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Mathematics Education in Restructuring the Current Impediment Affecting Economic Growth: Issues and Way Forward

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Abstract

Nigeria as developing nation needs mathematics at all walks of life that can consider restructuring of its economy very requisite and create innovative programmes through technology to improve the economic growth of the country. In this case, this paper examined the role of mathematics education in restructuring the current challenges affecting Nigeria economic growth. It presented six issues affecting the economy and through mathematics, the researchers pointed out all ways those highlighted issues can be resolved. From the way-forward enumerated, it was discovered that all government agency should organized empowerment programmes to young Nigerians with zeal of uplifting them from poverty and dependent. Through guiding it learner with basic scientific and technological skills that mathematics plays a center role in that Area.

Keywords: Impediment, Restructure, Economic Growth

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Introduction

The needs of Mathematics Education in Nigeria is not to be overemphasized. The ability of students in Mathematics gives birth to positivity of Development and eliminate shame of indulging into vices that is capable of rendering a society progress futile. Agbajor (2012) posited that where Mathematics Education is already faulty, the nation is faced with reduction in both scientific and technological input and output (Production). The researcher extracts further that, mathematics embedded in these two forces of development and it is the chief ingredients that make insignificant the great terrors given birth to by cruelty, oppression and civil war kidnapping which are product of unemployment. However, Education constitutes the major focus as it could be used for economic growth. As such, Mathematic education is been regarded very crucial in the basis of Nigeria Education today. Any attempt to refute it economic values in education and society, it pose further economic threat to any developing nation. Mathematics therefore, as a universally compulsory subject for every pupil/student at the Basic education, secondary and tertiary levels is dreaded despite its usefulness in science and technology which are instruments for national stability and meaningful development through effective security and peace (Yusuf, Haruna and Umoru, 2019). It became highly risky to avoid mathematics completely in our daily routine.

Kesiki and Bernard (2017) describes Mathematics as indispensable tool that is important in each and every seconds of Man's life. It is pertinent to note that the knowledge of mathematics can improve human standard of living that every individual needs for economic survival. In view of the foregoing, Dr. (Mrs.) Aina M.E constituted on her course contents of the Instructional techniques and Methods in Schools Mathematics a Postgraduate Course of the school of Education National Open University of Nigeria (NOUN), 2006 stated some important examples about the role of Mathematics in an individual's life follows; it is necessary for an individual be able to handle daily money transactions in which he is involved. He needs mathematics to be able to read public information meant to guide or instruct the populace, he needs mathematics to be able to budget his personal income accurately, it is needed for him to be able to plan and calculate his purchases when he goes shopping to determine his correct change. Mathematics is needed also in aspects of professionalism. In real sense, a business person should be able to keep simple financial accounts of his business transactions, a carpenter should be able to use appropriate instruments, a tailor needs mathematics to know how to measure to be

able to determine length of materials needed for various garment, even housewives needed mathematics knowledge to estimate quantity of food to cook for the household. All the mention roles can only be possible if the concerned person (learner) is endowed with Mathematical skills.

Recently, Nigeria is experiencing Economic Hardship in all areas of social life. Presently, it is difficult for any person living in our society who is mathematically illiterate to function and interact well in today's world because such person will severely be handicapped. Even Adams (2019) arrays that Nigeria economic potential is well recognized yet, it has realized very little of those potential. The researcher pointed further, it is no longer news that Nigeria's economy is experiencing total collapse and if nothing is done, to put the peg in the right spot something worse than what we are witnessing may soon be on sight. In view of the recent change, the idea of Mathematics is needed in our everyday communication and interaction to realize some effective measure to cope the challenges affecting development. As pointed by Wike (2016) that fiscal and monetary policies must work in tandem so as to impact positively on the country and the economy. Thus, skills of thinking and creativity that will enable any firm to plan feasibility study and run monetary affairs of their organization well, can be structured through the knowledge of Mathematics. It is believe that Mathematics inculcate one to think fast and make assumption that worth credibility.

Role of Mathematics Education in Restructuring Nigeria Economy

Mathematics Education can improve to Nigeria economy. Tracing from the historical perspective, mathematics was used in taking the daily stock of trading and farming activities, which has further moved in today's development that we directly or indirectly used figure to assign a certain function of the day. Some of the role mathematics education can play in restructuring Nigeria Economy are as follows:

1. Developing habits of critical thinking can help citizens to utilized available resources in their environment in order to improve economic growth. It is believe that the level of one thinking determine the level of their growth and contribution in their environment. It follows to say that, one thinking constitute to the growth of one territory.

2. Developing one skills of using Numbers and know Money values. The inability of an individual to count, sum or differentiate and know money values is as a result of poor knowledge of arithmetic which is mathematically in nature. Poor used of values either properties or money can contribute in decrease of the economy. As such, Mathematics Education can play significant role in structuring our economy through good knowledge of using numbers and knowing money values.
3. Developing the ability to differentiate relevant and irrelevant situations through logical reasoning. Many skills of logical reasoning make mathematician think better and make right judgment.

