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INVESTMENT IN HUMAN CAPITAL FOR INCLUSIVE GROWTH: LIMITATA OR ILLIMITATA ACCESSUM TO SUSTAINABLE DEVELOPMENT

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INVESTMENT IN HUMAN CAPITAL FOR INCLUSIVE GROWTH: LIMITATA OR ILLIMITATA ACCESSUM TO SUSTAINABLE DEVELOPMENT?

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Preamble

Mr. Vice-Chancellor Sir, distinguished ladies and gentlemen, I give God Almighty the Glory, Honour and Adoration for making today a reality for me. Indeed, he is a faithful God, ever faithful, ever sure. He's been my refuge and strength, my very present help in time of trouble. It is with a high sense of humility and mixed feelings that I stand before this great audience to present the 12th Inaugural Lecture in this great citadel of learning. I remember very well that when I started thinking about the topic that will be chosen for my inaugural lecture, I kept on meditating on the main focus of my research over twenty-seven years of tertiary education teaching and research experience. I realized my research works have been based mainly on economic growth and development issues, with much emphasis on human capital development. One early morning, as I got to work, this topic of today came to my mind severally and I quickly picked a notepad and wrote it down. Furthermore, it occurred to me after assessing the topic severally that I can also "spice up" the title by inserting two Latin/ French words in between the topic in order to keep my audience in suspense and more importantly, explicitly drive home my thoughts. So, I proceeded to insert these three Latin words whose meaning will be unravelled as this lecture proceeds. Furthermore, I kept on moderating/adjusting the topic severally as the Holy Spirit kept leading me. Afterwards, I had this great peace within me that the topic I have chosen is what the Lord will have me base my inaugural lecture on. Of a truth we serve a faithful God, the owner of all Wisdom.

Mr Vice-Chancellor Sir, through this lecture, my intension is to clarify succinctly and clearly whether human capital development via its integrals, drives a limited or unlimited access (limitata or illimitata accessum) to inclusive growth and sustainable development of any nation. I have no doubt in my mind that the content of this lecture will flow perfectly with the chosen title and by His grace at the end of this lecture, I'll have succeeded in carrying along my audience on this special occasion.

Introduction

Knowledge has become the most important factor for economic development in the 21st Century. Through its capacity to augment productivity, it increasingly constitutes the foundation of a country's competitive advantage. Education plays a great and significant role in the economy of a nation. Thus, educational expenditure is expected to constitute a large chunk of the nation's budgetary allocation. In this regard, education has always been seen as playing an important role in furthering economic and particularly human capital development of a nation. Additionally, education is one of the decisive factors in life chances, equal opportunity and advancements. Besides, it is the most powerful instrument for developing and empowering the citizens to master their social and cultural environment and compete for survival. It increases individual's chances for employment in the labour market and allows them to reap pecuniary and non-pecuniary returns and gives them opportunity for job mobility.

However, most of the developing economies, although conscious of the transformation, which education brings, are yet to reap its full potential. This is because the capacity to generate and harness knowledge in the pursuit of sustainable development and improved living standards has not been fully explored. In the Organization for Economic Cooperation and Development (OECD) countries, where investments in the intangibles that make up the knowledge base of a country (e.g., research and development - R&D, higher education, computer software, patents) are equalling or even exceeding

investments in physical equipment, this change is most evident. Advanced economies enjoy the fruits of a self-promoting cycle in which the benefits of education help produce the wealth and public support needed to enable continued investments. In contrast, many developing countries have neither articulated a development strategy linking knowledge to economic growth nor built up their capacity to do so. The question is, what is the possibility that Nigeria's economic development will benefit from the emerging global knowledge economy considering the abysmal performance of its education industry? Adedeji and Bamidele (2003) listed three unique features of education, which could translate to economic growth; these are content of education, access to education and openness of education to labour market demand.

Higher Education (HE) is the main source of that knowledge - its production, dissemination and its absorption by any society. Economic growth currently depends on the capacity to produce knowledge-based goods. However, the future of knowledge economy depends more on their capacity to produce knowledge through research and development, rather than on knowledge-based goods. Hence, knowledge economies place greater value and accord higher priority to the production and distribution of knowledge. Higher Education Institutions are a major source for producing the human capital required for knowledge production. It is however noteworthy today, that even if much knowledge is available at very low cost, its accessibility and use depend on human capacity to process and absorb it. If a nation's capacity to produce knowledge is weak, its capacity to access and absorb it determines the pace at which that country develops. Higher education therefore, plays a crucial role in

enhancing a nation's human capacity to absorb and use knowledge. Then, if knowledge is a source of economic growth, disparities in its distribution become a source of inequalities among nations. Studies have shown that income inequalities are high where enrolments in HE is low. Individual benefits of HE includes ensuring better employment, high salaries, and a greater ability to consume and save. HE emerges as an important variable contributing significantly toward improving individual earnings.

Theoretical and empirical literature are saddled with the debate on human capital being or not being the core determinant of economic growth. The introduction of human skills and knowledge as a component of capital in the production system is traceable to the classical economist, Adam Smith, (1776). To him, the talents and skills acquired by residents of a country are part of the country's capital stock because it increases the wealth of the nation and the citizenry. However, not linking his assertion in a coherent manner attributed the economic growth of an economy to division of labour rather than the level of human capital. Building on Smith's earlier work, Thomas Malthus in his dynamic growth model explains that each country converges toward a stationary per capita income. In this model, when incomes exceed the equilibrium level, death rates fall and fertility rises, and vice versa. In the nineteenth century, this hypothesis failed the empirical test as globally, fertility rate fell rather than rose as incomes grew during the period. In response to the failure of the Malthus hypothesis, the neoclassical growth model explained the growth process avoiding Malthus linkage with population and the economy. To them, the growth process adjusts to the rate of

investment in physical capital and not in population growth. Therefore, physical capital stock grows more slowly when per capita income exceeds its equilibrium level and more rapidly when per capita income is below equilibrium (Becker *et al*, 1994).

Some Fundamental Issues of Concern: Human Capital, Inclusive Growth and Sustainable Development

Many researchers over decades have been able to confirm the assertion that, humans are the most important and potential source of productivity. **Human Capital** is thus seen as a measure of the skills, education, capacity and attributes of labour which influence their productive capacity and earning potential. It is the economic value of the abilities and qualities of labour that influence productivity. These qualities include higher education, technical or on-the-job training and health. Investment in these qualities improves the abilities of the labour force. The result of this is however greater output for the economy and higher income for the individual. In a documentation by the United Nations Economic Commission for Africa, human capital is classified as being all about knowledge, skills, attitudes, physical and management efforts in human beings. All these are required to manipulate capital, technology and land among other things, in order to produce goods and services for human consumption. Human capital is referred to as "the abilities and skills of human resources," and hence the foundation and the end of any form of capital (Adelakun, 2011). In a more unique form, Kwon (2009) defines human capital "as creator, who frames knowledge, skills, competency, and experience originated by continuously

connecting between "self" and "environment". One point is salient, and that is, that human capital is saddled with the interaction between individuals and the entire economy (on the aggregate level). These individuals can be viewed as either assets or liabilities depending on their state of development. It is on this note that expenditure on them is viewed as an investment rather than expenses as on normal goods and services.

Human capital is viewed as "the knowledge, skills and competencies embodied in individuals that facilitate the creation of personal, social and economic well-being" (Riley, 2001). Therefore, human capital (human resource) is further confirmed as the base and the end of any form of capital. Relevant literature over the years have emphasized the fact that humans are the most important and potential source of productivity and growth in any nation. Human capital is a fundamental source of economic growth. It is a source of both increased productivity and technological advancement. Innovations, equipment and technology are engineered by human beings, made realistic by creative thinking, which is a product of the human mind. Of all forms of capital, human capital remains the most relevant. Both economic theory and empirics recognize human capital as a core determinant of economic growth.

The call for **inclusive growth** (IG) has been unanimously declared by policy makers across the world. The concept of (IG) is a broad term that ensures that economic growth benefits all segments of the society including the poor, near poor with meager incomes, the middle class and even the rich. It is thus referred to as "broad-based growth", "shared growth" and "pro-poor growth" Conceptualized in

this form, IG is growth that reduces the disadvantages of the vulnerable and most disadvantaged while benefitting everyone. IG is an economic growth performance that encompasses equity, equality in both income and opportunities coupled with protection in market and employment. It focuses on economic growth which is a necessary and crucial condition for poverty reduction. It is enhanced with rapid and sustained Gross Domestic Product (GDP) by a leading sector of the economy not necessarily all sectors of the economy. IG is both an outcome and a process. It ensures everyone participates in growth process both in terms of decision making for organizing the growth progression as well as in participating in the growth itself. IG adopts a long-term perspective and is concerned with the pace and pattern of economic growth. However, how growth is generated is critical for growth sustainability and for accelerating employment creation and poverty reduction (IMF, 2012). IG entails achieving sustainable growth that will create and expand economic opportunities and ensure broader access to these opportunities so that members of the society can participate in and benefit from economic growth. The pursuit of IG agenda entails providing and facilitating access to better quality and relevant education and training. Finally, IG involves broadening participation in the development process.

The Bruntland Commission in a published report "Our Common Future" in 1987 defined **Sustainable Development (SD)** as "development that meets the needs of the present without compromising the ability of the future generations to meet their own needs". Four dimensions to SD have been identified as society, environment, culture and economy. All these are however intertwined. The expectation is for a balance to be attained among environmental,

societal and economic considerations in order to achieve improved quality of life for the general populace. SD refers to many processes and pathways to achieve sustainability. This includes sustainable agriculture and forestry, sustainable production and consumption, good governance, research and technology transfer, and above all education and training. Education for SD has been integrated into global development framework. The concept of SD provides a framework for the integration of environmental policies and development strategies. Thus, the overall goal of SD is the long-term stability of the economy and environment; which is only realizable through the integration of economic, environment and social concerns throughout the decision-making process.

Sustainable Development Goals (SDGs)

Mr. Vice-Chancellor, Sir, the SDGs originated from the United Nations Conference on Sustainable Development in Rio de Janeiro in 2012 with the major objective of producing a set of universal goals that meet the urgent environmental, political and economic challenges facing the whole world. The SDGs replace the Millennium Development Goals (MDGs) which started a global effort in 2000 to tackle challenge of poverty. For 15 years, the MDGs drove progress in several important areas: reducing income poverty, providing much needed access to water and sanitation, reducing child mortality and drastically improving maternal health. They also kickstarted a global movement for free primary education, inspiring countries to invest in their future generations. More significantly, the MDGs made huge strides in combatting HIV/AIDS and other diseases such as malaria and tuberculosis. However, for millions of people around the world, the 8 goals of the MDGs remained not fully realized and there is the

need to strive further to end hunger, achieve full gender equality, improve health services and getting every child in school beyond the primary level. The SDGs are unique in that they cover issues that affect us all. They also reaffirm our international commitment to end poverty. Thus, the SDGs are an urgent call to shift the world onto a more sustainable path, safer and more prosperous planet for all humanity. All the 17 goals interconnect, meaning success in one affect success for others. They are listed below:

Sustainable Development Goals

Goal 1: End Poverty in all its forms by 2030.

Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

Goal 3: Ensure healthy lives and promote well-being for all at all ages.

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

Goal 5: Achieve gender equality and empower all women and girls.

Goal 6: Ensure availability and sustainable management of water and sanitation for all.

Goal 7: Ensure Access to affordable, reliable, sustainable and modern energy for all.

Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.

Goal 10: Reduce inequality within and among countries.

Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

Goal 12: Responsible consumption and production.

Goal 13: Take urgent action to combat climate change and its impacts.

Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development.

Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation and halt biodiversity loss.

Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

Goal 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development.

Source: Sustainable Development Goals-UN (2017).

Mr. Vice-Chancellor Sir, in as much as the SDGs are interconnected, I say emphatically that this inaugural lecture is anchored on the realization of goals 1, 4, 5 and 8. Based on my research outcomes over the years, I've been able to confirm that no nation can develop beyond its investment in human capital via its integrals (education and health). Thus, the general goal of investment in human capital is to enhance the

quality of human life which will enable people to live long and productive lives, enjoy good health, have access to knowledge and educational opportunities among others. Furthermore, the basic transmission of education to economic growth is through participation of educated individuals in the labour market. As important as it is for the citizens to be educated, it is much more important that these educated individuals participate actively in the productive sectors of the economy. Furthermore, the Sustainable Development Goals (SDGs) has its goal 8 as "promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all" by 2030. It should however be noted at this juncture that economic growth can only be inclusive in the short run and sustainable in the long run, if it is based on equity and inclusivity. The full realization of goal 8 is however attainable based on this fact.

Theoretical Underpinnings

Hypothetically, what exactly is the role of human capital in the economic growth and development of a nation? This takes us to growth theories which are traceable to the classical, neoclassical, endogenous and human capital models.

The Classical Model

The classical model is the earliest attempt to explain the growth differences of nations. The model is a short run growth model which assumes that capital explains the differences in the growth divergences of nations looking at the three markets (the labour market, output market and money market) of a hypothetical economy. The 'Classicals' assume that when there is full employment in the system,

i.e, the demand for labour equals its supply; and as such, the market clears. Secondly, the real variables are all determined independent of the nominal money stock, the money stock play no role on real variables; therefore, the system exhibits money neutrality. The model above sets up a platform for an empirical understanding of sources of growth divergences across nations. It is evident in the model that growth is determined by two factors; capital and labour. The stock, utilization, and productivity of these factors explain why some nations do better than others.

The Neoclassical Model

Neoclassical growth theory examines the determinant of long-term economic growth. The 'Neoclassicals' reveal significant contributions from technical progress (through accumulation of factor inputs such as physical capital and labour), defined as an exogenous factor. At the heart of the neoclassical model lies an aggregate production function exhibiting constant returns to scale in labour and reproducible capital. The aggregate production function possesses diminishing returns on the accumulation of capital i.e., each additional unit of capital used by a worker produces a decreasing amount of output. The Cobb-Douglas function expresses the relationship:

$Y = L^{1-\alpha} K^{\alpha}, 0 < \alpha < 1$. Alternatively, the per worker production function can be written as: $y = f(k) = k^{\alpha}$. In other words, labour productivity can increase only if there is capital deepening (i.e, if capital intensity increases). The crucial tenet of the neoclassical model is that, under the decreasing returns on capital, output per worker does not increase indefinitely.

