

Road Map to Economic Recovery in Nigeria: The Role of Higher Education

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Abstract.

Economic downturn is a recurrent business cycle phenomenon in Nigeria. Nigeria technically got into another economic recession in the second quarter of 2016 when the Gross Domestic Product declined by 2.06 percent. The annual inflation rate also rose to 17.1 percent during the same period. Several measures were proffered as a way out of the recession. This study, examines the role of higher education institutions in attaining economic recovery in Nigeria. The study focused on two major strands of higher education sector's contribution to economic recovery--the entrepreneurship, employability skills and research and government fiscal policy on higher education. Interpretative survey of literature and lessons from international experiences were considered. Outcome-based education and research will lead to innovative ideas thus reducing unemployment. Increased government expenditure in funding of higher education could be a fiscal measure for stimulating demand and aggregate spending in the economy. Conclusively, this study argues that the role of higher education in economic recovery is a long-term measure, rather than a short-term. Therefore, policies towards revamping the higher education in Nigeria are necessary for sustainable economic recovery.

Key Words: Economic Recovery, Higher Education, entrepreneurship, Fiscal Policy.

Introduction

Higher education sector plays a significant role in sustainable economic recovery from recession in any economy (Zumeta, 2010). The Education sector of an economy contributes to manpower development, employment creation and export earnings. An important form of investment in human capital is through higher education (Tilak, 2003; Varghese 2010). Thus, the role of higher education in economic recovery cannot be overemphasised.

The immediate impact of economic recession on higher institutions is usually fluid. The effects take few years before it is fully felt. Aside the gradual fall in the availability of funds

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for capital projects in the sector, students' enrolment declines in some instance, especially private University, because of the difficulties in tuition payment. The quality of education nosedives when there is paucity of funds. The Nigerian education sector has been underfunded over the years (Akinyemi and Bassey (2012); Famurewa, (2014); Gambo, Fasanmi (2019). The recent economic recession further exacerbated the challenges in the sector.

Higher education sector plays a significant role in sustainable economic recovery from recession. Education sector contributes to manpower development, employment creation and export earnings. This is much more important during economic contractions. The \$787 billion American Recovery and Reinvestment Act of 2009 dedicate more than \$100 billion for K-12 and higher education. By spending strategically, colleges and universities have an unprecedented opportunity to contribute to America's short-term economic recovery and long-term competitiveness (Zumeta, 2010). Therefore; to what extent does the downturn in economic activities impact negatively on Higher education? What role can higher education sector play in economic recovery processes in the long run? This forms the thrust and main focus of this present study.

Stylised Facts on Nigeria's Education Sector Funding and Economy Stability

Nigeria has one of the most rapidly growing populations in the continent of Africa with more than 30 million people that are mostly students or people in the school category. Nigeria's literacy rate is estimated at 61 percent with a large number of out-of-school children. The country spends less than 9 percent of its yearly budget on education. This is a far cry from 26 percent of national budget recommended by the United Nations as a benchmark for meeting the rising demand for education globally. The 2017 budget indicated that N448.01 billion was allocated to the education sector out of the N7.30 trillion of the budgets. This represents 6 percent of the total budget. In addition, while N398.01 billion was earmarked for recurrent expenditure, N50 billion was allocated for capital projects. The 2017 Federal government budget to education rose marginally from N367.73 billion, a 6 percent of total budget in 2016 which was a decrease from the previous year. Figure 1 shows the level of decline in budgetary allocation to education in 2016 when compared with the past four years. Economic recession could be one of the reasons for this development in the years under consideration.

