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Improving the Survival Rate of SMEs: Modernizing the Igbo Apprenticeship System (Imu Ahia)

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Abstract:

The Igbo apprenticeship system has long existed, creating start-up businesses and new entrepreneurs. It is said to be the largest business incubation system in the world. This system has been insinuated to be secret of the most industrious tribe in Nigeria (Igbos), however because it is wrongly assumed to be a program for those who can't be successful with formal education, it is not attractive to the youth. This study aims to modernize this system. Literatures were reviewed pertaining the origin, diversity, success and limitations of the apprenticeship system in general and Igbo apprenticeship system in particular. Having identified the gaps and loopholes of the system, a suitable educational model was proposed combining general and apprenticeship education. Recommendations were also provided based on international best practices. It was discovered that the system has become unattractive to the youths. Amongst others, it was recommended that the system should be reviewed such that it creates an innovative ecosystem. This study will facilitate the improvement of the Igbo-Apprenticeship system in Nigeria.

Keywords: *Imu-Ahia, apprenticeship, apprenticeship system, curriculum, entrepreneurship, technopreneurship, igbo, igba boy, nwa boy*

1. Introduction

Entrepreneurship as identified in the National Innovation framework is key and central to innovation of any nation (Eggink, 2013). Technological Entrepreneurship in particular is needed to facilitate technological innovation in a firm and nation; it is also an essential ingredient of socio-economic development (Siyabola, Aderemi, Egbetokun & Sanni, 2011). The difference between Technological entrepreneurship and other types is collaborative experimentation and creation of new products (or their features) which are connected to advances in Science and technology (Bailetti, 2019). Unfortunately, technological innovation is non-existent in Nigeria. this has led to high level of failed startups with most failures occurring before 2 years while those that exceed 2 years do not reach optimal level before crashing (Effiom & Edet, 2019)

Nigeria with a population of over 200 million (51.9% urban) and yearly increase of 2.6% ("Nigeria Population (2019) - World meters", 2019) is currently challenged with a situation of acute unemployment and low level of innovation. This situation is compounded by the fact that the population is increasing at an alarming rate. Despite government's concerted effort to improve the rate and success of entrepreneurship in Nigeria through policies and programs, there has been zero or minimal effect on the success of entrepreneurs (Sam, 2014). The Igbo apprenticeship system on the other hand has recorded high success rate, most apprentice even start representing their business within 3 years of incubation (Chinedu, 2018)

The Igbo apprenticeship system can be traced back to post Biafra war era when it appeared like the Igbos had lost everything including their means of livelihood, they formed an entrepreneurship incubation business model called the Umu Ahia. This model has generated many SMEs and start-up businesses but little global or national recognition. The Igbos generally sees the world as a big market place hence they tend more to entrepreneurship than paid jobs (Juwon, Johnson, Tunde & Akeem, 2014). The apprenticeship system is an ancient tradition that involves established entrepreneurs taking young ladies and boys from their homes to provide them practical on-job training on any given profession. The contract usually involves the entrepreneur providing the young apprentice food and other basic necessity but no salary is paid for their work. The duration varies depending on the vocation or occupation. Neuwirt (2018), an American journalist asserted that the Igbo apprenticeship system is the largest business incubation system. The Igbos' are generally insinuated to be the most entrepreneurial tribe and their success is attributed to the apprenticeship system.

However, there is need to improve the Igbo apprenticeship system to cover areas of technological entrepreneurship and consequently to make it attractive for graduates to participate. Using a proposed model, this study seeks to examine the features of the Igbo apprenticeship system with a view of modernizing and improving the system to facilitate innovation and attracts educated youths.

1.1. Harnessing Apprenticeship Program for Technology and Economic Development

The apprenticeship program is an efficient and cost-effective way of investing in local content significantly to youth employment and empowerment that ensures productivity and reduction in youth restiveness. Nigeria Economic Recovery and Growth Plan focuses on making Nigeria economy a globally competitive one through investment in its people. It also recognizes the importance of youth entrepreneurship and development of supportive business environment. Adewoye (2007) opined that entrepreneurship forms the foundation upon which science, technology and the creative industries are built. It is the key ingredient in the transformation of an innovative idea to innovative product or commercialization. Global reports have shown that, Small and Medium scale Enterprises (SMEs) provides 50% of employment. Globally, 90% of registered businesses are SMEs. According to reports from Edinburgh Group (2012), SMEs contribute to economic growth in both high and low income countries by sustaining employment and contributing to GDP. They contribute 16% and 35% for low income and medium income countries respectively while 51% for high income countries. More reports further reiterated that countries at same level of development with Nigeria, SMEs contribute a much higher proportion to GDP than currently observed in Nigeria (Okorie, et.al, 2014). Given that these countries have shown consistent commitment to the development of SMEs in comparison to Nigeria where government policy is targeted more in getting foreign investments in the economy with the hope that our graduates and skilled workers will be employed.

