

Synergy among Vocational and Technical Education Disciplines: A Strategy for Poverty Reduction, Job Creation, Economic Prosperity and Food Security in Nigeria

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Abstract

The problem of graduate unemployment and poverty in Nigeria is on the rise. The resultant effect is the rise in crime and youth restiveness. The situation has led to disenchantment, and the upsurge of insurgency and insecurity in the country. Yet a lot can be done to tackle the problem of poverty and graduate unemployment in Nigeria. Interdisciplinary synergy that cut across vocational and technical education fields, where experts are utilized to develop a sound programme, in order to develop a viable vocational-based SME sector, in line with the food chain model, is imperative to ameliorating the problem.

Introduction

Graduate unemployment, have become a perennial problem bedeviling the nation, resulting in rise in crime and youth restiveness. The future is full of uncertainty and hopelessness as the number of graduate unemployment continues to increase every year with no hope of securing any job. This has resulted in a state of despair and desperation among graduates who are now beginning to see education as a fruitless venture. The mass media is full of records of unsuccessful government initiatives initiated by numerous governments, developed in tackling the problem of unemployment, yet the level of poverty, unemployment and underemployment continue to increase.

Correlation seems to exist between unemployment, poverty, increase of criminal activities and social vices in Nigeria. The resultant effect of the prevailing situation in Nigeria is disenchantment, and the upsurge of insurgency and insecurity in the society. Ikponmwosa, Izogie and Ebodili (2013) opines that the effect of unemployment can manifest itself in diverse ways to included political tension, insecurity, lack of transparency, poverty, lawlessness and all forms of criminal tendency.

When majority of the people especially the youth are poor due to unemployment or underemployment, the nation can never achieve development that is sustainable. Sustainable development for the citizenry is the process of generating economic growth

and distributing its benefits equitably to regenerate the environment instead of destroying it. Igwe, Atsumbe, Nwankwo and Raymond, (2013) believes that it should be able to give priority to the poor, by enlarging their choices, opportunities as well as providing for their participation in decisions that affect their lives. This can only be achieved through the provision of gainful employment or enhancing the citizens' job creation potentials.

This paper is therefore focuses on developing interdisciplinary synergy across vocational and technical discipline towards providing practical training skills in food production as a viable strategy for job creation and economic prosperity in Nigeria. It believes that such synergy should include the utilization of professionals and experts that cut across academia disciplines in vocational and technical to provide a sound food production processing and packaging programme, in a bid to achieving food security, job creation and economic prosperity in Nigeria.

Vocational and Technical Education

Edewor (2016) defines Vocational and Technical Education (VTE) as those filed of studies that expounds skill-based instruction for professional living. He explains that while vocational education instructs on the ability and possibilities inherent in the specialization for professional practice, technical education creates the avenue for mental applicability of the fundamentals of practical know-how in any chosen subject (practice). He however believes that both aspects produce a complete human material with inherent practical resources,

driven by a balanced mental ferment that is well-fortified for engaging the dynamics of economic challenges in society.

It is pertinent to note that for a nation to develop and achieve economic sustainability, its workforce must be developed. In this regard the type of education offered to it citizenry has huge potentials in transforming the society. According to (Ibeneme, 2016), education is a process of training designed to impart knowledge and develop skills and abilities with a bid to develop the mind and the right attitude to life and citizenship. It there means that if the right education is sufficiently offered to individuals, they would be able to contribute meaningfully to the growth and development of their society.

. Ibeneme, (2016) observes that the only form of education that emphasizes development of skills and attitude for work is vocational and technical education. Dike (as cited by Edewor 2016), affirms that vocational and technical education is paramount to national development strategies because of its impact on productivity and economic development and the contributions of vocational and technical education has resulted in the many stable economies in the world today. Ibeneme, (2016) strongly believes that sustainable development will not be possible without vocational and technical education, and recommends its consolidation to ensure that manpower is adequately built-up and equipped with high-level skills to ensure economic development and sustainability.