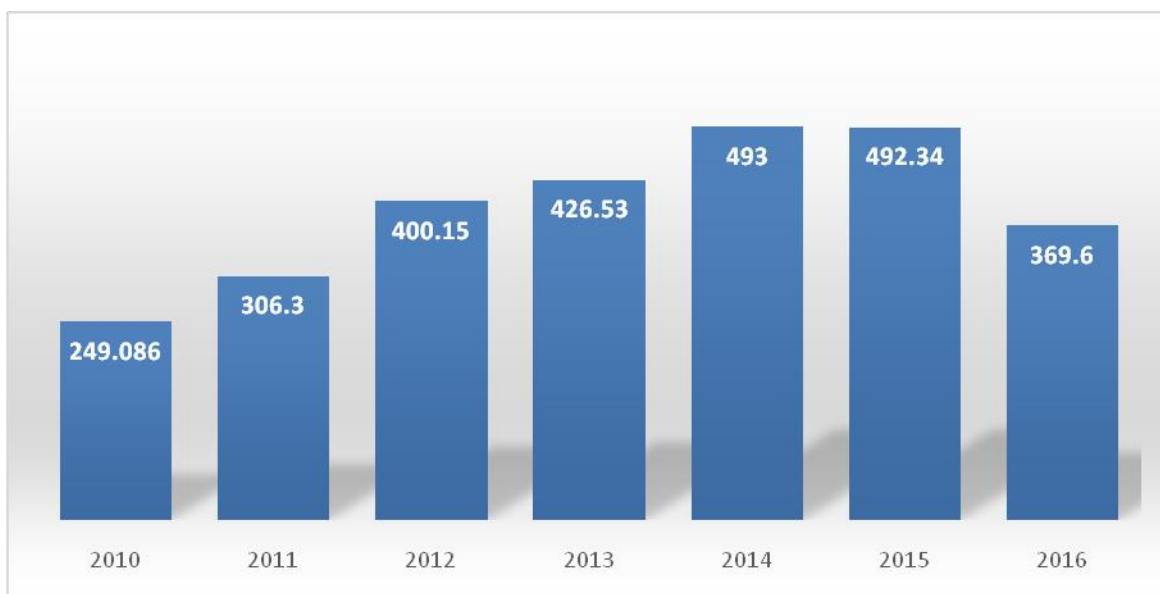


Figure 1: Nigeria Budgetary Allocation to the Education Sector (N' billion).
Source: Authors' Computation

The allocation to education in the 2017 budget in Nigeria, when compared with some other countries in Africa has left much to be desired. While Ghana allocates as high as 31 percent, Cote d'Ivoire and South Africa allocates 30 percent and 27 percent respectively to the education sector (See Figure 2). Nigeria's budgetary allocation was less than 10 percent for the year under review. The implication of the poor budgetary allocation includes inadequate infrastructure in schools, inadequate qualified teachers, increasing rate of unemployment, retarded growth and perhaps, economic recession among others.