Endogenous Growth Model

The search for a sufficient growth theory led to the emergence of a new school of thought; the **endogenous growth model,** championed by the works of Romer. An important contribution of this model to the growth theory is the introduction and inclusion of human capital into the production function to explain the variation in growth of countries. The endogenous growth model struck out the proposition of the universality of the law of diminishing-returns to-scale with respect to capital accumulation. In realistic terms, if a firm invests in capital, and employs healthy, educated and skilled manpower, because of labour efficiency on the use of capital and technology, there will be an increase in the marginal productivity of labour. Therefore, there will be no slowing down of the economy; the economy will rather record increasing growth. Proponents of this model argue that the impact of the enhanced human capacity will rather lead to a shift in the production function and thus leading to increasing returns to scale rather than decreasing growth rates. Therefore, technology and human capital are determined inside the system, i.e., they are "endogenous" to the system.

Human Capital Theory

This theory attempts to answer the question on "Why the decision to invest in education is made?" The theory is therefore relevant at the decision-making stages. The proponents of this theory (Theodore and Shultz) see human capital as how education increases the productivity and efficiency of workers by increasing the level of their cognitive skills. In other words, they see human capital as the stock of economically productive human capabilities, which can be formed by

combining innate abilities with investments in human beings. Examples of such investments include expenditures on education, on-the-job-training, health and nutrition. Such expenditures increase future productive capacity at the expense of current consumption. The provision of education is seen as a productive investment in human capital, an investment which the proponents of the human capital theory consider to be equally worthwhile than that in physical capital. The notion of education as a capital good is rooted in this concept of human capital, which attached a high premium to human skills as a factor of production in the development process. Human skill or productivity has been found by this theory to be just as important an input in the process of development as finance, natural wealth, and physical plant. The proponents of the theory have established that basic literacy enhances the productivity of workers in low skill occupation. In this regard, an instruction that demands logical or analytical reasoning, or provides technical and specialized knowledge, increases the marginal productivity of workers in high-skill or professional positions. Thus, educational choices may be assimilated to investment decisions where rational individuals decide on the optimal amount of education they wish to acquire so as to maximize the net return to education. The higher the provision of schooling, the greater the stock of human capital in the society. Consequently, the greater the increases in national productivity and economic growth.

My Contributions to Research and Scholarship

Mr Vice-Chancellor, Sir, I proceed from the theoretical background presented previously to share with this audience today some of my

contributions to research published as articles in various reputable peer-reviewed journals within and outside Nigeria. I have also participated in workshops, seminars and conferences both home and abroad where I presented my research output. It is noteworthy at this juncture to emphasize that one of my presentations at such outings (which was basically extracts from my PhD thesis) was gloriously adjudged the best when it was presented at an international conference in faraway Chicago, United States of America, (where I knew nobody). The paper was subsequently published in an international journal. I have focused on human capital development which is a broad aspect of development economics (which is my area of specialization). I have been able to prove beyond all reasonable doubt that "No nation can develop beyond her investment in education". I will be presenting just some of my major research contributions which I have been engaged in over above twenty-seven years of tertiary education teaching and research experience, along these broad themes:

- Determinants of Demand for Education.
- Education Output and Economic Growth.
- Higher Education Research, Entrepreneurship Education and Economic Growth.
- Economic Growth as Gross Domestic Product (GDP) per worker employed.
- Government Expenditure and the Integrals of Human Capital: Comparative Analysis of selected sub-Saharan African Countries' Experience.
- The Role of Budgetary Allocation in Development Process.
- Trends of Budgetary Allocation to the Education Sector Pre and During Global Financial Crises (GFC).

- Conceptual Framework on the linkage between Investment in Education and Economic Growth.
- Higher Education and Human Capital Development
- Higher Education, Human Development and Inclusive Growth
- Human Capital and Economic Growth.
- Human Capital, Demographic Trends and Economic Growth.
- Human Capital Development for Inclusive and Green Growth Development Strategy.
- Investment in Human Capital for Sustainable Economic Growth
- Rostow's Growth Theory, Structural Transformation and Economic Development.
- Structural Transformation, Economic Growth and Development: Literature Review and Theoretical Perspectives.
- GDP and GDP Per Capita Growth Rates of three Major Sectors: Stylized Facts on Selected Countries.
- Human Capital Development and Economic Diversification.
- Economic Diversification and Sustainable Development.
- Human Capital Development and Poverty Reduction.

1. Determinants of Demand for Education

Mr. Vice-Chancellor Sir, researchers over the years have identified the various determinants of demand for education. Such determinants are

presented with variables such as price of education (P_E), (P_{X-1}) price of other goods, (Y) income level measured in terms of discounted future increased earnings, (W) forgone earnings during study and other variables proxied by socio-economic variables such as heightened social status and other benefits that can be derived from investing in education (SES). The demand for education equation is thus presented as:

$$D_E = f(P_E, P_{X-1}, Y, W, SES) \quad - \quad (1)$$

This expression was referred to as the price elasticity of demand for education.

The problem of students' inability to gain access into university education in Nigeria was becoming serious, harassing and alarming to parents, policy makers and the society at large. Thus, in 2009, I conducted a comprehensive research on the use of resources, student's demand for education and private university education. Six private universities were adopted for the study, out of the 34 approved as at 2009. The adopted sampling technique for the choice of private universities was the multi-stage random sampling procedure while the students' sample size was based on the enrolment figure for each selected institution in the 2005/2006 academic session. The sample frame for the 100-300 level undergraduate students considered for the research was 5,948. Descriptive, inferential statistical measures and econometric methods were utilized to analyse the data collected and respond to the six research questions designed to pilot the study. The Enrolment Projection Technique (precisely the Linear Extrapolation Model) was adopted to project the trend of students' enrolment into these private universities in the next five and ten years. Descriptive analytical tools were used for the presentation of the demographic

and socio-economic variables (Campbell, 2010a). Findings reveal that, about 45% of the parents of the respondents are within the monthly income level range of ₦150,000 – ₦250, 000, while only about 31% earn above ₦250,000 monthly with the others earning below ₦150,000. However, the occupational structure of these parents shows that the bulk of these parents (42%) are civil servants, with only 30% in the business sector and 21% are professionals. The cross tabulation of this analysis however indicates that about 57%, 33% and 10% of these parents have one child, two and three children respectively enrolled in the sampled private universities. This indicates that majority of the identified parents of the respondents enrolled a child in the sampled private university (Campbell, 2010a)

However, the result of the Pearson's Correlation (R) conducted indicate a positive relationship between parents' monthly income and the number of children a family enrolls in private university (Campbell, 2010a). But the acceptance of the null hypothesis of no significant relationship between parents' monthly income and the number of children a family has in a private university implies that the relationship between these identified variables is weak, which points to the fact that there are some other factors apart from parents' monthly income that determine the number of children a family enrolls in a private university.

It was also found out that, relationship between parents' educational status and the number of children a family has in private university is negative. This implies that the higher the educational status of a parent, the lesser the number of children the parent would want to enroll in a private university. However, the acceptance of the null hypothesis of no significant relationship between parents'

educational status and the number of children a family has in private university, buttresses further the fact that there are other deductions that would be made from the educational status of a parent. This further implies that at high educational level of parents for instance, there is greater tendency for them to consider sensitive issues on the future consequences of enrolling their children in a private university. For instance, they might want to consider factors such as: the quality of the certificates that will be awarded the students of a private university, the extent of acceptance of the graduates of private universities in the labour market in the nearest future and also the extent to which the students of the private universities can compete favourably with their colleagues from the public university setting and so on (Campbell, 2010a).

Furthermore, on physical facilities, students' responses really revealed that each private institution has its own peculiarities in terms of physical facilities put in place for the students. The facilities are not the same. These peculiarities will also determine the choice of the students for these private institutions. The result of the linear regression model analysis led to the rejection of the null hypothesis while the alternative hypothesis of significant relationship between human, financial/physical resources and students' enrolment was accepted. The outcome of the causal relationships of the identified resources in the model indicates that financial resources are very important in determining students' enrolment in private universities. The findings of this study on finance, agrees with the submission of Campbell, (2007a) which emphasizes the fact that the financial position of an institution has a lot to do with the continuity/existence of the institution and even the effective functioning of every unit in an institution. The submission identified the need for the institution to

mobilize sufficient funds in the form of school fees, loans, grants from local and foreign organizations, endowments, contribution from corporate bodies and charges paid by students, investment on commercial ventures and consultancy services (Campbell, 2010a).

Adopting the linear extrapolation method, the projected enrolment of qualified students into Abti-American, Babcock, Bowen, Covenant, Igbinedion and Madonna Universities by 2011/2012 academic session revealed increases by 119%, 20%, 48%, 100%, 32% and 66% respectively. Similarly, the projected enrolment figures in the next ten years in the six universities in the arranged order indicate increased enrolment even though at varying degrees also. The outcome of the projected enrolment figures was expected to hold based on the state of factors such as admission criteria/entry requirements into the various universities, amount of fees paid by students and the number of newly established private universities in the locality of these private universities. However, it was emphasized that out of the household determinants, there is a positive association between parental household income and students' enrolment using the correlation coefficient as the inferential statistical measure. This submission claims that poor households may be unable to afford the direct and indirect costs of enrolment at any level of education and such households may be constrained in their ability to borrow to cover the costs.

2. Education Output and Economic Growth

The accumulation of human capital through education has long been acknowledged to be an important factor in the development process

of a nation. Education is thought to be beneficial because it decreases inequality, improves the quality of life, and in particular it is a factor in increasing the income level and facilitating economic growth. There exists a lot of literature on the inclusion of human capital in models of economic growth. The two main macro approaches are the augmented Solow model and the new growth theories. The augmented Solow model extends the basic framework to allow human capital as an extra input into the production function. In particular, Mankiw *et al.* (1992) show that traditional growth theory can accommodate human capital and provide a reasonable approximation for empirical analysis. At the economy-wide level, it may also take into account human capital externalities. Still, one of the key insights is that the factor accumulation affects the level of income, but it is insufficient to achieve long-run growth. Long-run growth depends rather on growth in technological progress. Human capital accumulation may therefore have only a short-term impact on the rate of growth.

The new growth theories emphasize the endogenous determination of technological progress, which is determined within the model. Thus, long-run growth can be affected by government policies instead of being driven by exogenous technological change. With respect to human capital, the endogenous growth approach argues that there should be an additional effect over and above the static effect on the level of output. Models that explain long-run growth by focusing on technological progress, research and development, argue that domestic technological progress results from the search for innovations. The discovery of an innovation, undertaken by profit-maximizing individuals, raises productivity and

is ultimately the source of long-run growth. This kind of model attributes growth to the existing stock of human capital.

A second category is the model of Lucas (1988). It broadens the concept of capital and suggests that human capital accumulation may be an engine of growth itself, due to spillover effects that negate diminishing returns in production. The introduction of human skills and knowledge as a component of capital in the production process is traceable to the classical economist, Adam Smith. To him, the talents and skills acquired by residents of a country is part of the country's capital stock since it increases the wealth of the nation and the citizenry. Formal schooling is one of the several important contributions to the skills of an individual and human capital. Also, it has been well-established in literature that the distribution of personal incomes in any society is strongly related to the amount of education people have had. Resource qualities on the other hand could be increased through formal and informal education

The economic benefits of education in improving growth rates of economies cannot be overemphasized. It has been noted over time that a properly educated society translates into higher rates of economic growth and thus enhances ability of government to alleviate poverty. The works of (Mankiw, Romer and Weil, 1992; Campbell and Agbiokoro, 2014) made substantial submissions on the positive association which they found between education quantity and economic growth. They used school enrolment ratios, average years of schooling, adult literacy rate and education spending to measure education quantity. In economic theory, the main area of investment in human capital which contribute to improvement in the quality of

labour has been in education and training. Thus, in the theory of economics of education, human resources constitute the ultimate basis for the wealth of nations.

Mr. Vice-Chancellor Sir, the principal institutional mechanism for developing human skills and knowledge is the quality of the formal education received by people. Modifying the existing methodologies and specifically choice of variables, a model is employed to analyze the impact of investment in quality education on economic output. Findings provides evidence on the importance of investing in quality education output and its impact on economic growth in Nigeria. The study found that investment in education in Nigeria is quite low and fall below the recommendations of the United Nations. Nevertheless, investment in education through government expenditure on education and other explanatory variables does not only influence economic growth in Nigeria, but the impact is strong and statistically significant. This, by implication, means that if Nigeria is to achieve sustainable economic growth, it is of utmost importance to improve the quality of education output by investing heavily in the sector and improve the adult literacy rate in the economy (Okuwa and Campbell, 2019).

3. Higher Education Research, Entrepreneurship Education and Economic Growth

Mr. Vice-Chancellor Sir, higher education and research are a moving force for innovations and key factors for the development of the society. They support the innovations concerning the stability of the society. Higher education and research stress the ongoing

reformulation of the function both have to play in strengthening modern society innovation capacities. All the basic functions of higher education research, teaching and scholarship are subjected to revisions in both their objectives and in the conditions under which they are carried out. Another main focus of higher education and research is the ability to find a balance between teaching and research and between excellence and relevance in a world that is not just competitive in a traditional academic sense but dynamic. There is also the need to fund the best conditions for teaching and learning at reasonable costs that fits the nation's personal needs and aspirations. Higher education and research are not only supposed to provide excellent education and research, but also deliver outputs in ways that are relevant to the nation, education and other stake holders. Successful educational reform is a necessary step meant to create the basis for sustained economic growth and requires the involvement of all stakeholders ranging from families and civil society to national and local governments. This is only possible through higher education research as confirmed by (Campbell, 2009).

In addition, higher education research plays an indispensable role in economic growth by creating an increasing knowledge, developing ways of understanding issues at hand within the economy and also informs policy decisions. The place of corporate social responsibility in higher education research cannot be overemphasized. There is supposed to be a business-like contract between higher education, resources, government and society which will make for more responsive and successful higher education and research system. Such a contract will include certain social repercussions which are stated in monetary terms with obligations for the respective contract

partners be they public or private. In this respect, universities, polytechnics, colleges of education are not only expected to pay attention to democratic and ethical values and deliver value for money, but also work on their corporate social responsibility (CSR) related to universities and other higher education providers contributing to solving important problems that call for innovative, social, economic and cultural solutions. It is noteworthy however, that in a highly dynamic context, politicians, institutional decision makers, students, academics and other stakeholders raise fundamental questions about further developments in higher education. As a country, the question is how the nation becomes one of the front runners in global competition for excellence and innovation while dealing with the breadth and scope of higher education. As an academic, the question is how to find a balance between teaching and research and between excellence and relevance in a world that is not just competitive but dynamic. As a student on the other hand, the question is how to find the best conditions for teaching and learning at reasonable costs that fit the individual needs and aspirations.

