life. Hence, has become the most applied mathematics because it permeates every human endeavour. Several researchers have defined statistics as the science of numbers but the most acceptable definition defines statistics as the science that deals with collection, classification analysis and interpretation of data. These data could be facts or events. The analysis uses the mathematical theories such as probability and aggregations to study the data and arrive at a conclusion (Hodges & Lehmann 2005; Kenney 2013).

Statistics have been divided into descriptive and inferential sub-groups. While descriptive statistics deals with data presentation and collection; it is usually the first point to statistical analysis. Inferential statistics refers to

the drawing of conclusions rightly from statistical analysis, often from the fallout of the descriptive statistics (Simonsohn, Simmons, & Nelson, 2015).

Statistics has found application in the field of science, technology, economy and in solving social problems.

One other area where statistics has found great use is in the area of national planning and development. For instance, census data cannot and will be meaningless without effective statistical analysis.

Statistics data collected by means of good statistical procedure and practices are essential tools for national development. For instance, gross domestic product (GDP) and other economic indicators such as the gross national income (GNI) and their indices are indicative of how an economy responds to policies. Statistics has also found extensive use in the field of agriculture, as it clearly helps for long-term planning in agricultural development.

While in the field of population studies, statistics indicates the need for government intervention. It is found more useful if the population is growing rapidly; this statistical discovery will help the government in planning against crises associated with rapid population growth such as housing, education and other social amenities. Furthermore, in the area of health, statistics has helped governments plan and develop better health policy and in the provision of medical responses (Linard, Gilbert, Snow, Noor, & Tatem, 2012).

Because of the usefulness of statistics in national and economic planning as it permeates every sphere of a nation's development, it is often manipulated. Therefore, statistical data manipulation has become a very serious issue over the years, as policy makers often manipulate statistics to achieve a predetermined objective. Ordinarily, statistics is meant to be understood easily but when manipulated it could be misleading and can trick the recipients in believing something other than reality.

This manipulation is sometimes referred to as misuse of statistics. This misuse may be deliberate or accidental, therefore, it is most times done by the perpetrator for his/her own personal gain and to mislead the target audience. This act is damaging as it tends to manipulate knowledge and can even lead to loss of lives like in the case of medical statistics.

Statistical manipulation amounts to lying with statistics. Such an act amounts to substitution of statistical correctness for personal gain. Statistical manipulation has been made easy due to the poor level of public statistical literacy. Therefore, manipulating statistics is dangerous as it misleads the public and may endanger national development.

1.2 AIM OF THE STUDY

The purpose of this study is to understand the dangers of statistical data manipulation to national development.

2.0 THEORETICAL BACKGROUND

Statistics opens to us a whole world of understanding that enables informed decision making. We all are faced with array of choices, hence, statistics enable us to choose appropriately. Understanding the role played by statistics in national development will enable us to use statistics aright, as it aids proper and accurate national and economic planning.

2.1 THEORY OF FALLACY OF DATA

A fallacy is flaw in a deductive argument which makes the argument invalid. This could be in the form of logic or data. For instance, sense-data is often flawed and most of the time fallacy, as they cannot be scientifically verified; Roderick Chisholm accepted the existence of empirical data but rejected sense-data for its non-existence (Scott & Usher 2010).

Fallacy of data which could occur in the form of fallacy of logic are usually found in explanations of things. This occurs when a person (people) manipulates the data to give false impression in order to mislead, whereas, the data given is a deviation from the reality (Obar, (2015). This is found very often in the case of missing data as these data that called missing are sometimes deliberately removed to mislead and achieve the person's aim.

2.2 THEORY OF MISUSE OF STATISTICS

Misuse of statistics is often seen when a statistical argument alludes a falsehood. It may sometimes be accidental but most of the times, it is deliberate; as scientists have knowingly fooled each other with statistics due to lack of proper knowledge of probability and other statistics theories.

Misuse of statistics leads to false facts which are very injurious to the progress of science, social, economic and political development. Huff, (1991) asserts that misuse of statistics amounts to lying with statistics, which he said to be dangerous and destructive to any sector or facet of life where such lies are directed to.

2.3 EFFECTS OF STATISTICS TO NATIONAL DEVELOPMENT

Statistics deals with our ability to comprehend the world around us. By this comprehension, it means it impacts on how we live our lives ranging from health to our wealth and helps us understand our local environment/communities and our planet better. Thus helping us to make the right choices.

Statistics is applied in decision making processes through the drawing of conclusions. Politicians and policy makers know this, hence, tap into it to tell people what they feel is right or wrong. It is used by governments to present facts and to back up their arguments (Doguwa, 1999).

Rulers and governments use statistics to work out how many people are under their domain, how much tax is to be collected from the people, what amenities to provide, which area is prone to what. With the help of statistics, governments can plan ahead and project the future (Jerven, 2013; Enrico, 2008)

Thus, without reliable, timely and accurate statistical records, it is difficult for any government, nation or organization to plan appropriately.

Because of its importance, the US government has criminalized misuse, falsification and manipulation of statistics data, as it tends to mislead the general public.

3. DANGERS OF STATISTICAL MANIPULATION

Everyone knows that with statistics, anything can be proven; hence it is very easy and tempting to manipulate and misstate statistics to achieve this aim. As tempting as it may look, statistical manipulation has always proved dangerous and detrimental to economic and national development, while it massages the ego of the manipulators at that material time. Almost every country has at one time or another experienced politically or state sponsored data and statistical manipulation to make the people accept the wrong thing, thus falsifying the truth; which on the long affects national development.