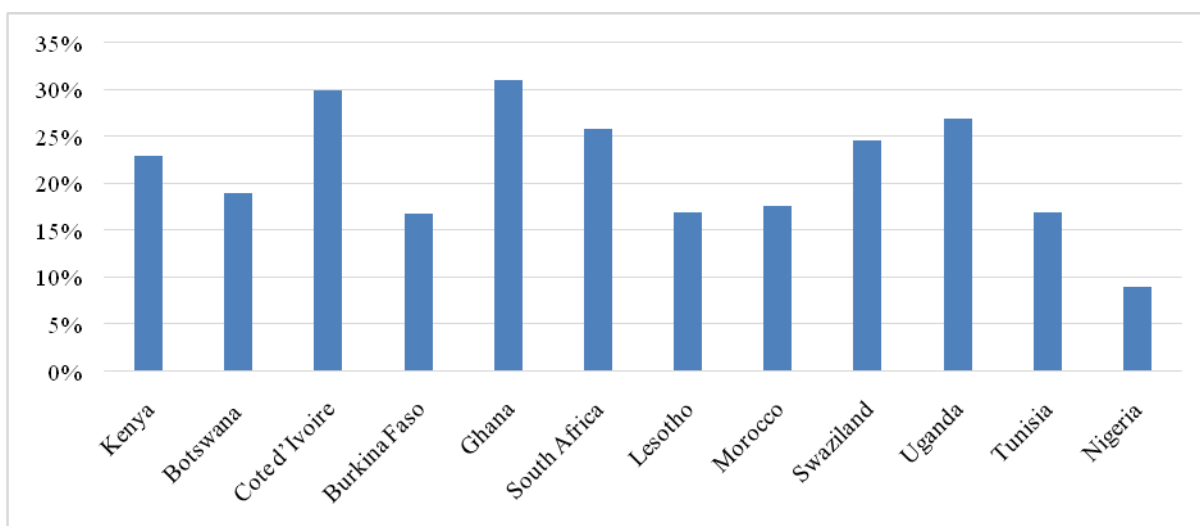


Figure 2: 2017 Budget Allocations to Education in Some Selected African Countries. Source: Authors' computation

Nigeria drifted into recession in 2016 after recording negative growth rate in GDP for two consecutive quarters. This equally corresponds to the period when there were palpable concerns on the drifting of the education sector, especially decline in higher education

infrastructures. Against this backdrop, this suggests that a bi-directional causality could exist between education sector growth and economic recession. Realising the role of education in economic recovery, one of the government's proposed panacea in her Economic Recovery and Growth Plan (ERGP) strategic initiative in reviving the economy between 2017 and 2020 includes an inclusive growth plan which invests in the citizenry through health, education and youth employment schemes among others. (ERGP, 2017)

Review of Related Literature

Pouris and Inglesi-Lotz (2014), identifies four major contributions of tertiary education to the social and economic development of a country. First, it helps in human capital formation; Second, broad knowledge bases through research; Third, dissemination and application of knowledge and research output, and fourth, the generational transmission of knowledge. This shows the significance of investment in human capital in accelerating sustainable development. In addition, the research output from the higher institutions has contributed in no small measure to solving some of the societal problems. There is equally the multiplier effect of the indirect effects of higher institutions expenditures in stimulating aggregate demand in the economy. The payment of emoluments to staff has induced ripple effects of increased employees' expenditure.

Bashir, Herath and Gebremedhin (2012) observed that human capital makes substantial contribution to economic and income growth. Analysing the relationship between higher education growth and economic growth in West Virginia, a set of simultaneous equations with three endogenous variables showed that increase in income and education expansion are positively related, while education growth reduces population growth in West Virginia.

Similarly, Gyimah-Brempong, Paddison, and Mitiku (2006) focused on investigating the effects of higher education through human capital on economic growth in African countries based on a modified neoclassical growth equation, together with a dynamic panel estimator for data between 1960 and 2000. It was discovered that all levels of education, including higher education have positive and statistically significant effect on the growth rate of per capita income in African countries. The growth elasticity of higher education human capital is about 0.09, which is twice as large as the growth impact of the physical investment.

However, Hanushek (2016) opined that the general proposition that expanded University education absorbs more graduates leading to increased economic growth has been invalidated by empirical evidence. The underlining intuition lies in the differences in 'knowledge capital

of the countries' which account for the disparity in economic growth across countries. Less cognitive skill with additional years of schooling hampers economic growth.

In addition, establishing the relationship between human capital-growth linkage with special reference to College and University training, the study suggested that one does not get better University products without investing in higher education. But one gets better products if the University impacts students with stronger skills.

Adamu (2015) posited that Nigerians have always realized and emphasized the fact that education is the singular factor that brings about national development. The central goal of University education is to prepare skilled manpower for productive employment. Such employment can be a paid or a self-employed type. The study examined the problem militating against University education, its implications for economic development. The world is changing as a result of technological and economic advancements. This change has created peculiar problems and challenges which most Nigerian graduates cannot cope with, thus, making them not suitable for employment. The author observed that there is urgent need to get Nigerian graduates trained on entrepreneurship skills and knowledge through well planned and executed entrepreneurship education mainly by re-positioning the University education.