Entrepreneurship refers to an individual's ability to turn ideas into action. It includes creativity, innovation and risk taking as well as the ability to plan and manage projects in order to achieve set objectives. Entrepreneurship can also be seen as self-employment which entails ownership and management of a business concern. It is the process of creating something new with value by devoting the necessary time and effort, assuming the accompanying financial, psychic, social risks, receiving the resulting rewards of monetary, personal satisfaction and independence. The process could be in the area of input innovation and other forms of innovations in business.

Entrepreneurship is the practice of taking an idea and inventing an organization for developing that idea. The benefits of entrepreneurship include the provision of gainful employment which in turn helps to improve the standard of living of individuals and the nation as a whole. (Campbell, 2009).

Entrepreneurship and economic growth are very closely related and positively linked. This had been made undoubtedly clear from the works of Schumpeter who identified innovative activity by distinguishing five components of entrepreneurship. They include the introduction of new goods, introduction of new methods of production, the opening of new markets, the conquest of a new source of supply of raw materials and the creation of a monopoly position. The works of Campbell (2009) confirms this submission and proceeds to classify an entrepreneur as a person who risks time and money to start and manage a business. In short, he takes risks in order to derive maximum profit.

Entrepreneurship Education (EE) focuses mainly on the promotion of creativity, innovation and self-employment. It helps to develop personal attributes and skills that form the basis of an entrepreneurial mind set and behavior. Furthermore, it raises the awareness of students about self-employment and entrepreneurship as possible career options. Entrepreneurial programmes and modules offer students the tools to think creatively, be an effective problem solver, analyze a business idea and communicate, network, lead and evaluate any given project. The real challenge of EE is to build interdisciplinary approach that would make EE accessible to all undergraduate students and where appropriate creating teams for

development and exploitation of business ideas. EE is to provide students with an introduction to the theory and practice of entrepreneurship and new venture creation. This in the long run will enhance economic growth and development.

In a study conducted on one public and one private university in Oyo State, it was found out that EE courses are not taught in relation to interdisciplinary requirements of the students in all the faculties in both universities. EE is rather taught as general courses. This does not fit into the entrepreneurial needs of each discipline in the various faculties. The place of higher education research in the effective implementation of the practical aspect EE in universities cannot be overemphasized. Many researches involving innovations into the teaching and implementation of modes of conducting practical sessions on EE are still lacking (Campbell, 2009). The intensification of exposition of students to the practical aspect of EE was highly recommended. Above all, researches should be conducted by both lecturers and students in the university community on innovative solutions to socio-economic problems of the nation such as finding alternative source of power generation within the university community. Also, sensitization workshops should always be based on outcomes of researches conducted within the university community on how successful entrepreneurial/business ventures could be established and organized. It is very important for university management to create enabling environment for the conduct of innovative researches.

4. Economic Growth as Gross Domestic Product (GDP) per Worker employed

Mr. Vice-Chancellor Sir, labour productivity is an important economic indicator that is closely linked to economic growth, competitiveness and living standards within an economy. It represents the total volume of output (measured in terms of GDP), produced per unit of labour (measured in terms of the number of employed persons) during a given period of time. Labour productivity as an economic indicator, provides the general information about the efficiency and quality of human capital in the production process for a given economic and social context, including other complementary inputs and innovations used in production. As a result of the usefulness of GDP per person employed in conveying valuable information on a country's labour market situation, it was one of the indicators used to measure progress towards the achievement of the Millennium Development Goals (MDGs) under Goal 1: (Eradicate poverty and hunger) meant to be realizable in 2015. Furthermore, it has also been proposed as a measure of progress towards the achievement of the Sustainable Development Goals (SDGs), under Goal 8: (Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all). Economic growth in a country can be ascribed to either increased employment or to more effective work done by those who are employed. The effective work done can be described through statistics on labour productivity. Labour productivity is therefore a key measure of economic performance. The driving forces behind labour productivity include: accumulation of machineries/equipment, improvement in organization's physical and institutional infrastructures, improved health and skills of workers

(human capital) and the generation of new technology. All these identified driving forces of labour productivity are important for formulating policies such as labour market policies in order to support economic growth of a nation (Campbell, 2007; Campbell *et al.,* 2016). High labour productivity is often associated with investments in human capital involving specific education/training policies and preference for special health care facilities. It is worthy to note at this juncture that there are various indicators of economic growth and many authors have chosen them based on various reasons. Conventionally, GDP is most popularly used. However, the form of GDP used depends on the objectives set to be achieved by the author. In various works we see researchers using GDP nominal values, real GDP, GDP per capita and most recently GDP per person employed. I hereby argue in line with Durlauf, Johnson and Temple (2004) and Jones (1997) that GDP per person employed is a better measure of productivity and economic growth.

5. Government Expenditure and the Integrals of Human Capital –Comparative Analysis of Selected Sub-Saharan African Countries' Experience

Another comprehensive research conducted on "Government Expenditure and the Integrals of Human Capital: The Sub-Saharan African Experience" by Campbell and Agbiokoro (2014) records that in the early years of 1981-1999, the Nigerian economy barely grew as it recorded almost consistent negative growths for a period of fourteen years with only slight improvements afterwards. Not until the early 2000s did the economy grow consistently. As regards the budgetary allocation to the education sector, out of the six selected sub-Saharan

African countries, Nigeria seems to be the worst performer. In the period under review, 1998-2010, Nigeria allocated 5.5 percent, 3.3 percent, 9.6 percent, 5.9 percent, 10.8 percent, 6.5 percent, 6.6 percent, 6.6 percent, 8.5 percent, 7.4 percent, 6.1 percent, 5.0 percent, and 4.7 percent respectively (budgetary allocation as a percentage of total government expenditure) to the education sector. Allocation to the health sector was relatively better than the education sector. For instance, between 1998-2010, the Nigerian government made these budgetary allocations as percentages of total government expenditures in the following order annually; 7.1 percent, 5.4 percent, 4.2 percent, 3.2 percent, 3.1 percent, 5.1 percent, 7.8 percent, 6.4 percent, 7.1 percent, 9.2 percent, 7.7 percent, 5.9 percent, and 4.4 percent respectively. Not minding the underinvestment in the integrals of human capital as revealed above, productivity and growth in the Nigerian economy has been on a consistent increase within the period 1998-2010, except for the initial negative growth; -0.3 percent and -2.5 percent recorded between 1998-1999; the economy grew afterwards in the following order; 2.3 percent in 2000, 5 percent in 2001, 17.7 percent in 2002, 7.6 percent in 2003, 7.9 percent in 2004, 2.6 percent in 2005, 3.5 percent in 2006, 4.2 percent in 2007, 3.1 percent in 2008, 4.4 percent in 2009, and 4.9 percent in 2010.

Cote d'Ivoire is rated as the second-best performer in budgetary allocation to education. She allocated 15.9 percent in 1998, 20.6 percent in 1999, 20.8 percent in 2000, 23.2 percent in 2001, 22.6 percent in 2002, 21.8 percent in 2003, 22.1 percent in 2004, 21.8 percent in 2005, 20.8 percent in 2006, 21.7 percent in 2007, and 24.6 percent in 2008. Its performance in the health sector is not encouraging, not until 2009 and 2010 did its allocation to the health

sector hit 6.8 percent; it has always ranged from 4.8 to 6.6. However, the impressive allocation to the education sector has not reflected in productivity and growth performance of the nation (Campbell and Agbiokoro, 2014)

Ghana is rated as the best performer in investment in the integrals of human capital; education and health simultaneously. She performed reasonably well in the periods under review. Available data from 2004 till 2010 show that the Ghanaian government allocated between 22.5 to 27.6 percentages of her total expenditure to the education sector. This is a commendable effort to be emulated by other Sub-Saharan African nations. Her investment in the health sectors has been impressive during the review period. Little wonder why her macroeconomic performance also resulted into consistent positive growths in productivity. The above experiences have shown that it is difficult for a country to invest massively in the integrals of human capital and not record phenomenal and consistent growth rates in productivity and the overall economic growth.

For a period of six years that data was made available for public analysis, Kenya did not perform badly either. In 2000 and 2001, the government allocated to the education sector 25.8 percent and 22.6 percent respectively, 22.1 percent and 29.2 percent in 2004 and 2005 respectively and 17.9 percent in 2006. The health allocations have been considerably reduced from 8.8 percent in 1998, to 8.3 percent in 1999, but slightly increased to 10.5 and 9.2 percentages in 2000 and 2001 respectively, to 8.3 percent in 2002, and considerably reduced to 8.2 in 2003, to 7.9 percent in 2004, to 7.6 percent in 2005, to 7.5 percent in 2006, to 7.2 percent in 2007, to 6.1 percent in 2008, and 7.1 percent in 2009, and to 5.9 percent in 2010. The macroeconomic performance did not show a good and reasonable growth in

productivity, in fact, in the base year 1998, the economy recorded zero growth, negative growths in six periods and positive growths that never grew beyond 4.17 percent in 2007.

South Africa's commitment to the education sector shows a decreasing trend in this review period. In 1999, she committed 22.2 percent of her budgetary resources to the education sector, and gradually, it started going down to 18.1 percent in 2000, 23.4 percent in 2001, 18.5 percent in 2002 and 2003 respectively, 18.1 percent in 2004, 17.9 percent in 2005, 17.6 percent in 2006, 17.1 percent in 2007, 16.2 percent in 2008, 16.9 percent in 2009, and 19.2 percent in 2010. The economy also recorded five periods of negative growth in the health sector and even where positive growths were recorded, they were stunted growth ranging between 0.36 to 3.31 percentages. Also, available data for Uganda shows a positive commitment to both the education and health sectors. She invested 18.3 percent, 18.9 percent, and 15 percent of her total government expenditure in the education sector in 2004, 2009 and 2010 respectively. Her productivity and growth indices were also positive throughout the period under review ranging from 0.98 percent to 7.27 percent (Campbell and Agbiokoro, 2014). In comparison to other Sub-Sahara African countries, Nigeria has not shown enough commitment to the investment in human capital. The implication of this is that Nigeria has unexploited growth opportunities. If and only if she can committedly invest in the education and health sectors of the economy, and utilize these capacities by improving on the employment situation, she will record unprecedented growth in productivity and economic growth. Nigeria cannot afford to play down on the role of a functional investment in human capital on the overall economic growth of the economy (Campbell and Agbiokoro, 2014).

6. The Role of Budgetary Allocations in Development Process.

Mr. Vice-Chancellor Sir, at this juncture I introduce the role of budgetary allocations in developmental process. A budget is a legal document that is often passed by the legislature and approved by the chief executive or president as an instrument of economic management for a given financial year. The structure and size of the budget in any economy depends on the fiscal capacity (economic prosperity) of the country, which also determines whether a deficit balance or surplus budget will be in operation. Furthermore, a budget has to be well-designed, effectively and efficiently implemented, adequately monitored and its performance well evaluated. The role of a budget in an economy is enormous (Ayodele and Campbell, 2008). This is because the budget is an important instrument of national resource mobilization, allocation and economic management. It is also an economic instrument for facilitating and realizing the vision of government in a given fiscal year. Some key indicators of the performance of national budgets identified in literature include: (i) ratio of total expenditure to gross domestic product (GDP); (ii) share of expenditure on financial component of government expenditure(administration, economic services, social and community services and transfers), which make clear distinction between productive and unproductive spending (iii) overall budget balance (overall surplus/deficit as a percentage of the GDP; and sectoral allocation vis-à-vis the utilization of the budget funds (Campbell, 2010b). Besides, government budget determinants have been categorized into three classes of variables namely: Structural variables which include degree of urbanization and population

growth; economic factors which include government budget deficits, government debt, interest payment of government investment, foreign aid, degree of openness and foreign direct investment; Politico- institutional factor which includes political ideology, electoral cycles, coalition factors, political freedom as well as political instability (Campbell, 2010b).

Government budgets are determined by the expanded role of government which includes provision of pure public goods such as defense, public health, education, macroeconomic management and so on. Budgetary allocations play an important role in the development process of any country. Budgetary allocations to public sector are usually recorded as capital expenditure and recurrent expenditure. Expenditure has been defined as an outflow of resources from the government to other sectors of the economy whether requited or unrequited. Capital expenditure is payment for non-financial assets used in production process for more than one year while recurrent expenditure is payment for non-repayable transactions within one year. Allocation to education sets off an intergenerational process of poverty reduction, because better educated persons are more likely to ensure the education of their children and also attend to the health requirements of their wards. In another submission, it is noted that the achievements of East Asian countries were largely due to successful educational strategies. Furthermore, it has also been submitted that improvements in budgetary allocations to education, health, agriculture and transport sectors reinforce each other. It was also identified that the labour force needs to be educated and capacity building programs must be launched for their effective and productive role in the national

economy. In order to move towards knowledge-based economy, government must allocate substantial amount of the national budget to education which would bring rapid change in the economic development of the country. He emphasized the fact that by allocating more funds to the education sector, human capital could be improved which would ultimately accelerate the pace of economic growth (Odusola, 1998; Campbell, 2010b).

7. Trends of Budgetary Allocation to the Education Sector (Pre and During the Global Financial Crisis-GFC)

Mr. Vice-Chancellor Sir, the GFC ushered in dramatic shifts in the economic landscape, with direct implications on education at all levels and broadly for social development and the achievement of the MDG 2. The GFC occurred at a time when impressive progress is being made in getting more children into school with primary school enrolment across sub-Saharan Africa, increasing at a much faster rate than in the 1990s. This is especially true in the case of Nigeria which has made little progress to widen access to primary education. Recent history records that during past financial crises in Latin America and South Asia; social sectors were mostly hit by reduction in government expenditure and increased child labour. The world's poorest children and youths are at the risk of dropping out of school due to poverty (Varghese, 2009). The most important mechanism through which the global recession affected Nigeria's economy was through decline in the price of oil. From 2004, there was a sustained increase in oil prices, with the price of Bonny Light peaking at US$146.15 per barrel in July

2008 (Campbell and Olaoye, 2011). The causes of this boom were increased demand due to sustained world economic growth from 2003 to 2008 and an inelastic supply of oil. The GFC caused the international demand for oil to fall. This coincided with increased supply leading to a collapse in the price of oil. Bonny Light fell from a peak of US146.15 in July 2008 to a trough of US$39.85 in January, 2009 (IMF, 2012). Governments were under pressure to reduce respectively, their social spending and budget in the wake of economic and financial crises. Every state of the federation has less to spend on education (Nurudeen and Usman, 2010). Budgetary allocation to education has continued to fall short of the 26% of the entire budgetary allocation benchmark of the United Nations. Also, the Education for All Global Monitoring Report, 2008 has ranked Nigeria among the countries in Africa that will not achieve Education for All target of the MDG by 2015. No wonder UNESCO reports on Higher education and specifically confirmed that the Nigeria's educational system is experiencing a serious decline in terms of quality of its research due to lack of adequate funding.