The Current Issues Affecting Nigeria Economy

Many Issues has been identified to be the impediment affecting growth of Economy in Nigeria. In fact, Tomas and Lauren (2020) recently believes that Nigeria is one of the largest economy in Sub-saharan Africa, though she relies majorly on her oil. In view of this, a lot of contention has been the topic of discussion in Nigeria. Among others are insecurity, terrorism and devaluation of Nigeria currency causing many of its citizens living in hunger and frustration as a result the economic is hampered. Generally, Nigeria plays a major political and economic role in Africa and wields influence regionally. Nigerians make up the largest African-born population in the United States, generating billions of dollars in annual remittance outflows. In this paper, the researcher attempts to view on how bad governance, insecurity, poor funding of education and increase in population among others have affected the economic system of Nigeria.

Bad Governance: Nigeria has been a multiparty democracy since 1999, after decades of military rule. It has been found that, corruption, ethno-religious tensions, discrimination against women and sexual minorities and government harassment of political opponents and journalists remain key challenges. Consequent to this adventurous effect, Adeosun (2016) saw that Nigeria was said to be technically recess, sick or heading to recession. Thus, similar impact are yet to be addressed even today. The implications are far reaching to an extent of putting many homes in distresses, growth of criminality and impact of hoodlum due to poor government policy.

Insecurity: Generally today, there are motivated political terrorism activities in the country. The existence of Boko Haram in the north-east part of Nigeria has rendered the economy of the region to stand still. In fact, the recent attack of IPOB in the south is building more grudges and fallacy state of actions in the regions, which has contributed too many loss of lives and properties. In a research study by Achumba, Ighomereho and Akpor-Robaro (2013) extracts that insecurity challenges in the country is enormous and complex, that would continue to be if the situation remains unabated. Even Obi (2015) pointed out that government had made efforts to tackle these challenges posed by insecurity and terrorism in the country and put an end to it, but the rate of insurgency and insecurity is still alarming.

Poor Funding of Education: In fact, been ignorant is a great problem affecting Nigeria economy. Many uneducated Nigerians that cannot read, record the major loss and interest of their businesses, and able to manage their resource are outcomes of poor existence of our education. It is pertinent to note that young Nigerians needed Education to foster their well-being and associate with other intellectual individuals both within and without Nigeria. Especially the recent advent of Entrepreneurship and other vocational Education. Young Nigerian needs to be trained and re-trained in order to compete in our recent developed world. In a report by World Bank (2019) it suggested that flexibility between general and vocational education particularly in higher education is imperative to enable workers to compete in changing labour markets where technology plays an increasingly important role. However, the situation is not viewed same in Nigeria. Poor payment of salaries and other institutional allowances have led many institutions to managed incompetent staffs and others engage on extra-responsibility for them to meet their family immediate needs. As such, students of higher institutions are not well trained, some end up cramming the curriculum that they were supposed to gain requisite knowledge about, that could have supported them live responsible in their society.

Increased in Population: Nigeria is one of the largest Populated country in Africa. As earlier stated by Tomas and Lauren (2020) it is not only economically the largest but in times of human population it also accounted for over 200 million of people in the country. Evenly, due to an increased in growth of population, many people are left insecure. Many of the populace lack job. Though, population growth has its benefits among others are; large consumer market for both domestic and foreign products which can lead to an inflow of foreign direct investment and increase in labour force which will increase output

and economic growth (Erdogan and Unver, 2015; Jha and Saritha, 2019). Unfortunately, the situation in Nigeria is different. Increasing in population has contributed to high level of Arm bandit, terrorism, mortality rate and extension of poverty. It follows to note that, Rural – Urban migration due to some reasons e.g. insecurity has titled the population growth in favourof urban centers with villages left to an ageing population and short of able-bodied people to farm and restructure the economy of the country. As such, it has led to congested city centres and development of urban slums.

Unemployment: The high level of unemployment in Nigeria is worrisome. Researcher like Longe (2017) posited that the quality of university graduates has been called to questioning as employers say they are not workplace ready. Yet, there number keep on increasing every year in Nigeria. In recent research by Oluyemi and Oluwaseyi (2020) in their work noted that most of the emigrants have attained a tertiary level of education. The writers further contributed that these are powerful indications showing that people who should be involved in enhancing the country have abandoned the nation and used their skills and intellect to aid the development of other countries.

However, some graduates lack skills and idea to create initiative and practice the profession as learnt in their various institutions. Prior to these challenges, many graduates have been victims of other social vices and assaults that landed some to continue their career in Prisons. When that continues, it is believed that the growth of Nigeria Economy will be thrown at arm's length. The growth of responsible people to advance Nigeria economy will not be there.