Pouris and Inglesi-Lotz (2014) examined the direct and indirect contributions of higher education institutions in South Africa on certain macroeconomic indicators such as Gross Domestic Product (GDP) and employment, with the ultimate purpose of establishing their importance on the economy. The study shows that funding of these institutions is crucial in order for them to continuously produce outcomes in terms of research and skilled graduates. In comparing the South African research and development (R&D) expenditure with international best practices, the study argued that additional support for new funding formula for Universities is necessary.

Higher education systems, in many developing as well as some developed countries, including Asia and the Pacific, are also characterised with a continuing crisis, overcrowding, inadequate staffing, deteriorating standards and quality, poor physical facilities, insufficient equipments and declining public budgets (Tilak, 2003). Thus, nations which have not expanded its higher education system reasonably well could be constrained in terms of achieving higher level of economic development.

Varghese (2010) analysed the impact of the global economic crisis on higher education. The author observed that public policy responses varied among nations. While some governments increased budget through external borrowing, some others cut budgets, and students' scholarships and bursaries were reduced. However, the study found out that despite the varied policies which affects the different sectors of the economy, higher education enrolments increased during the same period of the 2008 global economic downturn. The study argued that investment in higher education, research and development is important for economic competitiveness. The author posited that the inclusion of the higher education as part of the economic recovery plans and stimulus measures indicate its significance on economic growth.

A study by Wright, Ramdin, Vásquez-Colina (2013) indicated that the United States experienced six economic recessions between 1970 and 2009. The impact of economic recession on higher education enrolment was examined using seasonally adjusted data from the U.S. Census and the U.S. Department of Labor (Bureau of Labor Statistics). Employing One-way Analysis of Variance, Factorial Anova, and T-tests revealed that overall enrolments during recession years were not statistically different. Rather, higher education enrolments registered a steady rise over the four decades. However, enrolments differed by gender and ethnicity. In sum, the study indicated that recessions between 1970 and 2009 had very little restraining power on U.S. higher education enrolments.

Higher education contributes to economic growth, through knowledge production and human capital development. The immediate effect of economic recession is the fall in the fiscal spending on education. This is often the aftermath of falling gross domestic product. Consequently, this leads to unemployment which in turn also affects household's expenditure pattern in general and more specifically expenditure on education. Thus this study therefore seeks to delineate the role of higher education in Nigeria's economic recovery plan.

Theoretical Framework and Methodology

This study is hinged on the neoclassical theory of growth (Lucas, 1988) with emphasis on human capital and signalling theories. Human capital theory posited that investments in human capital can be quantitatively measured on the bases of the contribution in terms of economic value added by labour. This theory explains the causal relationship between investment in education and output or economic growth. Intuitively, the human capital theory argues that education endows the productivity of labour which in turn, impacts on economic growth. Signalling theory suggests the idea of education reflecting the inherent human capital

which leads to increased productivity in the economy. Education signalled an inherent abilities or potential for higher productivity of labour as a factor input in the production function. The basic assumptions of these theories are the fact that investment in education leads to higher productivity and earnings. This study therefore, focuses on the human capital accumulation through education and learning by doing in higher or tertiary level of education. Interpretative survey of the extant literature and comparative analysis of international experiences of selected developed countries in revitalizing their economy through the instrument of higher education were employed.

Interpretative Survey of the Literature and Comparative Analysis of International Experiences

The deductions from the literature suggest a number of explanations on the relationship between higher education and economic recovery from recession. First, on the impact of economic recession on higher education, economic recession does not necessarily reduce students' enrolment into tertiary institutions of learning. This is plausible in Nigeria because of the burgeoning population in the country. There is greater number of potential candidates waiting to be admitted for higher studies compared to the fewer spaces available due to limited infrastructures. Second, government expenditures reduce further during recession. The consequence is that infrastructures that are available become poorer and students' teaching and learning environment decline. Research output deteriorates and innovations are hampered. Unemployment is equally likely to be exacerbated.