Since the economic downturn in the eighties, the Nigerian education sector has suffered unprecedented setbacks in resource allocation especially in funding. Government realized this with the limited financial resource at its disposal and called for active participation of stake holders to finance education in order to achieve educational goals. Education has been in crisis for many years mainly because the sector is poorly funded. This results in shortages of material and human resources experienced in the system, lack of

economy. In order to move towards knowledge-based economy, government must allocate substantial amount of the national budget to education which would bring rapid change in the economic development of the country. He emphasized the fact that by allocating more funds to the education sector, human capital could be improved which would ultimately accelerate the pace of economic growth (Odusola, 1998; Campbell, 2010b).

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qualified teachers, shortage of classrooms and so on Governments are expected to place a lot of premium on agriculture, education, transport and the health sectors due to the catalytic roles the sectors play in the development of the other sectors. The overriding budgetary objective is that these prime sectors will be able to move the other sectors of the economy forward by giving the enabling environment. However, in some cases, these sectors' returns have not produced the desired result.

When compared with many other countries such as Ghana, Cameroon, Kenya, Zimbabwe, Philippines, Thailand and Mexico, Nigeria spends less of its total government budget on education which explains low human capital development in the country. The works of Campbell and Agbiokoro (2014) confirms this submission. This has however affected access to education at the primary, post- primary and tertiary levels of education. For instance, available data confirms that enrolment pattern has been low between the periods of 1981-1989, 1990-1998 and 1999-2006. These were periods under various dispensations. Enrolment rates improved over the years such that more than 79% of primary school-aged children were enrolled in primary schools in 2002; the figure fell to 72% in 2004. However, controlling for the number of children enrolled in primary school, but whose age does not fall into the primary school age category, the enrolment rates would be substantially lower. The secondary school enrolment case presents a dull picture as only 20.6% of the Nigerian population aged 12 -17 were enrolled in secondary school in Nigeria in 1990. This increased over the years to 34% in 1991 and further to 40% in 2002.

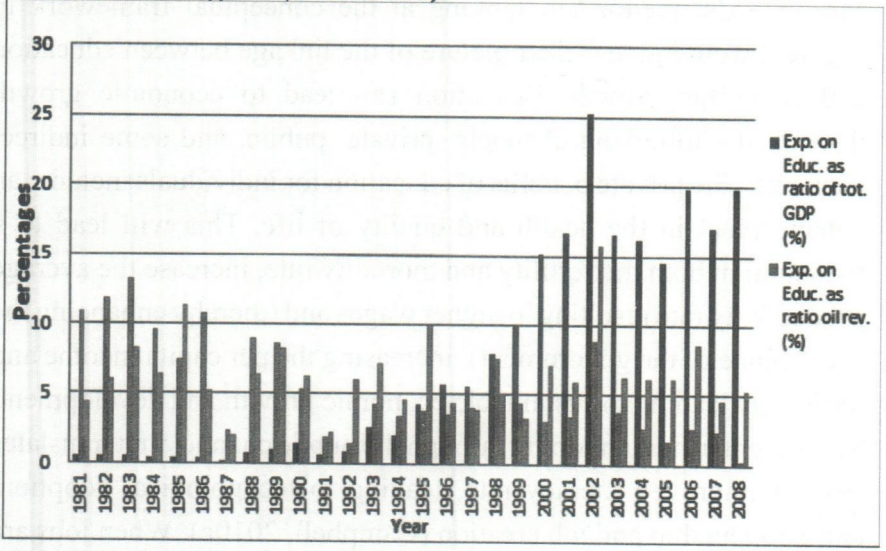
The gross enrolment rate fell to 35% in 2004. This trend has continued consistently NBS, several years). This is still a very low enrolment rate for a country that needs to develop citizens into highly skilled manpower.

An assessment of budgetary allocations to the education sector, presented the trend of federal government's budgetary allocations to the sector pre and post GFC. It was deduced from the available data that Nigeria generated about 20 trillion naira from oil between 1981 and 2006. This is about 83% of total government revenue. It was also clear from the available data that the federal government only allocated an average of 0.5% of total GDP to education within the period of 1981 and 1989. Also, between 1990 and 1998 the average share of total GDP to education was 3.9% while it recorded an average of 16.8% between 1999 and 2007. By 2008, when the GFC set into the economies of developing nations, the share was about 20%. This is an indication that between 1999 and 2008 the Nigerian government recorded some improvements in its concentration on the education sector in terms of share allocated to education from the nation's income. About 0.5% of GDP allocated to the education sector in Nigeria, is lower than the average of about 4.5% of GDP allocated to the education sector in other Sub-Saharan African countries. This is still low when compared to an average of 6% of GDP allocated to the education sector in Organization for Economic Co-operation and Development (OECD) countries (Campbell, 2013b).

Considering the share of education expenditure from oil

revenue between 1981 and 1989, (Figure 1), it is clear that no proportionate share of government finance has been directed to education, and hence human capital development in Nigeria. The trends of budgetary allocation of the federal government to the education sector compared to the benchmark of 26% recommended by UNESCO, show that the sector had been going through an internal crisis under different dispensations of government even before the global financial crisis that took off in 2008 (Campbell, 2013b).

Figure 1: Oil Revenue, GDP and Government Expenditure on Education in Nigeria (1981-2008).



Findings from the work of Campbell (2013b) reveal a non-significant relationship between the size of government revenue and budgetary allocation to education in Nigeria. The implication is that

so far (before and during GFC) the Nigerian government has continually paid less attention to funding education. This pattern however worsened even during the GFC. The study made a strong recommendation on the urgent need for increased political will to develop the education sector. More importantly, the need for the Nigerian economic base to be diversified in order to generate a wider fiscal space for the economy was also highly recommended (Campbell, 2013b).

8. Conceptual Framework on the Linkage between Investment in Education and Economic Growth

Mr. Vice-Chancellor Sir, looking at the conceptual framework in Figure 2 would give a clear picture of the linkage between education and economic growth. Education can lead to economic growth through the following channels: private, public, and some indirect channels. The private benefits of education for individuals include: an enhancement in the health and quality of life. This will lead to a reduction in both the fertility and mortality rate, increase the average productivity rate resulting to higher wages and (thereby enhancing the tax revenue of the government), increasing the per capita income and ultimately leading to sustainable economic growth and development. Investment in human capital through the public channel first translates into an improved literacy rate, leading to technological adoption, entrepreneurship and job creation (Campbell, 2010c). When jobs are created through entrepreneurial activities, tax revenue is boosted and government revenue consequently increases, and when efficiently allocated, poverty is reduced leading to sustainable economic growth and development.

The adequately educated and trained physicians and health workers help in improving the society's aggregate health, and this indirectly leads to a rise in productivity at work. More skilled labour leads to higher wages, higher expected lifetime earnings, improved incentives to work, and a reduction in dependence on the welfare system. Stronger knowledge and skills will promote invention and innovation which are principal ingredients of long-term growth. An adequately educated economy also prepares the younger generation for taking up the leadership positions to preserve her institutions. And finally, if more people have the skills, qualifications and competencies to remain active in an ever-changing economy, it supports progress in combatting high levels of poverty and social exclusion (Campbell and Agbiokoro, 2014).

Some of the indirect effects of investment in the integrals of human capital that are not normally captured in measured national economic growth include externalities which can either be economic (technological, environmental and so on.) and non-economic; cultural and social development, compliance with global environmental standards, reduced crime rate, aggregate peace and ultimately leading to economic growth and development. Each of these indirect effects translates significantly to aggregate social gains. Others include; better healthy practices as a result of higher education. At the micro level, an individual firm takes into account the impact of training on its firm performance, given the current total stock of human capital in the economy. The more developed the human capital in her employment, the greater the firm's internal and external performance. Some of the external benefits are often not economic in nature but they

countries to explore the future of tertiary education in developing countries. The Task Force report, argued that higher education is essential to developing countries if they are to prosper in a world economy where knowledge has become a vital area of advantage. The quality of knowledge generated within higher education institutions and its availability to the wider economy, the report stressed, are becoming increasingly critical to national competitiveness.

10. Higher Education (HE), Human Development and Inclusive Growth

Mr. Vice-Chancellor, Sir, it becomes so important to say that the role of higher education in economic growth and development cannot be overemphasized. HE enhances the potential to contribute to human and social development through the promotion and facilitation of citizen participation and involvement in the growth processes (Campbell, 2017). The development of human capital in any economy is very vital; this could be achieved by investing huge number of resources in the educational sector. This singular action is expected to translate to human development where adequate mobilization, efficient allocation and utilization of resources had been put in place (Campbell, 2007a). This will in turn produce quality manpower that will manage the nation's resources effectively. The Nigerian educational system at all levels witnessed deterioration in the eighties, nineties and recently because the sector was not given enough priority in the area of funding. In Nigeria, the decline in the quality of education at all levels has become a fact of national life. Indeed, the most significant event in the sector in the recent past has been the continuing crisis that besets the educational system. This crisis is

rooted in the deteriorating conditions within the citadels of learning, in respect of teaching facilities and other infrastructural facilities, the welfare of those engaged in the teaching profession and the ever-increasing cost of education. This has culminated in student strikes and industrial actions by teachers at all levels of the educational system (Okuwa and Campbell, 2011)

Various researchers have found that out that high economic growth not accompanied by increases in human capital development lead ultimately to non-inclusive and unsustainable growth process. Thus, an important conclusion was made that human development is a necessary prerequisite for long-term inclusive and sustainable growth. The crucial lesson that emerges is that the old-fashioned view of "grow first and worry about human development later" is not supported by the empirical evidence. Improving levels of education and health should have priority or at least move together with efforts to directly enhance growth. The differences between developed and developing nations can better be explained by differences in the endowments of human capital, rather than physical capital. This underscores the reason why the 'Asian Tigers' in the past three decades allocated between 25-35% of their annual budgets to the education sector. Various research outcomes on China argues that the true success factor for Chinese growth is the huge investments made in human capital development. Therefore, the idea that China succeeded because of its infrastructures is a misplaced argument. It is education that will pay-off in the long run, once a nation has the relevant growth in human capital, then infrastructure will be self-financed by the growth. The African Development Bank (AfDB) emphasizes the fact that IG is all about growth coupled with equal opportunities and

consists of economic, social and institutional dimensions. It is accompanied by lower income inequality. The conclusion is that the key elements in IG are employment and productivity, the development in human capabilities and social safety nets and the targeted intervention. IG has also been seen as GDP growth that leads to significant poverty reduction. AfDB (2015); Campbell (2017) and many other researchers have contributed significantly to the identification of the major drivers of IG in an economy. According to them, the outcome of IG is faster and it enhances sustainable economic growth. Thus, for growth to be inclusive, it has to be **pro-employment**. IG takes a long-term perspective and focuses on productive employment rather than income distribution. It is only a productive labour force that can contribute and benefit from the development process of the economy. Furthermore, for economic growth to be inclusive, it has to be **pro-poor.** This implies that the average man (Nigerian) is expected to live above the poverty line which is only possible if economic activity in the economy keeps increasing and not otherwise. IG needs to ensure **income equality.** The enhancement of **human capabilities** is another identified vital prerequisite for IG. This is categorized as the supply side of IG model. It captures physical, mental and material wellbeing of the general populace, especially the working population. **Gender Equity** has also been identified as vital for economic growth to be inclusive. Campbell, 2017; Campbell, 2019a and 2019c)

11. Human Capital and Economic Growth

Mr. Vice-Chancellor, Sir, a comprehensive research on human capital

and economic growth nexus, indicate that the integrals of human capital (education and health), both the public and private sectors, technological development, population growth and the first order lag of GDP per worker impact positively on the aggregate growth of the Nigerian economy with population growth exerting the highest positive impact on productivity among other regressors added in the model. Also, the activities of both the public and private sectors exert a positive impact (with the private sector taking the lead) on the growth of the Nigerian economy. The model showed that as adequately trained and employed population enhance the growth of the economy, high mortality and unemployment rate remains the greatest challenge to school enrolment (primary) in Nigeria. The estimates do not support Solow's hypothesis of high population growth/low productivity relationship. In the case of Nigeria, when Solow's full employment assumption is relaxed, high population growth enhances productivity. Also, previous year's school enrolment, population growth, and the government sector exert positive impacts on primary school enrolment. Expectedly, mortality rate and unemployment rate exert negative impacts on economic growth (Campbell and Agbiokoro, 2014).

Furthermore, real government expenditure on health, primary school enrolment, and technological advancement exact positive impacts on life expectancy but a negative impact on mortality rate, i.e., as primary school enrolment and government expenditure on health increases in real terms, average life expectancy increases and mortality rate decreases. It is no surprise that education (even at the

primary level) has the greatest marginal impact on life expectancy. Medical practitioners must be adequately educated and trained to meet up with the global demands on the provision of health care. Technological advancement and real government expenditure on health impacts positively on life expectancy. This is done through access to improved medical practices and adoption of up-to-date discoveries for efficient and effective health practices (Campbell and Agbiokoro, 2014).

Mr. Vice-Chancellor Sir, higher education is a prerequisite for the production of highly competent experts, which in turn, contributes to the development of organizations and the economy at large (Adedeji and Campbell, 2014). Higher education in any nation is expected to play an important and increasing role in the development of human capital; thus, higher education remains the foundation for human capital development and economic growth of any nation. However, it is not just any kind of education, but the form of education that will translate to economic growth. Emphasis must then be placed on the access to, content and openness of educational programmes to labour market demand. In order to improve the general performance of the educational system and increase the payoff from higher education's investment, the introduction of Public-Private Partnerships in the provision of higher education was highly recommended (Adedeji and Campbell, 2014).