The goals and objectives of vocational technical education as enshrined in the national policy on education (FRN, 2014) are:

- a. To provide the technical knowledge and vocational skills for agriculture,

industry commerce and economic development

- b. To provide people who can apply scientific knowledge in the improvement and solution to environmental problems for the use and convenience of men.
- c. To give an introduction of professional study in the field of engineering and other technologies.
- d. To give training and impart the necessary skills leading to the introduction of craftsman technicians and other skilled personals who will be enterprising and self-reliant.
- e. To enable our young men and women to have an intelligent understanding of the increasing complexity of technology.

It therefore means that vocational education is an all-inclusive programme which when synergized as an interdisciplinary programme can be utilized to help engender employment and job creation and economic development in Nigeria.

Vocational and Technical Education: the Chinese model

It is pertinent to note that the China model present in this paper should not be viewed from a narrow economic prism but rather from the global rating of Chinese economy on international standpoint. Edewor (2016) explains that during the 2007/2008 economic melt-down, United States of America looked eastward to China to help stabilize its credit market. It was the Chinese-American financial deal that saved the imminent collapse of most Western economies. He equally notes that the road to economic prosperity in China

commenced in 1978 when Deng Xiao Ping took over a dilapidated economy from Mao.

According to Tucker (2015) technological growth been experienced in China today was the result of a systematic and sustainable innovation in her vocational education and training. He explains that, initially, the government provided the enabling environment by attracting foreign investors who set up high-powered industries with expatriate expertise in China. It then sent its citizens abroad to study and gain sophisticated trainings in areas applied to vocational and specific proficiency. Moreover, the local educational system was given assistance to enable it provide instructional training that produced work ready youths in different fabrics of vocational training.

Over the years, returnees of abroad trainees have systematically taken over from exiting expatriate whose continued stay in China became unattractive due to non-attractive government policies. Also, the local trainees got engaged in the already established structure. With the level of sophistication of the Chinese product, local enthusiasm and patronage of the manufactured goods have increased over time with high export rate. Today China boasts of the most advanced rail transport, system, sophisticated architecture, sea port facilities as well as best airports. Their products' hi-tech sophistication and relative cheap rates are competently overtaking most products in the international market (Edewor, 2016).

Edewor,(2016) laments that the Nigerian local industry is at its minimal base and that this has resulted in high importation of

foreign goods which continues to strangle the Nigerian economy to death like a violent monster market. He then contrives as model as thus; the first, being to develop a sound human capital material, while secondly, to engender an enhanced capacity to identify needs in society, thirdly, is the ability to decode appropriate solutions, while fourthly is to engage inherent technical knowhow to develop and create a product, and finally, the aesthetics of packaging and presentation of product to assuage socio-human needs within the dynamics of demand and supply. To this end, Vocational and Technical Education will not be an end in itself; rather it will be able to inculcate the right existential apparatus and attitudes in its trainee to engage society economically through vocationally driven entrepreneurial practices hitherto referred to as self-employment.

Creating Job Opportunity in vocational and technical education vis-à-vis Food production, Processing and Packaging

There is a renewed quest for sustainable economic development through the creation of jobs in order to eradicate poverty among youths in Nigeria. There is also increasing concerns among policy makers on how to ensure sustainable increase in food production, in order to achieve sustainable food security. In a report by the Central Bank Nigeria (CBN, 2005), agriculture is seen as the main source of food and the major employer of labour in Nigeria. Moreover, the Nigerian National Bureau of Statistics (2008), observed that in 2007 agriculture contributed (42.2%) to GDP followed by Oil and Gas (19.35%). These analogies are indicative of the fact that agriculture occupies

a very prominent position in the growth and development of Nigerian economy (Nwaiwu, Ohajianya, Orebiyi, Eze & Ibekwe, 2013).

While the dominant crops in the south are cassava, yam, palm produce, cocoa and rubber, the northern part of the country dominantly produces crops like cereals (notably millet and sorghum), groundnuts and beans (Nwaiwu, Ohajianya, Orebiyi, Eze & Ibekwe, 2013).