On the flip side, however, policies geared towards revamping the education sector, especially the tertiary institutions could have a multiplier effects on repositioning the economy on the path of growth again. Government deliberate funding of higher education does not only bring about economic recovery, but also reduces the economic fluctuations which keeps the system on the path of sustainable development. Increased fiscal spending on educational infrastructures spurs aggregate demand. Infrastructural amenities provide the enabling environment for learning and development of skilled manpower for increased productivity. Entrepreneurship and employability skills will provide for economic diversification in the long run. This will further reduce the economic fluctuations which are occasioned as a result of the vagaries of global politics and events.

In addition, outcome-based education and research lead to innovative ideas thus increased employment. New products are developed and markets are expanded both locally and

internationally. Government fiscal policy on higher education could have rippled effects on the economy in the long run.

A cursory examination of tertiary gross enrolment ratio across the regions as indicated in Figure 3 shows that Sub-Saharan Africa is the region with the least performance over the period under review. Even though the population in Sub-Saharan Africa have been increasing overtime, the capacity to meet the increasing demand for higher education in a number of Africa countries is limited. It is a gross dismal to record less than 5 percent in tertiary enrolment when compared with Europe and Central Asia (High income countries) with increased enrolment of about 49 percent and over 60 percent respectively over the same period.

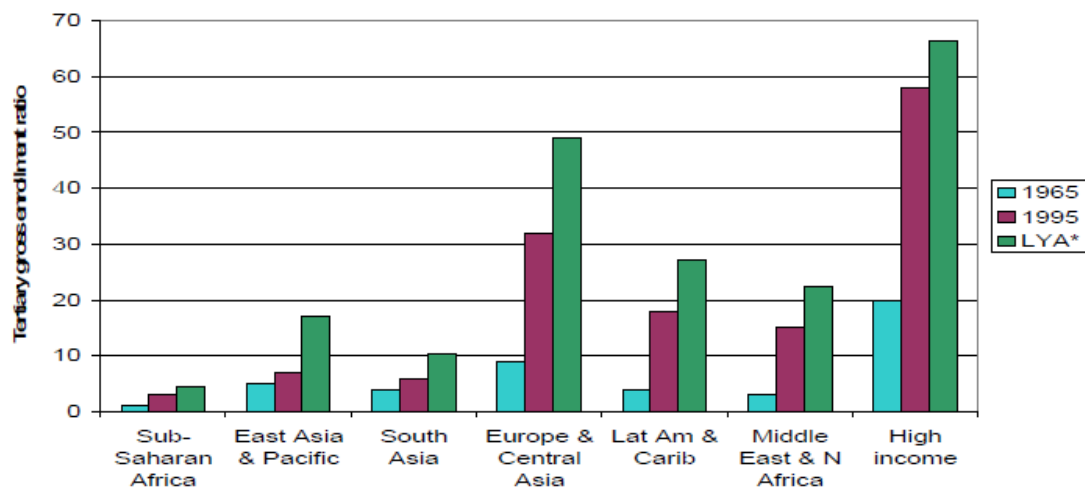


Figure 3: Regional Tertiary Enrolment Ratio.

* LYA- latest year available data used. Source: Adopted from Bloom D., Canning D., and Chan K. (2006), Higher education and Economic development in Africa. Human Development Sector, Africa Region. Harvard University/World Bank (AFTHD)

Figure 4 shows that most of the African countries lagged behind in the measure of knowledge economic index. Nigeria with some countries such as Tanzania and Cameroon had an index less than two out of the possible ten scores.

A few of randomly selected countries around the globe with evidences of improved tertiary education contributing to economic development were considered with the aim of delineating the lessons for the developing countries and specifically, the role of higher education in economic recession experience in Nigeria.