12. Human Capital, Demographics and Economic Growth

Human capital like physical capital is an important factor input which

can be accumulated overtime to increase the economic productive capacity/potential. Human capital accumulation is ultimately linked to other development phenomena such as income distribution and demographic transition. Human capital accumulation reduces young adult mortality, which in turn induces lower fertility. Furthermore, lower fertility reduces the cost of human capital investment, and thus parents increase their human capital investment per child. This leads to a vicious cycle in which human capital growth leads to lower fertility and more rapid human capital growth. Investments in girl's education play important role in promoting demographic changes that enhance slower population growth. Increased education increases the mean length generation which has to do with the amount of time a cohort of women take to reproduce itself. Better utilization of public health and family planning services, higher infant and child survival rates/reduced fertility preferences are important outcomes of increased investment in education. Societies characterized by high mortality and fertility levels for instance typically have social structures and economic incentives that encourage high fertility

Three major drivers of demographic trends: fertility, mortality and immigration were identified in one of my detailed research. The channels through which human capital development could stimulate economic growth during changing demographics was investigated. A model in which economic growth was a function of productivity and productivity itself, a function of demographic trends was presented. While adopting a Two-Stage Least Square (2SLS) econometric technique, which is a special case of instrumental variable regression,

result showed that productivity and investment in human capital; particularly investment in education has an elastic impact on the growth of the economy. This means that a percentage increase in productivity or investment in human capital causes a more than proportionate increase in the growth of the economy. This is highly significant even at one percent significant level. These elastic impacts of human capital and productivity on economic growth is transmitted through changes in demographics, such as increased total school enrolment, life expectancy, labour force participation, reduced fertility and infant mortality rates. This means that improvements in demographic trend surely increase economic growth through its positive impacts on productivity.

Human capital investment in health proved to be inelastic but very significant. We can accept that budgetary misappropriation; lack of budget discipline and implementation might also help in understanding the reasons behind the inelastic nature. 96% of the variations in economic growth can be explained from productivity and investment in human capital. A high F-Statistic and the significances of its probability show that the model is relevant in explaining these effects. The paper proceeds to recommend that government should endeavour to ensure compliance with the United Nations and World Health Organization benchmark on expenditure/investment on education and health. This will enhance a productive demographic trend in the country via the exploitation of the country's demographic window of opportunity. In the final

analysis, emphasis was placed on the fact that no nation can develop beyond its investment in education (Campbell and Okuwa, 2016).

13. Human Capital Development for Inclusive and Green Growth Development Strategy

Mr. Vice-Chancellor Sir, inclusive growth is enhanced by rapid and sustained Gross Domestic Product (GDP) by a leading sector of the economy and not necessarily all sectors of the economy. Inclusive growth ensures everyone participates in the growth process both in terms of decision making for organizing the growth progression as well as in participating in the growth itself. Rapid pace of growth is seen as unquestionably necessary for substantial poverty reduction. However, for growth to be sustainable in the long run, it has to be broad based across the sectors of the economy and involve a large part of the country's labor force.

Green Growth is economic progress that fosters environmentally sustainable, low carbon and socially inclusive development (UN-ESCAP, 2010). Such a growth becomes inclusive when everyone is involved in ensuring environmental sustainability and benefits from the action. Hence, inclusive Green Growth is one that results in improved human well-being and social equity while significantly reducing environmental risks and ecological scarcities. It entails supporting growth that enhances human well-being, social equity and shared economic opportunities while still reducing environmental risks and ecological scarcities, minimizing inefficient use of natural resources and maintaining biodiversity among others. It is needed because risks to development are rising as economic growth

continues to erode natural capital. If these risks are left unchecked, this would mean increasing water scarcity, greater pollution, climate change and unrecoverable biodiversity loss. Thus, greener economies imply inclusive economies. Furthermore, inclusive green growth implies long-term investment, adequate capacities and innovation. It is more relevant to sub-Saharan Africa, where growth has been extremely unequal and narrowly concentrated in only a few sectors and geographic areas; and high levels of economic growth have not translated into sustainable poverty and hunger reduction; where high levels of pollution and environmental degradation are common practices and climate change is demonstrating its most profound impacts (Campbell, 2019c).

The rationale for inclusive Green economy has to do with the need to arrive at a more robust indicator of economic performance which will not only include growth in Gross Domestic Product but be adjusted to account for increased economic opportunities by public and private investments. This is expected to target the reduction of carbon emissions and pollution, augment energy as well as resource efficiency and prohibit the dilapidation of biodiversity and ecosystems. Such investments are catalyzed by national policy reforms, targeted public expenditure, regulatory alterations and the development of international policy and market infrastructure. The framework for inclusive Green Growth development strategy is expected to establish incentives and institutions that increase wellbeing by improving resource management and boosting productivity, ensuring innovation and bringing together economic, environmental and social development.

Inclusive Green Growth trajectory seeks to minimize the

detrimental effects of climate change by promoting green practices that are more sustainable over the long run. The transition to an inclusive Green economy will depend on the specifics of the country's natural and human capital and on its relative level of development. Despite high levels of economic growth witnessed in several African countries over the past decade, growth has not been inclusive as the absolute number of poor and hungry people in Africa has increased considerably. Africa's economic growth has been a jobless one in which women and youth are grossly affected. For growth to be inclusive high levels of employment must be sustained over a long period of time (World Bank, 2012). Thus, achieving inclusive Green Growth involves reducing emissions of pollutants and Greenhouse gases, minimizing waste and inefficient use of natural resources, preserving bio-diversity, improving investments in education and health (Campbell, 2019c).

14. Investment in Human Capital for Sustainable Economic Growth and Development

Mr. Vice-Chancellor, Sir, sustainability focuses largely on the carrying capacity of the environment and the deleterious impact of human activity on the environment. Human beings are at the center of concerns for sustainable development. As part of the mandate and goals in the context of the inclusive Green economy, much emphasis has been placed on consideration of human well-being. To this end, human development, health and education come strikingly to the fore. Human development is the expansion of people's freedoms to live long, healthy and creative lives; to advance other goals they have

reason to value; and to engage actively in shaping development equitably and sustainably on a shared planet. The critical role of investment in education and health, promoting gender equity and development cooperation, have been identified in literature as advancing human development, even where economic growth has faltered (UNDP Report, 2010). Education influences virtually every aspect of human existence, including fertility rates, infant mortality, health, life –expectancy, population growth, employability, income level and economic growth, patterns of consumption, technological/social innovation, entrepreneurship and public awareness among others. On the other hand, the advancement of health is integral to human development. It is central to sustainable development as it enhances quality of life and ensures a better future for the people. Health improves with advances in human development and furthermore, improved health promotes human development as a healthy population is more productive. The adoption of proper policies to improve water/sanitation, climate change, housing, food security and gender equality will exert positive impacts on the state of health of the population. Environmental degradation and ecosystem disruption take a toll on human health by contributing to the emergence of new diseases and resurgence of contagious diseases. Thus, transition to an inclusive Green economy reduces the burden of diseases overall and particularly among the poorest and the most vulnerable (Campbell, 2019c).

The development and evolution of human capital are the most critical determinants of sustainable development. This is because it impacts on sustainability by accelerating the process of technological

innovations with the capacity to mitigate environmental damage. Capacity building is central to sustainable infrastructure (Low Carbon Energy, Construction, Water and Sanitation, Sustainable Cities and Transport) and natural resources (Agriculture, Forestry, Tourism and Mining) management (Campbell, 2008). Public investment in human capital emphasizes the acquisition of skills and technology which are crucial for productive workforce and competitive economies within the inclusive green growth agenda. Investment in human capital via education enhances skills and capacity building programmes for Green Growth. Specifically, effective investment in education and health increases the quality of human resources through human capital, thereby increasing productivity when the employment landscape is conducive. Investment in education at all levels (with more emphasis on higher education) fosters the emergence of a more informed, socially conscious population, capable of understanding and responding to the challenge of sustainability. Furthermore, investing in human capital enhances the productive and creative capabilities of human beings which can be harnessed to achieve higher and more sustainable levels of human welfare and wellbeing.

Sustaining a positive transition to inclusive green economy will involve the need for young people to be granted access to education, thus equipping them with the necessary skills and knowledge they need in a more interconnected and resource-constrained world. There will be the need to educate and train to meet new realities of inclusive green growth. Investing in education is expected to ensure a scale up of skills in Science, Technology,

Engineering and Mathematics (STEM). Human capital development is essential for transformation in Technical Vocational Education and Training (TVET) to promote innovative entrepreneurship and productivity. Investments in TVET is seen as an approach to increasing economic competitiveness, reducing poverty, increase productivity, employability and attainment of inclusive green economies.

15. Rostow's Growth Theory, Structural Transformation and Economic Development: The Critical Place of Investment in Human Capital

Walt Rostow's stages of growth model is one of the major historical and structural models of economic growth and development. It is a growth model that identifies five stages of structural transformation developed countries have gone through in order to reach their current degree of economic development. The stages are the traditional society, preconditions to take-off, take-off, drive to maturity and age of high mass consumption. Nigeria's real economic growth collapsed to 1.5 percent in 2016, representing a negative growth in more than two decades. The economic recession experienced then was driven by a large contraction in the oil sector. In addition, global crude oil price dropped from above $100p/b in 2015 to about $50 p/b in June 2016. Nigeria's crude oil production declined majorly as a result of vandalism and militant attacks on oil installations in the Niger Delta. Production averaged 1.7 and 1.6 million barrels per day (mbpd) in the 2nd and 3rd quarter of 2016, compared to 2.2 mbpd in 2015. Despite government efforts to address security challenges in the Niger Delta,

oil production averaged only 1.9 mbpd in 2016, compared to 2.1 mbpd in 2015. As a result, oil GDP contracted by 13.6 percent throughout 2016 while the oil sector represented only 8.4 per cent of GDP in 2016 (National Bureau of Statistics, 2018)

Structural transformation (ST) is the reallocation of economic activity across three broad sectors (agriculture, manufacturing and services) that accompanies the process of modern economic growth (Herrendorf *et al*, 2013). It is the transition of an economy from low productivity and labor-intensive economic activities to higher productivity and skill intensive activities. ST is characterized as having the change of productivity in the modern sector, which is dominated by manufacturing and services, as its driving force. Furthermore, it involves the movement of the workforce from labor-intensive activities to skill-intensive ones. The movement of labor is however severely affected by the existence of opportunities in skill intensive sectors. Structural transformation in 11 sub-Saharan African countries and its implications for productivity have also been reported in literature. The expansion of manufacturing activities was found to have led to a growth-enhancing reallocation of resources (Campbell and Asaleye, 2016).

It has been clearly indicated in various researches that economic development entails ST, and that countries that are able to pull out of poverty are those that are able to diversify away from agriculture to other sectors of the economy. This is accompanied by movement of labour into modern economic activities. This leads to increase in overall productivity and expansion in income. This explains the pathways of economic growth and development which is

enhanced by investment in human capital (Etchemendy (2009), Mcmillan, Rodrick and Verduzco-Gallo (2013); Campbell, 2019c). Economic Development is Economic Growth plus ST. Economic growth is a necessary but not sufficient condition for economic development. GDP growth accompanied by reduction in the share of primary production (mainly agriculture) and increase in the share of secondary production (especially manufacturing) and subsequently tertiary (modern technology and knowledge intensive services) activities in total GDP, is indicative of economic development. It is this pace of economic growth that generates employment and translates to a more inclusive growth trajectory. Economic development is attained when an economy goes through the path of structural transformation. Economic growth on the other hand is characterized by patterns of changing shares of different sectors in the national income and labor force. Without ST, the economy cannot be propelled to move forward. Also, without transition of labor into more productive activities, productivity gains cannot be diffused to the rest of the economy (Ajakaiye, 2016). Rostow's Model of Economic Growth and Development identifies five stages of growth a nation must go through in the process of structural transformation. The model is otherwise referred to as the Rostovian Take-Off Model. These stages according to Rostow, all economies must go through in order to attain economic development. **See (Figure 3)**

Stage 1: The Traditional Society

At this stage, the economy is characterized as agrarian in nature using crude methods of production. Also, savings and investments are low at

this stage. Production at this stage is also at the subsistence level, while trade is by barter.

Stage 2: The Pre-Condition for Take-off into Self-sustaining Growth, i.e., Transitional Stage

This stage is an improvement from the traditional stage. This stage launches the economy into economic development. There are improvements in provision of infrastructures. Specialization through division of labor in the production process is also experienced at this stage. The economy prioritizes increased investment in education, while there are surpluses which enhances savings and investments.

Stage 3: The Take-Off

The economy at this stage is launched into the process of industrialization with the springing up of industries. Investments identified as capital mobilization is on the increase and all sectors of the economy starts to grow simultaneously. Greater investment in the integrals of human capital is evident at this stage. Positive changes also occur in the political economy of the country.

Stage 4: Drive to Maturity

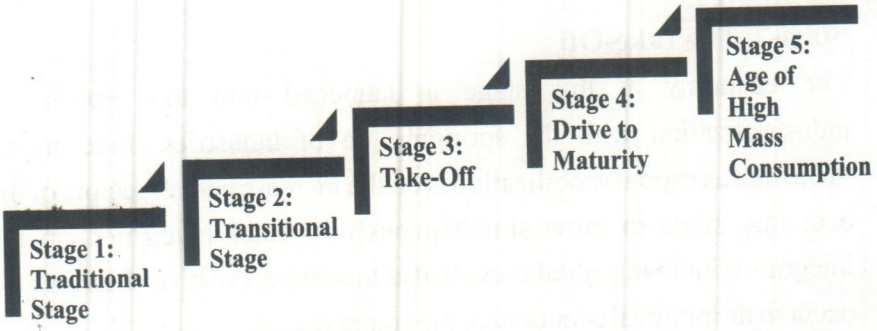
The economy now identifies the importance of diversification and is actively involved. The economy starts to innovate through introduction of entrepreneurial skills and technological advancements. It becomes difficult to attain this stage without adequate human development via appreciable investment in human capital. The economy becomes less reliant, less import dependent and

more of an export-led economy as investments increase further. The economy at this stage is able to withstand unexpected shocks.

Stage 5: Age of High Mass Consumption

At this stage, there is mass consumption of all that has been produced over the advancement in stages of growth. Goods produced are now competitive in the open market as they are now mostly durable goods that the economy produces. Above all, the services sector becomes more dominant.