Currency Fluctuation: The value of the domestic currency in the foreign exchange market is a consideration for central banks when they set monetary policy. Over the recent years, Nigeria currency is eventually weakening which has cause the trade deficit to widen further. Thus, it has contributed many economic issues which many homes are left in poverty.

Way Forward Insolving Current Issues Affecting Nigeria Economy

Generally, mathematics knowledge is said to equipped it learner and make them responsible individual in their society. A report by Sunday, Akanmu and Fajemidagba (2014) hinted that any country wishing to be within the developed nations must pay due attention to the teaching and learning of mathematics in its schools. In this case,

mathematics education can tackle the highlighted current issues affecting economic growth in the following ways:

1. Government Agency must equipped their youths on various scientific, multi-cultural diversity, Agricultural policy and other Human resources. In this motive, there is need to largely have basic skills and those individuals in the system who think fast, create and initiate ideas that will promote the nation on aforementioned areas should be trained which mathematics can critically assist in that process.
2. Some reasons behind terrorism, rising in level of hoodlums, thugs, kidnapping, and ethno-religious crises among other factors are promoted by many individuals who lack jobs and good numbers of them also lack sound mind to think and build on necessary ideas that would assist them to be self-reliant and promote positive idea in their area. Thus, mathematician are known to be careful individuals. Kesiki and Bernard (2017) pointed in their book titled "Conquering the Monster in Mathematics" that mathematicians are generally known to be careful people. The authors advises that parents are challenged to encourage their children to have interest in the study of mathematics.
3. Educationally, mathematics can improve in our learning. Many of the problems faced in Nigeria educational system today is poor funding of its institutions. However, when students understand the essence and values of what they were supposed to be trained in school, the weaknesses of the system becomes less concerned. It means that, with the knowledge of mathematics students begin to think, create and solve immediate problems of their environments and that is greatly the need of Education.
4. Increasing population is possible to be maintained through mathematics. Birth rate of a country can be controlled. When the total population is captured, the idea of controlling it is easy. Mathematically tools are used to assigned and predict the rate of birth. Though, it could be difficult to predict the rate of mortality but one can predict how lives would be lost at a certain period of time. Evenly, a developing country like Nigeria needs it citizens to have knowledge of mathematics in order to know the effect of increasing population and how it can be manage.

5. Mathematics make it learner think and have good reasoning skills. It reflects that, one who is able to solve his or her daily problems have the power to compete and change the environment around. In the contribution of Kesiki and Bernard (2017) revealed that Mathematics is one of the deepest and most powerful expressions of pure human reason and at the same time the most fundamental resources for description and of the experimental world. One who have the basic knowledge of mathematics gives him or her the understanding to make right judgment and decide on their future career. According to Ekwueme and Ali (2012) extracts that the importance of mathematics has been long recognized all over the world as a basis for understanding other subjects. It follows to conclude that mathematics can give it learner the knowledge of choosing a better and quality jobs for themselves in order to be responsible.
6. Poor knowledge of numbers and manipulations comes as a result of poor image of mathematical skills. The fluctuation of currency is not known to many Nigerians. In fact, some people limit their understanding to the common financial situations around their territory without minding the effects to their environment. In recent time, the exchange rate of 1 USD is between N411.70 to N420 which was not like that in the past 5 years. There is need to have mathematical skills to be able to understand some of the relations between Nigeria currency and other countries. It helps in running daily marketing affairs.

Conclusion

Mathematics is needed everywhere. Despite the poor image accorded by learners of Mathematics, yet, we still need to have knowledge of Mathematics to run our daily affairs. This knowledge could be formally or informally. It can be formally acquire in schools in order to assist one think, create and manipulate situations around his or her environment. In the other hand, it can also be acquire informally through one daily involvement in his environment. Of course, one count, add and even subtract in daily walks of life. Which must not be learnt in school. In the basis of this point. It is concluded in this paper that the highlighted issues contributed by the researcher can be better improved with the knowledge of Mathematics.

Recommendations

In order to solve the current issues affecting Nigeria Economy, the Following recommendations were made;

1. Government at all levels should intensify their effort in sponsoring young Nigerians to attain tertiary Education in the related fields of Mathematics in order to promote more idea and knowledge that will guide them live in the society.
2. Government should sponsor Mathematics teachers to conferences, workshops, and seminars to upgrade their knowledge of Mathematics. It is believe that Mathematics is capable of settling disputes, financial instability, insecurity among other elements with the help of selected topics like logical reasoning, probability among others. All this cannot be achieved without having good understanding of Mathematics.
3. All government agency should organized empowerment programmes to young Nigerians with zeal of uplifting them from poverty and dependent. Through guiding it learner with basic scientific and technological skills that mathematics plays a center role in that Area.

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