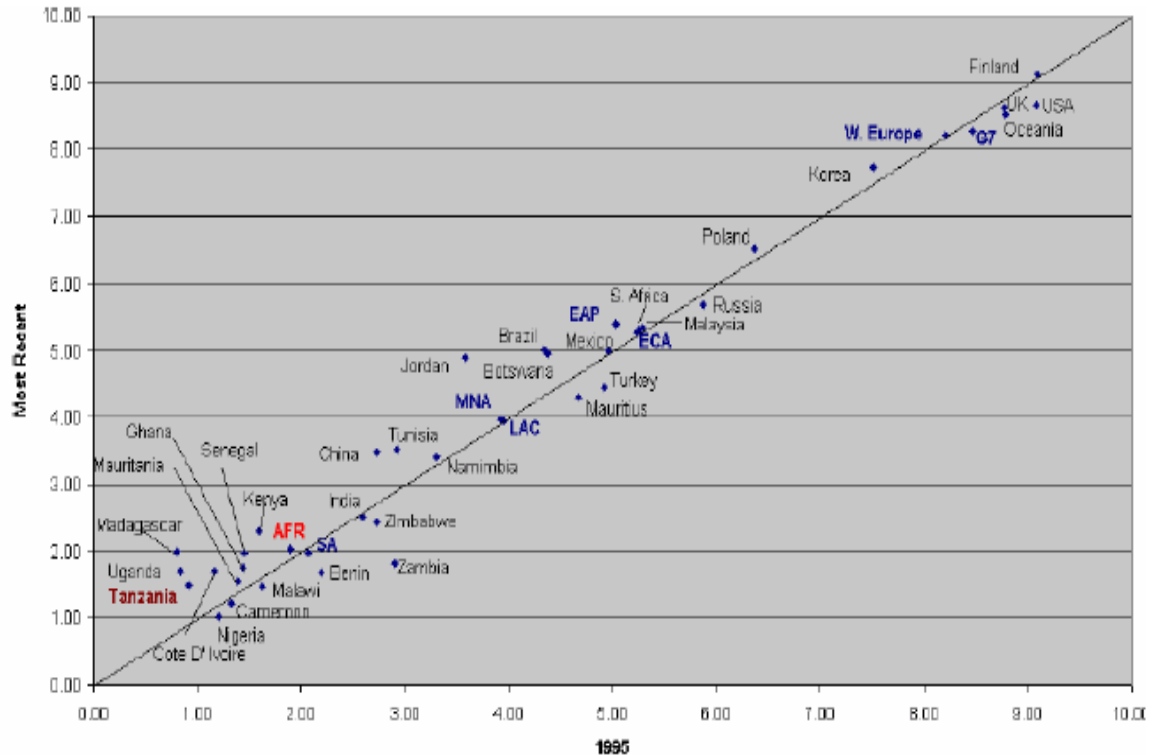


Figure 4: Knowledge Economy Index

Source: Adopted from Bloom D., Canning D., and Chan K. (2006), Higher education and Economic development in Africa. Human Development Sector, Africa Region. Harvard University/World Bank (AFTHD)

Countries which are above the 45 degree line have improved their scores lately (Figure 4). It will be observed that countries such as the USA, UK and Finland have been able to record 9 to 9.5 points out of the possible score. To a large extent, these are countries that the resultant effects of investment in higher education have contributed immensely to their economic growth.

Of particular interest in comparing some developed economies is the education system in Japan and the aftermath of war. The modern educational system in Japan was established in 1872. Education has contributed immensely to the development of the Japanese economy. This is in spite of the huge loss of wealth through war. The economic recovery of the country has been attributed largely to pre-war educational system that enhances the requisite technical skills and know-how. Notably, Japan's public investment in education increased even during economic downturn.