Figure 3: Rostow's Model of Economic Growth and Development



Source: Campbell, 2019b

The economy now enters the phase of structural transformation via increase in employment share in the services sector. This leads to a high share of services in output and labor force. Researches have hinted that the demand for manufactured goods continues in the upward trend while the demand for agricultural products is on the decline and the demand for services rises in tandem

with the increased demand in the manufacturing sector. A typical feature of an economy that lacks structural transformation is characterized by weak productive capacity in all its sectors. This translates to low per capita income which allows for low welfare status of a large proportion of the general populace due to low employment level (Campbell, 2019b; Campbell, 2016; Ayodele and Campbell, 2010).

16. GDP and GDP Per Capita Growth Rates of Each of the 3 Major Sectors: Stylized Facts on Selected Countries (Singapore, Indonesia and Korea)

Singapore can be categorized as an advanced emerging nation rated 2nd most competitive country in the world and consistently being the highest ranked country in Asia in the last decade. A high share of Singapore's exports is classified as technology-intensive. So, Singapore has worked effectively over the years to attain a knowledge-based economy via huge investments in human capital. The annual growth rates of agriculture, forestry and fishing was very low throughout the period under consideration. Industry on the other hand recorded an average of 9.1 percent output growth rate between 1991 and 1995. After the output growth rate of 6.3 percent recorded between 1996 and 2000/8.4 percent between 2006 and 2010, 2011-2017 recorded declines. This is however similar to the growth trend observed in the services sector. We conclude then that appreciable growths were recorded in industry and services sectors with mainly negative growth in the agricultural sector in Singapore during the period under consideration. Based on these identified facts, we conclude that Singapore is at the advanced stage of development.

Average productivity per worker was appreciably high throughout the period under consideration as double digits were maintained in growth rates of output per worker. This gives the impression that available resources in Singapore were adequately utilized by labour and more importantly, growth was inclusive in Singapore thus translating to economic development.

According to the World Bank categorization, Indonesia is the world's 4th most populous nation and the world's 10th largest economy in terms of purchasing power parity and a member of the G-20. The growth rates of output in the three major sectors of the economy indicate that output growth was low but steadily making progress in agriculture (Campbell, 2019b). Growth of output in industry and services sector were moderate and progressive. This indicates that the structure of Indonesia's economy is a prototype of the Rostow's stages of structural transformation. In terms of GDP per capita, high growth rates in output per person were recorded in agriculture, industry and the services sectors. This implies resources are put to efficient use in Indonesia and each worker employed was highly productive during the period under consideration in this study. GDP per capita growth rates was high as 25 percent between 1991 and 1995 maintaining appreciable steady increase between 2001 and 2017. This is also an indication that economic growth in Indonesia during the period under review was inclusive and translates to economic development (Campbell, 2019b).

Korea Republic is an exceptional example of an aid recipient country that turned a high-income one. It has experienced remarkable success in combining rapid economic growth with significant

reductions in poverty. Considering the country's growth rate of output in the three major sectors of the economy, the agriculture, industry and services sector grew steadily. No sector was left behind in terms of pace of development. This indicates structural transformation took place as presented by Rostow in terms of gradual transition from one sector to the other. The GDP per capita growth rates between 1991 and 2017 reflects consistent high productivity level per worker. This is also an evidence of inclusive growth and the presence of structural transformation translating into economic development (Campbell, 2019b).

Singapore, Indonesia and Korea Republic, ensured a pace and pattern of economic growth in which none of the three major sectors of the economy was neglected at any point in time throughout the period under consideration. Agriculture, forestry and fishing, industry and the services sectors recorded moderate growth rates in the three countries indicating evidence of structural transformation This feature was further confirmed when the GDP per capita growth rates were considered for the three countries. Productivity per person growth rates were appreciably moderate in the three countries. This is also an indication of inclusive growth pattern in these countries. This also is a reflection of the existence of efficiency driven economy in the three countries enhanced grossly by investment in human capital.

Comparing these indices with the Nigerian economy's case, output growth rates in agriculture, forestry and fishing was low on the average, even though employment in the sector was moderately high. This implies that the sector still remains the largest employer of labour in Nigeria. However, output growth rates in industry remains low with

low employment shares, even in the sector. Employment in services was however moderate, which is an indication that the growth process in Nigeria does not totally tally with Rostow's model of economic growth and development. The services sector on the other hand recorded output growth rates that are moderately high during the period under consideration (Campbell, 2019c) This is an indication that Nigeria's growth rates were not accompanied by structural changes in the economy in which the expectation is that no sector is neglected. Also, growth in services sector should drive economic growth in both agriculture and industry. The GDP per capita growth rates in Nigeria were at its peak between 2001 and 2005 when 33 percent was recorded. This however ended up in a significant decline between 2016 and 2017 when -16 percent growth rate was recorded. This implies that productivity per worker in Nigeria is still questionable. Efficiency driven economy is thus ruled out. It should be noted that economies that experience structural changes are employment driven are very concerned with gross investment in human capital.

For the secondary sector to predominate in its contributions to GDP, there has to be a mobilization of all available resources in the sector and efficiently utilizing them in order to ensure structural changes in the economy. This is majorly possible through investment in human beings which cannot be overemphasized. In addition to this, no sector of the economy should be neglected. In fact, the Rostow's model of output growth and structural change should be strictly adhered to. The government should play her role by providing an enabling environment for industries to thrive. The presence of a well-

endowed human capital base which would enhance the output performance in agriculture and industry, by providing the appropriate manpower supply in the sector is very essential. This will enhance the attainment of a knowledge-based economy as experienced in the comparator countries. Finally, economic growth that will be inclusive and translate to economic development should be the target of the Nigerian government. Lessons can thus be learnt from the experiences of economic growth process and procedures of the comparator nations.

17. Human Capital Development and Economic Diversification

Mr. Vice-Chancellor Sir, industrial growth of an economy is categorized in terms of output expansion, domestic final demand, export-oriented growth, import substitution and technological change. All these drives sustainable development through structural transformation. The structural pattern of GDP for Nigeria and some selected countries is presented in tables 1 and 2.

Table 1: Percentage Distribution of Real GDP by Sectoral Group, 1961-2014

Sectoral Group	1961	1966	1970	1977	1981	1987	1990	2003	2007	2009	2011	2014
Primary Sector	**70.54**	**69.68**	**66.99**	**62.10**	**58.40**	**60.25**	**55.68**	**68.36**	**61.92**	**58.44**	**55.30**	**23.04**
Agriculture	68.88	66.95	49.45	30.10	28.37	29.24	22.99	34.62	42.02	41.69	40.2	22.90
Mining & Quarrying	1.66	2.73	17.54	32.00	30.03	31.02	32.69	33.74	19.90	16.75	15.1	0.14
Secondary Sector	**9.67**	**12.55**	**16.15**	**13.05**	**12.14**	**12.60**	**9.04**	**10.51**	**9.24**	**9.05**	**6.2**	**14.34**
Manufacturing	4.73	7.00	7.66	6.30	5.60	5.95	5.12	4.32	4.03	3.72	4.2	9.95
Building & Construction	3.30	4.95	7.77	2.90	2.83	2.87	1.78	2.70	1.72	2.01	6.2	3.82
Utilities	1.63	0.60	0.60	3.85	3.71	3.78	2.14	3.49	3.49	3.32	3.0	0.57
Tertiary Sector	**19.79**	**17.77**	**16.86**	**24.85**	**29.46**	**27.16**	**35.28**	**21.13**	**28.84**	**32.51**	**39.0**	**19.29**
Wholesale & Retail	19.36	15.40	13.56	14.21	14.17	14.19	8.68	12.92	16.16	18.14	19.4	16.57
Other Service Activities	0.43	2.37	3.29	14.64	15.29	14.97	26.60	8.21	12.68	14.37		2.72
Total (GDP)	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.0**	**100**

Source: Underlying data from National Bureau of Statistics (NBS), Abuja and IMF: Int1rnational Financial Statistics (IFS).

The distribution of Nigeria's GDP as indicated in Table 1 is dominated by the primary sector which comprises agriculture and mining and quarrying. Agriculture remains the main driver of the primary sector. In terms of contribution to GDP, the secondary sector is the least in Nigeria. Comparing agriculture and the manufacturing sectors, the table shows an extreme dominance of agriculture in the GDP. The contribution of the manufacturing sector over the years was below 10 per cent. This demonstrates the skewness of the Nigerian economy and the low-level of diversification of the economy.

Three categories of countries are selected for comparison. The

first category consists of countries that were initially at the same phase of development with Nigeria. These are African countries consisting of Egypt, Ghana, Botswana, and South Africa. The second group consists of the newly industrializing countries which are mid-way in the continuum of development. That is, they are between the advanced and the less developed countries. These are Mexico and Brazil from Latin America. The third class of countries are those from Asia (India, Indonesia, Malaysia and China). The choice of these countries was based on their sharing some similarities with Nigeria on economic development. The agricultural sector is known generally to dominate other sectors at the early stages of economic development of nations. This appears to be the pattern in the sampled countries. Table 2 reveals the dominance of agriculture in the 1960s. Most of the countries (excluding Brazil, Mexico and South Africa) had agricultural share of GDP over 17 per cent. It is remarkable to note that Nigeria's agriculture share in GDP during this period was the highest (56.96 per cent). For most of the countries, the share of agriculture in GDP dropped in subsequent periods. For instance, the share in Botswana (a mineral resource rich country) dropped to as low as 2.24 per cent in 2000-2010. Similarly, the share in Indonesia (another oil resource rich country) fell to 14.62 per cent. In the case of Nigeria, the share dropped from 56.96 per cent in the 1960s to 31.17 per cent in the 1970s. Since then, the trend of the share of agriculture has been upward. Indeed, this is against the emerging trend in the world as shown in Table 2. Furthermore, while most of the countries have manufacturing share of double digit, that of Nigeria is single digit and which unfortunately maintained a downward trend also during the period of investigation less than 5 percent as at 2016. In 2000-2010,

the sector contributed an appalling 3.95 per cent (Okuwa and Campbell, 2018).

Table 2: GDP Structure in Selected Countries (%)

	Agriculture					Manufacturing					Services				
Countries	1960s	1970s	1980s	1990s	2000-2010	1960s	1970s	1980s	1990s	2000 - 2010	1960s	1970s	1980s	1990s	2000 - 2010
Botswana	39.52	23.74	8.70	4.25	2.24	9.72	6.84	6.00	5.17	3.91	46.98	37.36	33.82	40.90	46.79
Brazil	16.83	12.69	10.45	6.87	6.09	28.16	30.00	32.72	20.28	16.96	46.26	47.98	45.01	60.49	66.12
China	37.16	32.35	29.39	20.50	12.23	29.02	37.22	36.04	32.93	32.12	27.69	23.17	26.27	34.11	41.30
Egypt	28.88	28.15	19.75	17.25	15.02		15.73	14.40	17.54	17.25	44.05	44.09	49.70	50.95	49.02
Ghana	44.90	56.46	52.54	42.57	35.71	12.83	12.27	8.67	9.93	9.11	29.69	24.56	33.62	32.89	40.05
India	42.53	38.91	31.99	27.64	19.74	14.25	15.75	16.57	16.29	15.30	37.28	38.45	42.08	45.92	53.02
Indonesia	51.52	34.02	23.18	17.91	14.62	9.00	10.42	15.35	23.72	27.53	34.02	35.91	38.70	40.32	39.17
Korea	33.78	26.16	13.43	6.64	3.44	15.57	21.61	27.51	27.14	27.52	42.96	44.02	47.37	51.98	59.27
Malaysia	31.21	27.39	20.30	13.15	9.25	9.48	16.82	20.42	27.05	28.57	43.76	39.52	40.70	44.31	43.67
Mexico	12.21	11.60	8.97	6.20	3.88	20.14	22.74	23.07	20.54	18.61	59.73	56.23	57.03	65.78	63.57
Nigeria	56.96	30.01	31.17	33.87	41.14	6.53	6.90	6.63	5.07	3.95	14.97	17.06	10.32	11.31	15.86
S/ Africa	10.03	7.26	5.46	4.11	3.19	21.68	21.82	22.84	20.96	17.73	51.63	52.33	50.77	60.91	65.18

Source: World Development Indicators, 2012.

A number of factors account for the low contributions of the manufacturing sector. These include low level of investments occasioned by the poor infrastructure of the country, lack of necessary raw materials, high cost of finance, hostile business environment, slow judicial process and lack of commitment on the part of previous governments to develop the sector. Thus, the challenge facing Nigeria is the urgent need to accelerate the pace of manufacturing activities in

the country with a view to diversifying the economy and also to ensure that the country at least keeps pace with other emerging economies both in Africa and in the globe to achieve sustainable development. This is one of the reasons for the introduction of Economic Recovery and Growth Plan by the Buhari administration in April 2017.

Human capital development and even distribution of skilled labour among sectors that drive SD are key to economic diversification. The results of the NBS quarterly surveys in 2012 to first quarter of 2016 showed that the Nigerian economy generated over 4.61 million jobs (Table 3). It also indicates that the jobs were created by the informal sector of the economy with 95.4 percent in the 4th quarter of 2015 and 76.8 percent in the 4th quarter of 2016, however, prospects of generating more jobs in the Nigerian economy depend largely on addressing a range of sectoral issues, particularly in labour intensive sectors such as agriculture, manufacturing, housing, building and construction and sports.