On the other hand, UNESCO (2009) recognizes Vocational and technical Education as a vital aspect of the educational process that contribute among others to economic development. It therefore means that vocational and technical education is a tool capable of empowering people, especially the youth, for sustainable living and socio-economic development. It therefore means that vocational and technical education is purposeful programme that can benefit individuals by empowering them with specific knowledge, attitude and skills to be productive, self-reliant and possibly emerge as employers of labour, contribute to economic development of the nation. (Igwe, Ohize, Atsumbe, Onoh and Ibeneme 2012).

It equally suggests that if the vocational and technical education if well developed and utilized, in relation to food production, should be able to provide the opportunity for job creation and economic development, thereby becoming an alternative for oil. It will also provide the people with adequate nutrition and food security.

Developing a food chain model: An Interdisciplinary Synergy for effective vocational and technical skill Development in food production, processing and packaging

This paper envisions synergy across discipline as a sustainable approach to develop a food chain model that will ensure constant and continuous increases in food production and sustainability. This model which is a systemic model for food security would focus on food production, processing and packaging. It would however apply the principles of systems strengthening emphasizing nutrition-sensitive food production with a view to quickly set Nigeria on the path of achieving a sustainable food security. Against this backdrop it becomes imperative to develop a vocational and technical programme with the aim of providing training and capacity building in the following areas vocational based sector, namely:

- Food Production
- Food Processing
- Packaging
- Entrepreneurship
- Marketing.

The development of such food chain model will lead to the design and utilization of sound vocational and technical education synergy; a model that would require the development of a programme that cuts across vocational and technical education disciplines and geared towards food security, and which will subsequently be capable of empowering graduates to successfully enter into the world of work. The food chain model should focus

on food production, processing and packaging and driven by specific, measurable, achievable, realistic and time-bound, goals in order to achieve economic development.

Interdisciplinary Synergy on food production, processing and packaging: A discuss on the Methodology

Food is any substance liquid or solid, which when eaten and digested provides the body with nutrient for growth repair and regulation of body functions (Anyakoha, 2016). Nutrition is the science of food, the nutrient substances their actions, interactions and balance in relation to health and disease, the process by which the organisms ingest digest absorb transports and utilizes nutrients and disposes off their end products (Nwokocha 2014). Keding, Schneider & Jordan, (2013) observes that Lack of affordable and adequate food at the household level is considered to be one of the main causes of hunger and malnutrition. For foods to be adequately, available utilized and ensure security, it must be produced, processed and packaged.

Developing an interdisciplinary synergy that cut across vocational and technical education fields where experts in Agricultural Science Education, Home Economics Education, Fine and Applied Arts Education and Business Education among others are utilized to develop a sound programme, and offered to stakeholders in order to develop a viable vocational-based SME sector in food production, processing and packaging has become imperative. This approach sees the development of the food chain model as paramount. While food production, will utilize input from Agricultural Education, processing, will require input from Home

Economics Education. However inputs from Fine and Applied Arts Education are expected to cater for design and packaging needs. Business Education is expected to provide the inputs for entrepreneurship. To this end members of the academia from these various vocational and technical education disciplines should be engaged.

Food Production

Maximizing the nutrient output of farming systems for a culturally acceptable and balanced diet, has unfortunately never been an objective of agriculture; rather the objective has been to maximize production while minimizing costs (Welch, 2008). However agricultural research and production should focus on increasing the production of staple food to deliver the required nutritional and economic benefit.

Staple food available in Nigeria can be categorized into the following:

Tubers: - these include cassava, yam, sweet, potatoes, and cocoyam among others and so on.

Cereals and grains: - these include rice, millet, wheat, maize and sorghum and so on.

Legumes and pulses:- these include soya beans, cow peas, bambara nuts, ground nuts and tiger nuts and so on.

Fruits and Vegetables:- these include fluted pumpkin, spinach, water leaf, amaranth, cucumber, pepper, okra, egg plant, plantains, bananas oranges and so on.

