

Country Presentation 23.

# The Promotion of Youth Invention/Innovation, Empowerment/Employment and Liberal Development {PRO-YIELD) in Nigeria through Science and Technology Parks

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## 1.0 ABSTRACT

This paper presents that 80% of Nigerian youths are unemployed, with primary and secondary school graduates mostly found among unemployed rural population accounting for about 40%, while university and polytechnic graduates make up the remaining 40%. What seems to be more worrisome is the fact that the nation's universities and polytechnics continue to churn out more than 150,000 graduates annually and available jobs remain inadequate to keep pace with the ever-expanding army of jobseekers. This paper emphasizes that since all the graduates of Nigerian tertiary institutions embarked on final year projects before graduation, employment can be generated through the establishment of Science and Technology Parks in all the institutions and other local areas to incubate and harness for commercialization to the fullest, the novel and innovative works as Small and Medium Enterprises powered by a dedicated government office in Nigeria. •

## 2.0 STATEMENT OF THE PROBLEM

Nigeria yearly graduates youths with final year Research and Development projects from over 141 Universities, 125 Mono-Polytechnics, 98 Colleges Of Education in the midst of over 300 Research Institutions, Industrial capacities, Research capabilities (Inventors, Innovators, Investors, Professors, PhDs,

Professional bodies and Diaspora capacity) but yet worse hit by unemployment. The situation in Nigeria is that most of the novel, locally satisfying innovations/inventions and far reaching research outputs were allowed to waste away while the youths who carried out these researches eke a living seeking white-collar job if he/she is lucky to just have one.

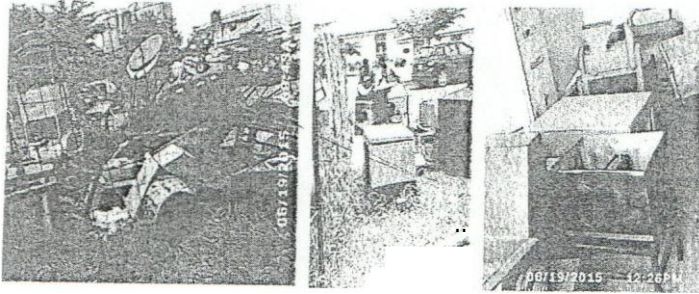


Plate Ia: Abandoned Innovations in Nigerian Higher Institutions

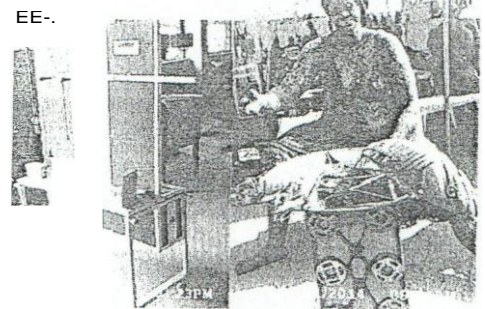


Plate Ib: Creative Innovations that could employ Nigerian Youths if commercialized by institutions

### 3.0 INTRODUCTION

Youth unemployment remains one of the most critical problems facing Nigeria today despite boom in the fortunes of the country's main means of oil income in the midst of all other natural resources and abundant human resources. This trend is occurring at a time when science and technology is moving ever faster and transforming the labour market in the various frequencies. At the just concluded World Economic Forum in Davos, Switzerland, youth unemployment took centre stage where global business and public sector leaders Davos engaged in debate about the growing youth unemployment which many have said is growing in an uncomfortable proportion. According to the Nigerian Vanguard Newspapers (2015), the panel discussion was made up of Nik Gowing, Omar K. Alghanim, Dominic Barton, Aliko Dangote and Fatima Muneer. Reportedly Mr. Dominic Barton, Global Managing Director, McKinsey & Company, United Kingdom who took the lead in the discussion said "There is a sense that youth un.employment is more of a cocktail conversation right now but we need to start seeing this as a pandemic. „In Nigeria, youth unemployment is as high over 50%. From Abuja to Seattle, the number of jobless youth is a global phenomenon. This issue might not be dominating global headlines, but Aliko Dangote, President and Chief Executive Officer, Dangote Group, Nigeria and a major private employer of labour in the country signalled that "our entire society is in danger of destruction" unless we pay attention to this huge problem.