Enforcement of a six year compulsory education helped in the developemnt of both light and heavy industries. This enforcement, has led to increase in national income which has also resulted in high rate of enrolment in institutions of higher learning. Productivity and

production has also increased through gainfully employed labour force. The rise in per capita income of labour in Japan, shows an increase in students enrolment in secondary schools and by extension in higher institutions. Similarly, an interesting dimension of Japan's economy dynamics is the subject of morals or virtues taught in schools. Basically, the focus of morals is in diligence and thrift. Wasteful spending was discouraged. National savings were promoted (Japan *OECD Indicators*)

Japanese economy grew. Investment in education through public education spending was on the increase. Spending from private organisations on education supported government efforts. Consequently, the expansion in industrial and economic growth overtime was aided by the quality of human and physically capital factors of production. Japan also has 46 percent of her citizen in the age bracket of 25-64 year-olds who have attained tertiary education in 2011, compared to 34 percent in 2000 (Japan *OECD Indicators*)

Another case in point is the dramatic income growth that has occurred in South Korea with about \$3,000 per capita in the 1960s to \$15, 000 in 2002. This development has been adduced to the shift of the country from being an input-driven economy to a knowledge-based economy. As such, much of its economic growth was driven by expanded knowledge. Services which accounted for 47 percent of South Korea GDP in 1960 rose to 63 percent by 2002. Agricultural sector fell from 36 percent of the GDP to 4 percent in the same period under review. South Korea invests largely in education. A large percentage of the GDP is invested in higher education software and research. The World Bank knowledge economy index shows that the country has positive improvement in score over the last few decades (Grubb, Sweet, Gallagher and Tuomi, 2009).

South Korea's investment in education cut across all levels from primary to tertiary education. Full primary education enrolment has been achieved since 1970, and secondary enrolment which was 40 percent in 1970, became universal by 1997. Tertiary education played a vital role in Korea's knowledge development strategy (Grubb, Sweet, Gallagher and Tuomi, 2009).

Moreover, in 1999 the government adopted the "Brain Korea 21" concept. This project promotes provision of funds for research purposes for institutions and graduate students, by helping to build world-class research Universities in the country. Tertiary enrolment has increased overtime with the private sector also playing an active role. Research output has improved dramatically. South Korea produced 234 published academic papers across the core

Sciences and Social Sciences in 1981. By 1995 the record has hit 5,000. South Korea knowledge-based economy which was promoted by its higher education system has helped significantly in economic growth (Moon and Kim, 2001; (Grubb, Sweet, Gallagher and Tuomi, 2009).

The 'New Growth Plan' of the South African government in 2010 indicates the importance of higher education in the strategic plan of the government in making the country the hub of higher education in the continent of Africa and increasing her economic growth potentials Pouris and Inglesi-Lotz, (2014) opined that 'New Growth Plan' of the South African government was to grant increased support to research and development (R and D) as well as tertiary education. In sum, the thrust of the policy which has improved the output of higher education (HE) in South Africa include raising private and public expenditures on Research and Development from 0.93 percent in 2007/08 to 1.5 percent and 2 percent in 2014 and 2018 respectively. The plan aimed at increasing patents to more than 200 beyond 2014 from 91 in 2008. In addition, the number of professionals and technicians were targeted to be increased drastically. These are few of the strategy which has helped to keep the South Africa economy on the path of economic growth. It is important to note that such clear objectives which increases the role of the HE in the economy, will record a positive and progressive growth of the Gross Domestic Product through the multiplier effects of the output from the tertiary education (Pouris and Inglesi-Lotz, 2014).

Britain and the United States of American experience economic recession aside the 1930 and subsequent ones. Specifically, in 2007 and 2009 the economies were in recession. Evidence suggests that one of the veritable medium employed by the two countries was to provide an economic stimulus through government fiscal policy. The HE benefited from the government package because of the need to help reduce unemployment through improving the skills of graduate for the labour market. \$100 billion of the \$787 billion American Recovery and Reinvestment Act of 2009 was dedicated to K-12 and higher education. The goal was to stimulate the sector to be more competitive and contributes to the short-term economic recovery plan. UK gives priority to her education sector. The private and public funding of the higher education has also contributed positively to the economy.