Table 3: New Job Created (Q3&4, 2012 – Q1- 2016)

New Jobs Created Quarter 3 & 4, 2012 - Quarters 1- 2016					
Sector	Q3&4, 2012	2013	2014	2015	**Q1 2016**
Formal Jobs	316,311	432,720	438,263	250,929	**21,477**
Informal Jobs	449,279	628,845	759,896	1,321.559	**61,026**
Public Sector Jobs	47,619	102,201	20,893	12,651	**-3,038**
Total New Jobs	**813,209**	**1,163,766**	**1,219,052**	**1,334,210**	**79,465**

Source: NBS, Job Creation Survey

NISER (2013) study on economic diversification ranked agriculture as the most important sector requiring government attention. 77.8 per cent of the entire respondents recommended this sector for priority attention. Manufacturing and solid minerals rank 2nd and 3rd while human capital development and tourism are ranked 4th and 5th. Expectedly, Oil and gas which has dominated the nation's GDP was ranked the least sector having potential for diversification. Consequently, strong macro-economic variables are also needed for economic diversification in any economy (Okuwa and Campbell, 2018)

18. Economic Diversification (ED) and Sustainable Development (SD)

Generally, sustainable development can be categorized in terms of three main components: Ecological, Economic and Social/Cultural Sustainability. The economic sustainability has to do with meeting the poor's basic needs thus reducing poverty. Ecological sustainability ensures environmental sustainability while social sustainability deals with expanding the environment's ability to meet people's needs by improving technology and social organization/equity both within and all generations. The investment in human beings comes in promptly here, as knowledge acquisition is key here. The need for ED stems from two major reasons: i) The volatile nature of oil prices hinder development. ii) It is essential for the long-run growth of the country. We proceed to consider the lessons for Nigeria on evaluation of ED for SD from across Gulf Corporation Council (GCC): Bahrain, Kuwait,

Oman, Qatar, Kingdom of Saudi Arabia (KSA), United Arab Emirates (UAE); Group of Seven (G7) Economies and Transformation Economies: Hong kong, Ireland, New Zealand, Norway, Singapore, South Korea. These are economies that have heavily invested in oil and gas, so they ended up facing a daunting challenge of volatility in prices in the world market and this forced them to diversify in order to ensure the creation of sustainable cities. Some researchers have considered how ED can reduce this identified nation's economic volatility and increase its real activity performance. Two key findings emanated from this empirical study: i. Gross Domestic Product (GDP) should be distributed across sectors. ii. Majority of the working population are engaged in sectors that are supporting other economic sectors rather than driving economic growth by themselves. This type of labour distribution does not enhance economic growth and development. This is the case in Nigeria. Overall volatility and its ensuing spillover effects can be mitigated with the effective development and diversification of high value-added exports. Finally, volatility minimization and risk adjusted real activity can be largely achieved with increased ED (Okuwa and Campbell, 2018).

19. Human Capital Development and Poverty Reduction

Mr. Vice-Chancellor Sir, policymakers and academicians have long viewed human capital development as a vital tool for economic growth and poverty reduction in any nation. The key to poverty reduction and economic development according to Philbin (1996) involves ability of a nation to engage in adequate capacity building which has to do with improving people's cognitive and non-cognitive

abilities and their health as well. This involves processes of developing and strengthening the skills, knowledge, abilities and resources that organizations and communities need to survive, adapt, and thrive in the fast-changing world. These qualities affect possibilities of earning current and future money income. Investment in education allows the poor to escape from poverty. It also increases the ability of an individual and makes them more productive and efficient. The assumption is that the higher the productivity of an individual, the higher the returns that accrues. Sustaining growth and making it inclusive requires innovative solutions and efficient investments in human capital development. Developing and utilizing education skills, health and other knowledge serves as a crucial determinant of a nation's productivity and their standard of living. This is excessively illustrated by the outstanding records of Japan, Taiwan, Hong Kong, South Korea, and other fast-growing Asian economies as most of them lack natural resource which is believed to be a major determinant of economic performance. Nevertheless, these nations have managed to grow extremely rapidly in significant part because they have had a well-trained, educated, healthy and hard-working labour force.

Surprisingly, despite this acknowledged importance of human capital development, the developing countries of the sub-Saharan Africa (SSA) especially Nigeria, still lack behind other regions in human capital development with the gap widening over time. The country continues to be faced with high levels of extreme poverty, high annual population growth rate, a life expectancy that is among the lowest in the world, and a very low youth literacy rate. Nigeria as a

country is said to have failed all poverty tests using various poverty measurement standards such as the absolute poverty measure which puts the country's poverty profile at 60.9%; the dollar per day measure puts the poverty profile at 61.2% and the subjective measure puts the poverty profile at 93.9%. A recent indicator which is the Harmonized National Living Standard Survey (HNLSS) puts the country's poverty profile at 69.0% (Okoroafor, and Nwaeze, 2013).

A United Nations Report, in 2016, puts it that, out of 188 countries studied in terms of living standards, Nigeria was ranked 152nd with an unemployment rate of 42% of the population and 80 million citizens survive on only $1.25 per day, meaning, they stepped beyond the poverty line. Nigeria is also said to rank among the 25 poorest countries of the world according to United Nation Development Program Human Development Report (2008-2009) despite its vast human and natural resources. A recent publication by the World Poverty Clock of the World Data Lab in Vienna, Austria stated that Nigeria has overtaken India as the country with the largest number of people living in extreme poverty in the world. According to the statistics breakdown, 44.2 per cent of Nigeria's population (about 86.9 million people) live in extreme poverty. This means they live below $2 (684.95) per day.

Successive government administrations at various times have implemented different chains of policies and programmes such as: Operation Feed the Nation, Rural Banking Scheme and Austerity Measures by Olusegun Obasanjo's administration, 1976-1979; the Green Revolution by Shehu Shagari in 1980; War Against Indiscipline and Corruption by Gen Muhammadu Buhari in 1983;

the establishment of Peoples Bank, Directorate of Foods Roads and Rural Infrastructure (DFRRI), Nigerian Agricultural Land Development Authority (NALDA), National Directorate of Employment (NDE) and Family Support Program (FSP) by Babangida administration, 1986-1993; Family Economic Advancement Programme (FEAP) by the administration of Late Gen Sani Abacha in 1997; National Poverty Eradication Program (NAPEP) of 1999; and National Economic Empowerment and Development Strategy 1 and 2 (NEEDS). A more recent one is the N-Power programme of President Muhammadu Buhari's administration. These were all aimed at improving the economic and social conditions of the unprotected part of the population in an effort to reduce level of severe poverty in the country. All these has increased the volume of public spending in Nigeria, for instance on education and health, which is believed to translate into human capital development.

It is not clear if these policies have yielded any remarkable reduction in the country's poverty profile; increased productivity; income; improved health and fitness, prompting a question on how has development of human capital affected poverty reduction and inclusive growth in Nigeria. Even though, several studies have examined poverty reduction and its effect on economic growth with varying results which may have resulted from their failure to account for component of human development index that could constitute appreciable differences in the relationship between the two variables. A study conducted by Campbell and Ojo (2021) examined the effect of human capital development on poverty reduction in Nigeria. It utilized both descriptive and inferential statistics to capture the nature of relationship existing between human capital development and

poverty reduction in Nigeria. Results indicate a positive relationship between human capital development and poverty reduction in Nigeria. This implies that providing equal opportunities for inclusive growth and poverty reduction requires vibrant investment in human capital in other to increase employment opportunities and competitiveness and support for private sector engagement.

Policy Recommendations

Mr Vice-Chancellor, Sir, I proceed to proffer the following recommendations for our policy makers in order to ensure an unlimited access to sustainable inclusive growth through gross investment in human beings.

1. **Diversification of the Productive Base of the Economy**: Policy makers should ensure that they seek to diversify the productive base of the economy in terms of economic output and input distributions. Public and private stakeholders in the country should ensure the injection of labour and capital into productive economic sectors that can sustain real growth in the long run. This will involve the development of new knowledge and technology which will ensure the exportation of a wide range of high-value-added goods and services to a wide range of destination. This will stimulate and entrench innovation. This action can only be possible if government endeavours to invest significantly in all levels of education with special emphasis on higher education.
2. **Consistent enhancement of productivity and competitiveness levels of the economic base**: Making strategic investments in sectors and value chains where there is competitive advantage,

market opportunity and growth potential will involve enhancing appropriate investment in human capital. This will involve increasing quality of education at all levels and importing skilled talents where necessary. The competitiveness of economies is increasingly dependent on their capability to create, use and diffuse knowledge.

3. **Industry-University Linkage**: An efficient innovation system made up of firms, research centres, universities, consultants and other organizations should be encouraged, they can tap into the growing stock of global knowledge, adapt it to local needs and create new technological solutions. It is only an educated and appropriately trained population that is capable of creating, sharing and using knowledge for economic diversification that will foster sustainable development. The innovation indicators include; capacity for information mobilization, quality of scientific research institutions, spending on research and development (R&D), University – Industry collaboration in R&D, government procurement of advanced technology products and so on. The Nigeria's products are yet to compete favorably with the rest of the world markets. This confirms the fact that a nation's competitiveness and prosperity depend on the capacity of its industries to innovate and upgrade despite its resource endowments. Also, there is the urgent need for alignment of existing curricula and the development of new curricula of various programmes in tertiary institutions to match the needs of the manufacturing sector in research and innovation.

4. **Urgent review of government's budgetary allocation to education**: Investment in education should be the priority of the government since the multiplier effect of this singular action is germane to economic growth and development. The share of education in total government expenditure is still very low compared to 26% recommended by UNESCO. The Education Index (EI) is an indicator that rates the educated and appropriately trained population and the capability of that population to create, share and use knowledge. Nigeria's EI was 2.20 in 2012 which can still be categorized as low when compared with the UNESCO's benchmark of 0 = lowest and 10 for the highest EI. Nigeria ranks 118 out of 140 countries.
5. **The Human Development Index**: For economic diversification to be possible, Human Development Index (HDI) for any economy must reflect long, healthy life and basic standard of living of the general populace in Nigeria. HDI stood as 0.50 and 0.51 in 2012 and 2014 respectively (no appreciable increase in recent years). This is very low when compared with the HDI rankings of the sampled emerging and developed nations. This is however supposed to be a great concern for the government if economic diversification will be possible and sustained.
6. **Inclusive Education and Learning Systems**: More inclusive education and learning systems require educational institutions to improve access and affordability for excluded groups by lowering cost barriers and bringing schools closer to the marginalized communities. The TETFUND issue comes in here. It is high time the federal government give scholarship

awards to brilliant students who secure admission into private institutions of higher learning. Our policy makers should remember that students who graduate from private tertiary institutions will in the long run end up supplying their labour in both the public and private sectors of the Nigerian economy. Also, academic staff in private tertiary institutions should be allowed to partake of all other benefits accruable to their counterparts in the public tertiary institutions, from TETFUND concerning sponsorship of researches that their outputs will translate to quantitative and qualitative productivity in the economy. Furthermore, initiatives should be put in place to improve the learning environment by deploying skilled teachers equitably, targeting financial and learning support for disadvantaged schools.

Concluding Remarks

Mr. Vice-Chancellor Sir, distinguished audience, this lecture has been able to expose the fact that investment in human capital is germane to economic growth, economic diversification, economic development and environmental sustainability among others. However, considering the preparedness of the Nigerian government for a smooth transition to an inclusive growth economy and realizing the sustainable development goals 1,4,5,8, is still very far from reality. The budgetary allocation of the federal government to education and health is yet to comply with the stipulated benchmark of UNESCO and WHO respectively. It is unfortunate that while efforts are being geared

towards achieving the Sustainable Development Goals in the world, many children in Nigeria are not enrolled in schools. USAID report reveals that out of 30 million primary school age children in Nigeria, an estimated 10 million children are not enrolled in school. This report was corroborated by the National Literacy Survey, conducted recently in Nigeria which indicates that close to 3 million children, aged 6-14 years, i.e., 8.1 percent of the population of children in that age group had never attended school. It was only in 2006, 2008, 2013-15, that Nigerian government allocated barely close to half of the budgetary allocation benchmark recommendation of 26 percent by UNESCO, for all countries in the world.

Furthermore, the World Education Forum, 2000, Dakar, recommended that governments should ensure that at least 7 percent of Gross Domestic Product (GDP) is allocated to education within 5 years and 9 percent within 10 years. Nigerian government has also failed to fulfill this minimum benchmark requirement. The global organizations recommended the budgetary benchmarks to enable nations adequately cater for rising education demands. Nigeria ranked last among 20 countries selected by the World Bank to assess their percentage allocation to education from the country's Gross National Product. Adult Literacy Rate for Nigeria in 2013 was 61.3 percent (no appreciable improvement even in recent years). This ranked Nigeria last among some selected countries from different regions in the world. This is an indication that the education sector has not been given the needed attention by Nigerian government. As regards budgetary allocation to health in Nigeria, the World Health

Organization recommended that 15 percent of government total expenditure is to be assigned to the health sector. This has not been achieved by the government considering the available data between 1999 and 2019. Recurrent expenditure dominates the expenditure pattern of government on health. This country still lacks behind other countries in sub-Saharan Africa, in human capital development with the gap widening over time. The country continues to be faced with high levels of extreme poverty (which is of course, part of the germane factors responsible for gross insecurity threats in Nigeria presently), high annual population growth rate, a life expectancy that is among the lowest in the world, a very low youth literacy rate among others. With the investment in human beings remaining a recurring variable in all the issues identified and discussed in this lecture, you will all agree with me that human capital development remains very significant to the attainment of a broad-based growth (inclusive growth). Of a truth, no nation can develop beyond her investment in education. Furthermore, it becomes clear that investment in human capital via its integrals, obviously possesses the capacity to provide and ensure an **unlimited access (ILLIMITATA ACCESSUM)** to sustainable development of a nation. Hence, the commitment of the government at all levels to several initiatives on human capital development will be a step in the right direction to fight against abject poverty and social exclusion in Nigeria. This will without doubt drive structural transformation of the economy.

MY OTHER CONTRIBUTIONS

Postgraduate Teaching and Supervision

Mr. Vice-Chancellor Sir, over these twenty-seven (27) years of higher education teaching and research experience, I have actively participated in training of more than five thousand undergraduate students in Economics and over one thousand five hundred Master of Science students in Economics for the country. Furthermore, I have successfully supervised more than two hundred Master of Science in Economics students (including post-graduate diploma) thesis to successful completion. I have successfully co-supervised the dissertation thesis of one PhD student to completion and currently rounding off supervision of another.

Presently, three of my colleagues in the Department of Economics: Drs Esther Aderinto, Tolulope Ogunro and Bunmi Oduyoye-Ejumedia were at one time or the other my undergraduate and post graduate students. It is noteworthy that many of my one-time undergraduate and postgraduate students are also gainfully employed in various sectors of the Nigerian economy, while some are even in the diaspora making tangible impact at various spheres.

Training Programmes, Guest Lectures and Research Activities

I have actively participated in intensive training programs organized by National Centre for Economic Management (NCEMA) on "Macroeconomic Framework: Closed and Open Economy" basically meant to expose and fine-tune policy makers view, while broadening their horizon on policy formulation and implementation at the governance arena.

I was a guest lecturer on "Dimensions of International Business" which was organized for the MBA class at Rockford College, Illinois, Chicago, United States of America in 2010. I have also functioned as country sub-reviewer for United Nations Economic Commission (UNECA) country project on Gender Equality and Economic Development in 2014. Furthermore, in 2018, I participated as Co-Copy Editor, "Accelerating Social Protection" Report of the Social Protection Inter-State Study Tour Hosted by the State of Osun and sponsored by UNICEF.