The federal, state and local government having seen the importance of an inclusive economy adopted the apprenticeship training scheme under the National Directorate of Employment Scheme (NDES) to solve issues of productivity and poor skills. Successful start-ups require adequate and timely funding from different sources, tailored to their needs and stages of growth. Nigeria has poor financing culture for start-ups, both in terms of numbers and versatility. Ecosystem players, both investors and entrepreneurs alike, concluded that there is a need for more financing capital at all stages of the start-up's growth cycle (OC&C Strategy Consultant, 2018). Innovative entrepreneurship which often times is product from apprenticeship training is becoming the cornerstone of economic growth in many countries of the world. Government and the industry can create the platforms that tap into people's creativity in whatever way it is expressed, rather than regarding innovation as the domain of a small handful of people according to Okorie et.al, (2014).

1.2. Origin of Igbo Apprenticeship

The work of Chinweuba & Evaristus (2017) x-rayed the innate entrepreneurial nature of the Igbos; he opined that Colonialism had a positive impact on the Igbos, as it gave the opportunity for them to exhibit their entrepreneurial skills in trading, manufacturing and agriculture, which they used to trade with the Europeans. He also opined that Igbos have always craved social and economic independence, this has sustained their continuous drive for entrepreneurship. They always look for business opportunities out of every situation. Igbos have a culture of praise for wealth gotten from hard work, this praise culture is enshrined in their religious and traditional beliefs. Worthy people are even given titles as motivation for hard work. The mindset of an average Igbo person is that success in entrepreneurship is compulsory. Their traditional proverbs like "our own is our own but my own is my own", "hard work yields wealth", "one need to explore other alternatives" amongst others further inculcate the entrepreneurial spirit in the Igbos. The work of Orugun and Nafiu (2014) re-emphasized this, he opined that the Igbos are the backbone of the economy of the nation and have contributed to the standard of living in both rural and urban areas of Nigeria.

Kanu (2019) described the origin of the Imu-Ahia as a system which involves established entrepreneurs taking young idle boys (who could be their relative or not) for informal entrepreneurial education, which is entirely practical based. This works as an ecosystem, in which those who have benefitted from this program also help others. This business incubation system is an unpaid employment for a number of years, averagely 5-8 years, after which, the apprentice is expected to be as good as the master. This system has also helped reduce the menace caused by idleness amongst teenagers and youths (Kanu, 2019). He further asserted that this apprenticeship system existed before the Nigerian civil war and even helped the Igbos survive from the ravages of the war. Within the next 2 years of the war, this system rescued the Igbos from hunger, squalor, poverty and hopelessness which resulted from the war.

1.3. Igbo Apprenticeship and its Impact on Entrepreneurship

The Igbos basically appears to be one of the largest tribe in Africa, having a population of 40 million. They are seen as facilitators of entrepreneurship. Several works agree to the positive impact of the Igbo apprenticeship system on entrepreneurship in Nigeria. Field survey done by Onyima, Nzewi & Chiekezie (2013) revealed that the apprenticeship system positively affected apprentices in generating and modifying their own business idea; choice of business location; financing of their start-up businesses; human and material management and source of business supplies. Chinazor Lady-Franca (2016) argued that Igbo apprenticeship system helps in raising capital for startup business. Adekola, 2013 states that a child chooses a career of his choice in consultation with his parents and the oracle; afterwards he is assigned to a master. He stressed the need to standardize the structure and guideline. He highlighted the problems with the system thus:

“There is a general opinion that the system is for those who can’t cope with the formal education or whose parents can’t afford the fee of the regular formal education. This has made it unattractive to many youths who don’t want to be seen as failures. There is no standardized syllabus or modules of studies hence apprentice learn haphazardly”. He further suggested that the apprenticeship system should be used to tackle the unemployment problem in Nigeria.