According to Panellists at the Forum "This trend is occurring at a time when technology is moving ever faster and transforming the labour market playing a larger role in the economy, therefore the bold steps jobs creation for young people will invariably take a hit. It is pertinent perhaps considering employment as participating in the economy because companies such as Uber, Airbnb or budding entrepreneurs in India learning skills from YouTube and later monetized this knowledge at the local markets. These are examples

some of the ways to understand the participatory economic model. The McKinsey new problems call for fresh approaches and at the core of the youth unemployment problem is a glaring skills gap (Vanguard, 2015). Surveys by McKinsey show that 75 per cent of university professors and higher institutions believe they are adequately preparing their students for the workforce but realities on ground conspicuously suggest otherwise.

Nigeria's population is said to have reached about 167 million people in 2012 (National Bureau of Statistics). The National Population Commission (NPoC, 2013) states about half of the population is made up of youth, defined as individuals between 15 and 34 years of age. Unfortunately, as the youth population grows, so does the unemployment rate. In fact, unemployed youth numbered about 11.1 million in 2012. Here I shall explore a trend in youth unemployment in **Nigeria** relatedly in terms of education. From 2008-2012, over half of unemployed youth did not have an education past primary school as shown in figure 1. This particular group has consistently accounted for over 50 per cent of all unemployed youth with graduates of tertiary institutions making up substantive per cent of youth unemployment lots and often remaining so for upward of five years after graduation (NISER, 2013).

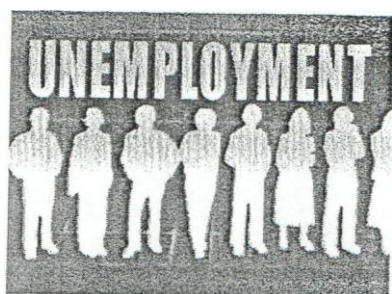
According to Falusi,(2014) ascertaining policies that have worked in addressing unemployment in Nigeria is rather difficult in light of the incredibly high and rising unemployment rate in which at least around 1.8 million youth are entering the labour market every year .He further stated that it is unclear to what extent any given intervention may have reduced the youth unemployment rate in aggregate, but what this paper presents is more helpful effective policies that will definitely deliver on their stated objectives if the program is systematically and sustainably implemented to indicates success.

In his presentation, Tunji,(2014) explained that public policies directed at addressing youth unemployment have faced different challenges including finance, the absence of good administration and implementation, inconsistent policies, unimpressive responses from would-be trainees, and unqualified resource personnel handling the training programs. According to a recent survey by the Nigerian Institute of Social and Economic Research NISER, 2013, youth unemployment programs have concentrated more on training than on other activities that actually provide openings for immediate employment in white-collar jobs or jobs in the small- and medium-scale industries (NISER, 2013). This strategy has not yielded the desired results because the training is often not accompanied by soft loans, which graduating trainees could use as start-up capital in order to facilitate their quick integration into the labour market. Targeting has also presented a challenge. Often, all categories of unemployed youth are lumped together as if they are homogeneous (in terms of education, skill, capabilities, etc.) when, in fact, there ought to be distinctions on the basis of education, experience, and willingness to learn. The lumping together of graduates of primary school with those coming out of secondary schools and/or tertiary institutions

makes training not only ineffective but also less impactful. Another reason might be that policymakers have had to confront inadequate information and data that can form the basis of effective planning.

As reported in other studies (Asaju et al., 2014 and Iwayemi, 2014), employment data are very hard to obtain, even from statutory institutions and agencies established for gathering socio-economic data. Where unemployment registers exist at all, they are limited to urban areas, and, in fact, not all those searching for employment attempt to register. In the absence of such data, policymakers tend to rely on cross-sectional household surveys, which are often inconsistent and full of errors. This lack of data makes it difficult for policymakers to understand the nature of the employment challenge and make informed decisions on how to support young people in the labour market. The scarcity of data on informal employment and entrepreneurship in particular is a major obstacle, given the importance of this sector for youth employment. The initiatives listed earlier simply bring a select group of youth into employment, but are grossly inadequate to accommodate the army of unemployed youth. Besides, these programs are conceived **with** short-term gains in mind, and a little consideration of long-term perspective that may change the dynamics of unemployment substantially. The structural changes needed involve taking a comprehensive approach to employment issues in general. This could be done in a way that it does not only targets youths, but will also look at educational, training and labour market issues so that dynamic and progressive policy interventions are initiated to address all issues comprehensively.