Among the list of foods itemized above are those common to the southern part of the country and the northern part of the country. There are five main areas that are connected with food production that directly or indirectly influence nutritional health, these are water, soil, agro biodiversity, health

hazards and seasonality (Keding, Schneider & Jordan, 2013). To produce all these foods one would require land, seedlings, labour, simple farming tools and implements/equipment.

This memorandum expects that food production would focus on the foods that are predominantly cultivated in the south with due consideration to the five main areas mentioned above.

Food Processing:- Food processing on the other hand is the conversion of raw materials or ingredients into consumable food products. The principles of food processing are to make it micro biologically safe from contamination and diversification into different product (Nwokocha 2014).

All produced food items can be processed into consumable goods and raw material for agro based industry and animal husbandry for economic sustainability.

Food processing should therefore involve a combination of procedures categorized as unit operations, each of which should have a specific, identifiable and predictable effect on the food (Schaschke, 2011; Nwokocha, 2014). To make food produced and processed acceptable, it should be properly packaged.

Packaging and storage: - food packaging should focus on the consumers acceptability, convenience of transportation and enhancement of shelf life. Therefore packaging materials should put into consideration the nature of the food, likely spoilage agents and storage procedure. Materials with little permeability to water vapor such as cellophane, polyethylene or polypropylene should be used. Other packaging items include bottles, containers, and tins and so on.

Entrepreneurship: - Entrepreneurship as defined by Sekuk and Mangset (2010) is the art of being enterprising, that is to say the ability to be adventurous by undertaking some daring or difficult tasks especially in the business arena. It involves the willingness and ability of a person to seek out investment opportunities, establish and run an enterprise successfully. It is pertinent therefore that the entrepreneur should be able to carry out feasibility study, develop business plan, identify risk and prospects in the business so as to take decisions on strategies to maximize profit. In every business venture the entrepreneur should put into cognizance the strength, weakness opportunities and threats to the business.

Conclusion

This memorandum proposes an innovative strategy for providing practical training skills in food production so as to be able build the capacity of stakeholders for job creation and economic prosperity in relation to food production, processing and packaging in Nigeria. With the focus directed towards achievement of economic sustainability, it contrives utilizing a synergy of vocational and technical disciplines as well as professionals and experts in these academic disciplines to provide skills in food production, processing and packaging as well as entrepreneurship and marketing to interested stakeholders. It is pertinent to note that it is not only possible to create job opportunities for the teaming graduates and jobless youths in the country, but also develop entrepreneurs that are job creators and employers of labour, who will help foster economic prosperity by engaging and investing in the food production, processing and packaging industry. Perhaps

the best approach to actualize this vision will be the application of an interdisciplinary synergy for the development of a vocational based food production sector that will be geared towards the development of SMEs. If such a programme is well articulated and implemented, it is expected that it will not only develop a viable economic sector that will cater for the problems of poverty and unemployment in Nigeria ,but also develop an industrial sector that will be an alternative to oil.

Suggestions

The following suggestion are hereby made:

1. Government should take advantage of the available human capital within the academia to tackle the problem of unemployment that seems to be a recurring decimal in Nigeria. Teacher based vocational and technical institution, with relevant schools and departments as well as highly qualified professionals and experts in the field can be engaged by government to provide the required skills in food production, processing and packaging to interested stakeholders.
2. Professionals and experts in the areas of food production, food processing, packaging and entrepreneurship should be involved for the effectiveness of the programme.
3. Government should encourage the harnessing and utilization of only the food available in the community not only for training but also for economic growth and sustainability.
4. The totality of the skills required for training the participants as well as

production should sourced from within the scope this paper and focused on developing the food chain model.

5. Skill acquisition centers or relevant institutions of higher learning can be used to achieve the objectives in this paper.
6. Right facilities, equipment/tools should be acquired and funds provided and utilized for proper training.
7. Workplace relationship should be established between the higher instructions, skill acquisition centers and relevant production industries

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