1.4. Apprenticeship and Technopreneurship Development in Nigeria

Technopreneurs are entrepreneurs who focus on technology based businesses. They use technology to create innovative products through the process of commercialization. Therefore, a potential technopreneur is equipped with both technical and business skills (Okorie et.al, 2014). There is a strong connection between Technological development, Innovations and entrepreneurship. Entrepreneurship therefore creates a structure upon which science and technology are built. The application of innovative hi-tech product or hi-tech in an innovative way to deliver products or services to the consumer is technopreneurship. Fowosire et.al, (2017) reiterated that in promoting technopreneurship for economic development, it requires in-site professional development programs and training to produce strategic thinkers with effective skills to succeed in a rapidly changing global environment (Fowosire, Idris, & Opoola , 2017).

The history of Informal apprenticeship in Eastern Nigeria has existed for many generations and has evolved from traditional apprenticeship system that focused on skills transmission within families or extended families to wider kinship groups and social networks. Prior to 1970 the role of government to entrepreneurship was not significant and Igbo entrepreneurs on the other hand hardly wait for government funds to venture into business (Ikerionwu , 2013). The traditional Business School also known as “Igbo-odibo” has been a source of livelihood and a platform that nurtures and incubates start-ups entrepreneurs to stand on their own and raise capital for business. Thus, the Igbos without government assistance are gradually shifting from trade to industry and factory which has led to innovation and production of things like Innoson (IVM) Cars, Motor parts, Motorcycle parts, plastics, iron casts, steel products, Shoes, Clothes, electric cables, building materials, pipes, paints, milling machines, etc. that has contributed immensely to Nigerian economy. These industries and factories of course have ties and links with a number of Asian entrepreneurs in Japan, China, Korea, Taiwan, etc. who acts as advisers (Chinweuba & Ezeugwu, 2017).

This apprenticeship program by the Igbo people attracted the government and in 1986 the Structural Adjustment Program (SAP) was adopted to encourage open markets, foreign Investments, trade liberalization and deregulation of government involvement in business. The policy was a boom for Igbo entrepreneurs who had been stifled by the indigenization program (Ikerionwu , 2013). SAP was subsequently followed by the establishment of the Small Scale Industries Credit Guarantee Scheme (SSICS), National Directorate of Employment (NDE), National Open Apprenticeship Scheme (NOAS), Small and Medium Enterprise Development Agency of Nigeria (SMEDAN), Centre for Entrepreneurship Development (CED) as well as National Centre for Technology Incubation (NCTI). The development further gave room for the emergence of micro, small and medium enterprises that are engaged in the production and provision of auxiliary products and services. The role of Government became much more apparent through the activities of SMEDAN in supporting and supervising entrepreneurship units while the Central bank of Nigeria provides financial assistance to entrepreneurs through the 10% fund contribution by commercial banks to the Small and Medium Enterprise Equity Investment Scheme (SMEEIS) that was to assist the establishment of new, viable small and medium industries which in the long run promote economic growth, and development of local technology, promote indigenous entrepreneurship and generate employment (Fowosire, Idris, & Opoola , 2017). Despite the role of government in the apprenticeship program, Nigerian school system on the other hand does not fully consider apprenticeship as a genuine path into a career. It was perceived to be a difficulty in the level of livelihood, which is expressed as a family’s inability to pay school fees and other formal educational levies or when an individual is perceived to do poorly in school, they are sent to do the apprenticeship program (Ezenwakwelu, Egbosionu, & Okwo, 2019).

1.5. Apprenticeship System around the world

Apprenticeship is seen in specific sectors, like service sector and construction sector. For instance, in the history of middle and western China, apprenticeship constitutes an important pathway to qualification and certification even with the presence of other formal training methods. The Chinese apprenticeship system just like the Igbo apprenticeship has never been specifically supported since the foundation of the People’s Republic of China in 1949. But today, it has maintained as one of the training avenues that promotes employment, especially in the construction industry, in small production and repair workshops and in the traditional service trades, such as hair cutting and cooking (Risle & Zhigun, 2014).