Lessons and Implications for Nigeria Economic Recovery and Growth

The government Economic Recovery and Growth Plan (ERGP) is a measure to bring Nigeria out of the economic recession. This was largely occasioned by the oil price falling sharply from about \$112 a barrel in 2014 to less than \$50 in 2016. Since the economy is oil

dependent, the fall in crude oil revenue negatively affected the country. One of the key aims of the plan is to invest in the Nigerian people through a guarantee improved human capital development. This suggests the realization of the significance of education, especially higher education in economic recovery in the interim. Thus, Economic Recovery and Growth Plan is targeted at promoting economic diversification via ensuring sustainable growth, building a globally competitive economy, and progressively investing in human capital development.

The lesson drawn from the efforts of countries around the globe, suggests that the efforts of the government to revive the Nigerian economy will require adequate funding of the education sector. This will help to provide quality human capital for national development. The current status of the Nigeria best University among the worlds' for the past half decades, shows it is the 25th in Africa and the 2004th in the world (Webometrics Statistics, 2016). Equipped labour force with requisite knowledge based education and entrepreneurial skills are required for new businesses and industries to develop the varied sectors of the economy. Thus, education needs to be accessible to the citizen and practical technical skills developed in higher institutions if the economy will be on the path to sustainable economic recovery.

To achieve economic recovery through higher education with the established linkages between education and economic growth from developed economies examined, increased funding is a necessary but not sufficient condition. While increased spending through expansionary fiscal policy is important, entrepreneurial and employability skills are germane. Higher education training must be linked with job creation and productivity. Innovation and creative ideas will result into job creation and reduction in unemployment rate.

Higher education system in Nigeria will require retooling and overhauling of the current curriculum not only in our higher institutions, but also in the secondary and primary educational levels. A 21st Century generation must be taught a 21st Century syllabus. Linking education to employment and entrepreneurial skills are essential in the decades ahead if economic recovery will be sustained and relapsing into economic recession avoided.

World class research facilities will aid effective partnerships between higher education research and industry collaboration. This will significantly improve the quality of research output and creation of jobs. Nurtured research partnerships between nation's research Universities and industrial sector or key sectors of the economy should be encouraged in the development of materials, design, and energy. In addition, government could invest ab initio,

in the training and development of staff in the higher education. This is aside the need to provide a commensurable emolument in order to attract and retain the best academics for both teaching and research.

Commercialization of research findings is another measure for economic recovery and growth. The institutions of higher learning could proffer solution to societal problem through research and thus commercialised the solution into a large scale production for goods and services. Research commercialisation would lead to synergy of the gown and town in collaboration with the government efforts. Consultancy and professional training could emanate from the higher institutions which will drive inclusive and diversified economic growth in the country.

There is need for private support in government efforts in revamping the economic slowdown through private investment in education at all levels. Citizens and private organizations should be encouraged to invest in the common good of all. Scholarships, donations and funding of projects in the higher institutions will invariably improve the economy in the long run.

Conclusion

This study underscored the importance of education, especially higher education in the process of economic recovery in the light of economic recession. The path to economic recovery can be birthed with new educational focus that is hinged on the present and future realities. Educational policies geared towards fostering technical skills which increases labour market participation and productivity is necessary. Continuous investment in education by individuals and the government is critical to economic recovery and sustainable economic growth in the long run. The poor budgetary allocation to higher education should be reversed to a gradual and sustained increased in budget allocation to the education sector.

The government medium term economic recovery plan is a step in the right direction. The policy should be pursued rigorously and efforts should be made to ensure that investment in human capital development is given its right place and priority. Outcome based higher education will not only put the nation on the path to economic recovery in the short and medium term, but also, a veritable post-recession measures for holistic and inclusive national development in the long run.

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