Recently, various public policies had encouraged youth to undertake entrepreneurship, which can make them create employment for themselves and also become employers of labour and at the long-run; the educational and the industrial sector must also expand to create opportunities for youth based on available local resources in agriculture, solid mineral exploitation as well as value chain activities in those research outputs from the tertiary institution. The establishment of science and Technology parks in relevant places and the development of infrastructure, particularly electricity, will provide the necessary boost to any meaningful approach towards expanding industrial production space and creating employment for millions of job seekers, especially Nigerian youths.



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**Figure 1: Nigerian Youth Unemployment in term of Educational inclinations**

#### 4.0 METHODOLOGY AND SCIENCE AND TECHNOLOGY PARKS AS VERITABLE TOOL

Science and Technology park first created on the campus of Stanford University more than 50 year ago transforming the Silicon Valley area from one of the poorest regions in the USA into a global centre of technology, finance, education and research is defined the International Association of Science Parks, IASP (2002) an organization managed by specialised professionals, whose main aim is to increase the wealth of its community (employment generation) by promoting the culture of innovation and the competitiveness of its associated businesses and knowledge-based institutions. Today, there are over 400 science parks worldwide and their number is still growing. At the top of the list comes the USA, which is reported to have more than 150 science parks. Japan comes next with 111 science parks. China began developing science parks in the mid-1980s and now has around 10,052 of which were approved by the national government and the remainder by local governments while there are very few established in Africa with South Africa highest (5) and others including Nigeria barely have one each. The only one heard of in Nigeria is the proposed science and technology park to be known as Africa Premier Innovation Corridor (APIC) whose agreement was claimed to have been signed some years back.

To reduce the scourge of youths unemployment especially the creative, innovative and ingenious ones in Nigeria, the Government with all sense of responsibilities foster liberal development Programme by:-

- (1) Creating a dedicated office directly under the presidency, State Governors and other related Executives (Office for the Promotion of Youth Inventions/Innovations Empowerment and Liberal Development PRO-YIELD) and well-funded to scout youths with creative, innovative and ingenious Research and Development outputs from all the tertiary institutions, research centres and in the industries across the country.
- (2) Including in its management an active person(s) of vision, with power of decision and with high and visible profile, who is perceived by relevant actors in society as embodying the interface between academia and industry long-term plans and good management.
- (3) The establishment of a Mini Science and Technology Parks in all the higher institutions, research centres and the various geopolitical zone of the country.
- (4) Incubating, harnessing, commercializing and engaging (in form of Innovation SMEs) the Youth inventors/Innovators of these products that satisfy the local needs both as form of employment generation and contributions to National economy and building.
- (5) Establishing contractual, formal or operational relationship with one or more science/research institutions of higher education.

- (6) Encouraging and supports the start-up and incubation of innovation-led, high-growth, knowledge-based businesses promoting the university's research and development through industry partnerships, assisting in the growth of new ventures for Youths and promoting economic development.
- (7) Providing an environment where larger and international businesses can develop specific and close interactions with a particular centre of knowledge creation for their mutual benefits aiding the transfer of technology and business skills between university and industry teams. (8) Promotion of technology-led economic development for all the communities or regions of the country and even beyond by rewarding break through innovations/inventions that solves some domestic problems.

## 5.0 CONCLUSIONS

If all the outlined suggestions are systematically implemented with effective political will in the government policies of Nigeria, youth unemployment will be drastically reduced by over 50% in conclusion of the following;

1. Strategies for promoting start-ups and small but strong government backed businesses for creative youths would have encouraged viable and competitive spin-offs and start-ups from Nigeria tertiary and research institutions.
8. Local industrial growth and strategies for employment promotion thanks to establishment of science and technology parks would lead to tremendous success and opening up of places and opportunities.
3. Town-Gown relationship will definitely manifest positively for Nigeria National Development intentions and programmes.
4. Sustainability and establishment of cooperative network among Science and technology Parks(STP) in tertiary institutions, research institutes and companies foster development of Small and Medium Size Enterprises (SM Es) and innovative driven capacity building of Nigerian educational institutions via the activation of cooperation of Industry and the Universities/Mono-Polytechnics/Colleges of Education/research institutes.
5. Finally if all the creative, innovative and educated unemployed youths were successfully empowered through the proposed PRO-YIELD platform, the rest who are either secondary or primary school holders could be engaged in the Agricultural and Mining sectors which require little or no educational qualifications and skilled man power through other government job creation programs.

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