According to the report by Risle & Zhigun (2014), Industrialization in Europe also is centered on a double system of qualifications, which is composed of skilled workers, who had been trained through apprenticeship, and technicians and engineers, who were trained in the new applied research & development and training institutions. The British model also depended heavily on apprenticeship, as well as on science and engineering departments like the Imperial Institute, for training a skilled workforce and engineers for industry and mining. The French employed apprenticeship strategy that brought about the French model “Ecole Polytechnique”, that aims at linking applied research and planning with education and training in all types of technology, a predecessor of the modern engineering schools. The French economy relied also on traditional apprenticeship, which maintains until today. The “Ecole Polytechnique” model was replicated in some German states, as well as Northern Italy, as a result of Napoleon’s modernization agenda which began during the 19th Century and built upon the progressive elements of the French Revolution. This later made way for higher technician and

engineering positions, whereas modernized apprenticeship was, and still is, the main pathway to middle-level skilled worker positions in a number of countries (Risle & Zhigun, 2014; Munch & Matthias, 1985).

Relating this to the Igbo apprenticeship system in Nigeria, one will ask – are apprenticeships a valuable way to promote skills development in Nigeria? Answer: “Yes’ but this will require Nigerian leaders to build more on the strength by establishing viable partnerships, mainly on the local up to the national level. Island solutions may not spread over to establishing apprenticeship as a systemic avenue or career path leading youth from education through training to employment.

The U.S just like other developed nations, is also brewing the apprenticeship program which at the moment have become popular among politicians, workforce advocates, workers, and employers. The program combines on-the-job training with classroom instruction and is mostly dominated by building and construction trades. Records from the U.S. Department of Labor (DOL), enlisted that people who complete an apprenticeship program can expect to earn an average annual income of approximately \$60,000—slightly above the 2016 U.S. national median household income. In contrast with developed countries, low- and middle-income countries are characterized by a relative scarcity of skills and deficiencies of the schooling system. This has increased the need for training program, especially an apprenticeship program that has become more appealing (Hanks et.al, 2018).

Apprenticeship program has also been part of the Brazilian labour legislation code CLT (Consolidação das Leis Trabalhistas) since 1943, recording a total of 11,377 to 26,738 apprentices who had their first jobs at the ages of 17 and 18 between 2001 and 2003. The training is provided by official professional qualification agencies or by training institutions certified by the Labour Ministry (SIT & SPPE, 2014).

1.6. Types of Apprenticeship Systems around the World

1.6.1. Apprenticeship That Is Independent of Formal Education

Apprenticeship is usually pioneered by the companies. Apprenticeship is another option available to those who are interested in obtaining a recognized certificate for their training but not necessarily interested in undergoing formal education. In countries that operate this system the apprenticeship contract is the same as employment contract. E.g., France and Italy (Business Europe et. al, 2016).

1.6.2. Apprenticeship That Is Fused with Formal Education

Apprenticeship is part of the educational curriculum. Apprentices in this system are usually regarded as students e.g. Czech Republic and Slovakia (Business Europe et.al, 2016). The initial educational system of most developed countries are a mix of both general and apprenticeship education, this comes with the advantage of equipping youths with both practical and academic knowledge in preparation for a specific path. This system can be implemented in different ways depending on academic level of apprenticeship learning i.e. primary, secondary or tertiary schooling (Werner, Núria, Ricarda and Klaus, 2012).

1.6.3. Work based Apprenticeship

This has the advantage of addressing problems which pure academic schooling may not, for example mismatch of education and current prevailing technology (Werner, Núria, Ricarda and Klaus, 2012). They are usually designed to address particular industry needs or gaps. Examples are Estonia and Latvia (Business Europe et. al, 2016).

1.6.4. Informal Apprenticeship or Traineeship

This is popular in India and developing countries which have a large number of informal employments. This takes place outside a formal education institute or a vocation school. Knowledge is usually passed on though family, community or associated lines, the agreement is usually between the employer (owner of the business) and the trainee. (Werner, Núria, Ricarda and Klaus, 2012). Apprenticeship is neither part of the educational system nor lead to a certificate. (Business Europe et. al, 2016). The Igbo apprenticeship system conveniently falls into this system.