If statistical information is repeated enough overtime, people eventually begin to consider it to be true. For instance, during 2012 debate in the United States between the then President Barack Obama and Mitt Romney; Obama said “Over the last 30 months, we’ve seen 5 million jobs in the private sector created.” Unfortunately, 30 months from the time of this debate dated back to January 2010, while Obama took office in January 2009. But in reality, the US lost 5 million jobs during Obama’s first year and only a little over 125,000 jobs were created in the private sector. How misleading this can be.

In his book ‘Political Effect of Economic Data Manipulation: Evidence from Chinese Protests’, Handi Rita Li (2017) opined economic statistics broadening and data manipulation occur in every country and at different levels of governments. He asserts that government agencies falsify data with the aim of getting higher public evaluations of government performance; with the ultimate goal of maintaining public support for political gains. He studied Chinese GDP over the period 1995 to 2013 and discovered that the GDP data were always falsified, thus leading to negative correlation between the published GDP data and the actual economic growth.

3.1 A LOOK AT RECENT STATISTICAL MANIPULATIONS AND THEIR EFFECTS TO NATIONAL DEVELOPMENT

The entire world was awash with the news of Cambridge Analytica, a British consulting firm that combines data mining, data brokerage, and data analysis with strategic planning. The firm was recently accused of harvesting and manipulated data gotten from millions of Facebook users to sway the Brexit results. This manipulated Brexit results has affected the British economic development and led to loss of several millions of British

Pounds as companies and organisations began relocating after the exercise. Because of this discovery, many British citizens are calling for yet another referendum to re-vote again on the Brexit issue (Berghel, 2018; Common, 2018). If this call is hearkened to, it will lead to spending (loss) millions of pounds for a new referendum to be held. The price of data and statistical manipulation.

There is also the issue of the much contested Russia meddling in the 2016 US elections. As both the US Department of Homeland Security, FBI and CIA maintained that Russia meddled and interfered with the US 2016 election that saw Donald Trump emerging as the US President. While Trump and Russia have both denied this allegation, the public is of the view that this meddling may have been done by Russian firm without the knowledge of the Russian government. But be that as it may, this meddling is as a result of statistical and data manipulation by whoever it was to sway the results of the election in favour of a particular candidate (Ohlin, 2016; Snyder, 2016). This contention has created some economic and national uncertainties in the US polity, thus, once portraying the negative effect of statistical manipulation.

Nigeria has not been exempted from the misleading and dangers inherent in statistical manipulation. The Nigerian government under the current administration has reeled out data upon data on the number of jobs created by the Buhari administration and praised themselves to the high heavens, thereby misleading the public on the issue of job creation. Whereas in reality, more jobs have been lost. This job creation and job loss data manipulations have also affected the economic and national development as many unemployed have taken to crime. The danger in this, is that the government sees itself as working and creating wealth for the people whereas in real life situation, it is the opposite. This can be evidenced from the Nigerian Bureau of Statistics data that over four million Nigerians lost their jobs in 2017 alone as against 1,187,000 jobs created by the same administration so far.

Another area where statistical manipulation has been witnessed in the recent years is in the area of security in Nigeria. While the Nigerian government has manipulated and peddled statistics that less than 1000 persons have lost their lives to insecurity between January and June 2018, the Amnesty International published a more detailed data of killings within the same period which showed that over 1,813 lives have been lost. This, government did in order to make (mislead) the populace see the government as doing so much in securing their lives. The danger in this manipulation is that it has embolden the perpetrators and has adversely affected the economic development of Nigeria.

Furthermore, another area where statistical manipulation has affected Nigeria's development the most is in the area of census data. The country's census data has been so manipulated right from the colonial era up until this moment as alluded to by Prof. Kimse Okoko the former Pro-Chancellor to the University of Uyo (The Guardian, 21 May, 2017). Mimiko (2006) cited in Ezeah, Iyanda and Nwangu (2013:51) opined that *"Population census is one of the fundamental tasks of the government. It has become a backdrop for government's political, economic and social policy formation. Population census is one of the key planning strategies towards sustainable development and progress of a nation. It provides answers to; "How many we*

are” in terms of the total number of the people living in the entire nation; “Who are we” in terms of age, sex, education, occupation, economic activity and other crucial characteristics; as well as “where we live” in terms of housing and access to social amenities. The answer to these questions do provide numerical profile for planning and development within a nation by providing, expanding and sustaining the infrastructures that will enhance the quality of life of the people”. But unfortunately, Nigeria’s population census data has always been manipulated. This all important statistical manipulation (census data manipulation) has been the bane of Nigeria’s development. Because of this falsified census data, it has become difficult if not impossible for successive governments to better plan for Nigeria’s future and development.

From these study, we see how absurd statistical data can be in the wrong hands and the dangers it poses to national development when manipulated.

4. CONCLUSION

Statistics is vital to many aspects of the society. It has found great use in medical and biomedical diagnoses and research where it has helped in the early detection and control of recurrent and infectious diseases (epidemiological statistics) thereby improving the health sector development of the nation. Statistics has equally helped in the ability of the nation to improve on the safety of her roads and in the analyses of environmental and occupation hazards.

Furthermore, for Nigeria to be an effective functioning and robust economic and national development depends largely on the availability of timely, reliable and well interpreted economic and statistical data.

The profitability of any firm or organization is partly dependent on market research and quality control which are products of good statistical methods. The agricultural sector of the economy also benefits from sound statistical research and applications.

Government policies on health education, environment and other critical sectors, even as far as siting of projects and critical facilities depend on the availability of sound and reliable statistics on those sectors. The field of engineering and sciences also depends on the statistics of design and analysis of experiments.

Having seen that governments, national and societal development depend on sound and reliable statistics, it is therefore important that statistics practitioners know that they have a social obligation to desist from statistical and data manipulations for their personal gains or that of their pay masters but always present data and statistics in their true nature; making such statistical analyses reliable for informed decision making and national development.

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