In October, 2018, I served as Reviewer and Discussant, at NISER Research Seminar Series (NRSS), Topic: "More Inclusive Growth, Youths and Job Creation in Nigeria". While in July, 2016, I was a discussant at a one-day round-table discussion organized by the Institute of African Studies, University of Ibadan on "Survival Strategies in Contemporary Nigeria- An Economic Perspective".

External Assessor

I have served as an assessor to Appointments and Promotions of professorial candidates in University of Port Harcourt, in March, 2019 and National Open University in February, 2021.

Capacity Building and Scholarship

Mr. Vice-Chancellor Sir, as a visiting scholar on sabbatical leave at the Department of Economics and Development Studies, Covenant University, Ota during the 2013/2014 academic session, I served as internal examiner, severally and actively at the post-graduate seminar

series. I was also opportune to be actively involved in the School of Postgraduate Studies programme organized for selected representatives from various departments. It is worthy to mention that I ensured I jointly published the research outcomes of two of my supervisees in international journals before the completion of my tenure as a visiting scholar. Without doubt, my stay at Covenant University was very eventful. I serve as reviewer for various reputable peer-review journals.

Key Services to the University Community

Mr. Vice-Chancellor Sir, I have served meritoriously and I am still serving the Lead City University, Ibadan in various capacities through numerous avenues which include the following:

1. Member, Lead City University Governing Council 2016 to Date
2. Dean, Faculty of Management and Social Sciences, 2019 to Date
3. Chairperson, Faculty of Management and Social Sciences Appointments and Promotions Committee.
4. Member of Senate – 2008 to Date
5. Chairperson Committee on Thesis Supervision Assessment, 2021
6. Member, Lead City University Ceremonial Committee, 2016 to Date
7. Sub Dean, Faculty of Management and Social Sciences, several sessions

8. Active Member, University Research Committee
9. Head, Department of Economics
10. Staff Adviser, Nigerian Economic Students' Association
11. Member, Fresh Students Admission Interviewing Panel 2006 – 2008

Acknowledgments

Mr. Vice-Chancellor Sir, distinguished ladies and gentlemen, permit me to give thanks to my father in heaven for granting me the opportunity to deliver the 12th inaugural lecture of Lead City University, Ibadan. I appreciate my loving parents, Late Mr. Emmanuel Olusegun Sodeke and Late Mrs Lydia Omowunmi Sodeke who both gave me sound educational background. My profound and eternal gratitude goes to my loving, caring, committed, devoted, humble and God-fearing husband Dr. Babatunde George Campbell of blessed memory. A professional of repute in God's chosen sphere of influence. A brilliant medical practitioner, a family physician par excellent. I posthumously appreciate you for your unreserved support all through my academic sojourn. **You are supposed to be here today but "Bo ti wun Olorun lo'n sola e".**

I am immensely grateful to the entire Management Staff of Lead City University: The Vice- Chancellor, Prof Kabiru Aderemi Adeyemo; the Registrar, Dr. Oyebola Ayeni; the Bursar, Mrs Kunbi Taiwo-Taiwo and the University Librarian, Mr. Lanre Osaniyi, for their moral support and being part of my success story. I sincerely appreciate the Chairman, Governing Council, Professor 'Jide

Owoeye. He gave me the opportunity to serve in this citadel of learning shortly before the institution was given an operating license in March, 2005. Since then, he has helped me tremendously, to bring out the best in me over these years and reach the peak of my career. Sir, the good Lord will never leave you nor forsake you. He will always meet you and all yours at the very point of your needs.

I can't but thank the pioneer Vice-Chancellor of this honorable institution, Professor Johnson Aladekomo, for his fatherly role and concern for my academic progress from time to time. Professors William Akerele, Alaba Ogunsanwo and Adetanwa Odebiyi, deserve special recognition for the loving fatherly and motherly roles they played at one time or the other, while serving in various capacities in my academic and professional sojourn. May the Lord lengthen your days in good health and sound mind in the Mighty name of Jesus. Professors: Donald Odeleye, (Dean Faculty of Arts and Education), Olusola Ladokun, (Dean, Faculty of Basic Medical and Applied Sciences, Lambert Ihebuzor, (Dean, Faculty of Library and Information Sciences), Afolakemi Oredein (Dean, Postgraduate School), Grace Oloukoi (Dean, Faculty of Environmental Design and Management), Dr. Foluke Abimbola (Dean Faculty of Law), Dr. Adekolarin Adewole (Director, Academic Planning) and Dr. Retta Akingbade. I sincerely appreciate you all for the brotherly and sisterly relationships we have maintained and sustained over these years.

This acknowledgement will be incomplete without appreciating the contributions of Professor Olanrewaju Olaniyan of the Department of Economics, University of Ibadan. He doubles up as the Director,

CESDEV, University of Ibadan. He painstakingly contributed immensely to my PhD thesis. The efforts of Professors Joel Babalola, Olugbenga Adedeji, Odekunle and Ben Emunemu, Dr. Oluwakemi Okuwa and the entire Higher Education Research and Policy Network family cannot be overlooked. Thank you for your unreserved support and show of love at all times. The Lord bless you all.

Mr. Vice-Chancellor Sir, of a truth life is about relationships. Thus, I acknowledge sincerely my colleagues in the Department of Economics, the Dean's office and other colleagues in other departments in the Faculty of Management and Social Sciences, Lead City University, for your love and support in diverse ways. I sincerely thank you all. Many thanks to the non-academic staff of this great citadel of learning. You are all wonderful people. Every office I enter, I have a friend. This is an indication of the extent to which you have accepted me over these years. The Lord bless you all in all your endeavours.

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and the Institute of Research for Global Business, Illinois. I am profoundly grateful for your academic impact in my career.

My profound and heartfelt thanks go to my beloved sons, daughter and granddaughter: Aderinola, Unini, Oluwaseun, Oluwatobi and Tiwaladeoluwa Campbell. You've all been so wonderful and even the best, for the love you shower on me at all times. I must also recognize my siblings and their spouses: Mrs Fehintola Akinbobola, Mrs. Temitope Ebize-Tititi, Mrs. Olusola Otunuga and Mrs Bolade Agboola. Thank you for your prayers and moral support at all times. Ruth Oni, my adopted daughter, you are not left out. I really appreciate you for your support at all times at the domestic arena. The Lord bless you abundantly. My in-laws, Professor and Professor (Mrs) Odaibo, my Pastors and friends from Vine Branch Ministries are sincerely appreciated for their prayers, moral support and show of love at all times. Members of the Board of Directors, Babatunde, George Campbell Foundation (BGCF), I will forever be grateful to you all. With the help of God, assisting me to fulfil the vision and mission of this foundation is majorly what has been helping me to gradually keep moving on with my life. My prayer is that the good Lord that we serve will continue in His infinite mercies to honor you and all yours.

Mr. Vice-Chancellor Sir, distinguished ladies and gentlemen, I thank you all for your time and attention.

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Bio-data of Professor Omolara Ayotunde Campbell

Campbell Omolara Ayotunde is a Professor of Development Economics, Lead City University, Ibadan. She had her nursery and primary education, as a young girl child at the Alafia Institute Nursery and Primary School, Mokola, Ibadan. Oyo State. However, due to the relocation of her humble parents to their house located at Akinyemi Way, Ring Road, Ibadan, she was transferred to Sacred Heart Private School, Ring-Road, Ibadan, where she joined in Primary three. Omolara completed her primary education between 1973-1976 and proceeded to St. Teresa's College, Oke-Ado, Ibadan for her secondary education through an admission that came with ease. This was between 1976-1981. Furthermore, still in the quest for academic progress, she gained admission into the International School, University of Ibadan, between 1982 -1984, for the Advanced Level Programme which she passed with very good grades. Precisely, by December, 1st, 1984, Omolara gained admission into the Department of Economics, Faculty of the Social Sciences, University of Ibadan. By July, 1987, she obtained a B.Sc. (Hons) Economics.

Omolara proceeded for Youth Service in Wema Bank Plc, Mokola, Ibadan between August, 1987-1988. After the youth service year, her dedication to all assignments given her as a youth corper earned her a permanent appointment in the Orile Iganmu Branch of Wema Bank, Lagos State. This offer she turned down voluntarily for some cogent reasons. During her youth service year, God in His infinite mercy made her path to cross that of a young professional,

Babatunde Campbell. He believed so much in her and she also believed in him too. This relationship led to her getting married early in November, 1989. Omolara's early marriage forced her into a break in her academic pursuit, but she never lost focus of her dream of becoming a woman of repute in life. By October, 1991, she commenced tertiary education teaching and research career at the Adeyemi College of Education, Ondo. Shortly after this appointment, she immediately "rolled up her sleeves" and registered for a Master's programme at the Department of Economics, Obafemi Awolowo University, Ile Ife, precisely, 1994. This was meant to be a two-year programme but "guess what", the eleven of them in that set, all graduated in late 1996 and they convocated in 1997 and their certificates read October, 1997. "Kudos to the usual ASUU Strike". To the glory of God, Omolara was able to complete the programme despite ALL CHALLENGES which will be spared this audience for another day.

By September 1998, her family relocated to Ibadan, Oyo State. Settling down with three sons then and proceeding to have a doctorate degree in Economics took a while. However, around August, 1999, she got employed as an adjunct lecturer of Economics in the then Ambrose Alli University Satellite Campus, USIS building, Bodija, Ibadan. This singular action assisted her to retrace her steps back into tertiary education career. All efforts to get enrolled for a PhD programme in Economics, University of Ibadan, came with one hurdle or the other. Rather, she got admission for an M.Phil./PhD programme in

Agricultural Economics in the University of Ibadan. This she was not really interested in. While still deciding on whether to pick up the admission or not, she got the opportunity of being employed as a full-time academic member of staff in Lead City University, shortly before the institution was licensed in the year 2005, as one of the pioneer academic member of staff. Before this appointment, she decided to register for a Master of Educational Management (Planning and Policy) at the University of Ibadan.

Around April, 2006, a National Universities Commission Visitation team was in Lead City University. The team led by Professor Placid Njoku met with the Pioneer Vice-Chancellor of the University, Professor Johnson Aladekomo and the academic members of staff. The team encouraged the management of the institution to leverage on "sister institutions" around her locality and mount a Staff Development Programme which will enable majority of the academic members of staff then without PhD degrees to register immediately. Thank God for good husbands. While majority of the affected members of staff were still deciding on whether to seize this opportunity or not, her husband encouraged her to register immediately. He is not an illiterate but a sound medical practitioner who trained from Lagos University Teaching Hospital (LUTH), Idi-Araba. In his words "go ahead, you have a very solid background already". She took up the challenge, remained focused and the rest is history as God showed up as usual for her. The programme took four good years after which she was awarded the PhD degree in Economics

in 2010. Extracts from the PhD thesis was presented at an International Conference in faraway Chicago, United States of America and was adjudged the best among other papers presented, and given a "Best Paper Award".

Omolara has leveraged on this great performance and participated in many more National and International Conferences, Workshops and Seminars for over twenty-seven years. She has also published appreciable number of articles and chapters in books in the areas of Development Economics, Human Capital Development and Gender related Issues, in reputable peer-reviewed local, international journals and books. She is the author of the book titled "Basics of Economics (With Reference to the Nigerian Economy). Omolara possesses appreciable experience over these years in tertiary education teaching, research and educational administration. Omolara served as Co-ordinator, Acting Head and substantive Head of Department of Economics, for several academic sessions, both in Adeyemi College of Education (Degree Awarding) and Lead City University. She also served as Sub-Dean of the then Faculty of Management and Entrepreneurial Studies, now Faculty of Management and Social Sciences for several academic sessions. During her tenure as Head of Department, she had the opportunity to present the Department of Economics to the National Universities Commission, (NUC), for accreditation. The department earned full accreditation. Furthermore, the accreditation team from the NUC, during their exit meeting with the Management of Lead City

University, highly recommended her co-ordination and mode of presentation of the academic activities in the department. Omolara was a one-time Faculty Manager, Faculty of Management and Entrepreneurial Studies (2006/2007 Academic Session). In October, 2019, she became the Dean, Faculty of Management and Social Sciences, till date.

Omolara is an active member of reputable professional bodies which include: American Economic Association (AEA), Nigerian Economic Society (Life Membership) FM. 3242, Higher Education Research and Policy Network (HERPNET), Institute of Research on Global Business (IRGB), Rockford, Illinois, USA, Centre for Development Policy and Management (WCDPAM), African Growth and Development Policy Modeling Consortium (AGRODEP) and Association of African Women Economists (AAWE), among others. She also doubles up as Associate Editor, Journal of the Academy of Business and Public Policy, Chicago, USA, Member, Editorial Board of Journal of Management Skills and Techniques, Lead City University, Ibadan. Member, Institute of Research on Global Business (IRGB), USA, Member, Steering Committee of Higher Education Research and Policy Network. (HERPNET), Nigeria, Chairman, Conference Communique Issuing Committee of the Institute of Research for Global Business. University of Uyo, Akwa Ibom, Nigeria, Member, Editorial Board, Journal of Modern Economy (ME), Scientific Research Publishing. Above all, Omolara is a member of the Lead City University, Governing Council.

Omolara was on Sabbatical Appointment at Covenant University in 2013. The display of her wealth of experience in tertiary education teaching and research at both the undergraduate and postgraduate levels was appreciated by the management and staff of the institution. This was properly documented by the then Registrar of the institution. Still in the pursuit of excellent exposure for her students, she was actively involved in planned linkage programme in Economics between Lead City University and the University of Rhode Island (URI), United States of America.

Apart from her present role as Dean, Faculty of Management and Social Sciences, Omolara serves as external assessor to both public and private Universities in Nigeria. She was an active participant in the "Review of NUC Instrument for ODL Accreditation" between 23rd-28th February, 2019. She also participated actively in the "Review of NUC Curriculum for Undergraduate Programme in Economics in Nigerian Universities in February, 2020. She is a member of the Lead City Research Cluster and University Research Committee. She participated as a Co-Copy Editor, "Accelerating Social Protection" Report of the Social Protection Inter State Study Tour Hosted by the State of Osun and sponsored by UNICEF, 2018, Country sub-Reviewer, Empower Women Benefit for All (EWA) - United Nations Economic Commission (UNECA) Country Project on Gender Equality and Development, Guest

Lecturer on "Dimensions of International Business", MBA Class at Rockford College, Illinois, Chicago, United States of America, 30th September, 2010, among others.

Omolara is happily married and the union in blessed with three lovely grown up children and an adorable grand-daughter.

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