2. Method

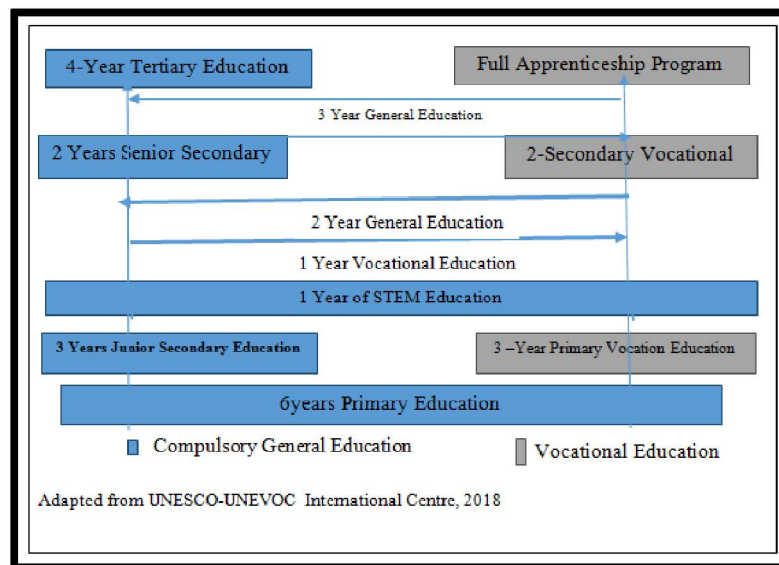


Figure 1: Proposed Apprenticeship Model

6.1. Proposed Model

For students who are interested in the general education. They undergo 6 years of compulsory primary education, 3 years of junior secondary education, one year of STEM education, 2 years of Secondary education and 4 years of University education.

Apprenticeship education will entail 6 years of primary education, 3 years of primary vocation education (teaching the basics of vocation education or apprenticeship), 1 year of STEM, 2 years Secondary apprenticeship / vocational education and full integration into the Igbo apprenticeship system (Imu-Ahia).

Students are at liberty to switch to either general or vocational education along their education path after their one year stem education. Switching to vocational education will require an additional 1 year of transitional education while it will require 2 years to switch to general education from apprenticeship education. Students are also at liberty to switch either to general or vocational education after their 2 year of secondary education in each line. Switching from general education to vocational education at this point will require 2 years of core vocational study while it will require 3 years to switch to general education from vocational education. The ease of transition helps reduce the number of drop-outs who later have a change of educational plans later in the course of their education.

6 years primary education and 2 years of vocational or general education should be made compulsory to ensure a basic level of literacy.

3. Discussion and Recommendations

The question here is, is the Igbo apprenticeships a valuable way to promote Techno-preneurship in Nigeria? Answer: "Yes" but this will require the right policies in place, building more on the strength by establishing viable partnerships and making the system attractive to the youths. In addition to implementing a new model of education which inculcates general and apprenticeship education, ensuring the latter is not seen as been inferior to the former. The following recommendations will improve the Igbo apprenticeship system, making Nigeria globally competitive in terms of techno-preneurship.

3.1. Supportive Government Policies

Government should take the lead in hiring apprentices in certain technical areas like telecommunication, Information technology etc. Government agencies should be mandated to employ a certain number of apprentices while private companies should be motivated to do so too. Policies that encourage companies to recruit more apprentices should be in place like exempt from CIT for a number of years and tax holidays for companies hiring a certain percentage of apprentices.

Policies should ensure uniformity in apprenticeship curriculum as well as standardization. Beyond south-East (Igbo land), there should be a standard curriculum and mode of teaching across the 36 states of Nigeria. This will ensure seamless transfer from one apprenticeship program/state to another.

3.2. Emphasis on Technology -Based Apprenticeship and STEM Education

STEM education should be infused into our educational curriculum from primary to tertiary level. This opens up their mind to innovative and critical thinking. STEM prepare children for the future and future jobs both within and outside STEM. It will further help apprentices adapt easily into STI (Science, Technology and Innovation) related jobs

3.3. Financial Support

Financial support needs to be given to the apprentices in the Igbo apprenticeship system, the employer is only made responsible for the accommodation, transportation and basic needs of the apprentice without paying him any wage. However, using the right policies, it can be enforced for employers to pay wages to these prospective techno-preneurs. To ensure standardization in the wages given to them, they should have a parallel salary structure to the prevailing civil service pay structure with the minimum wage policy enforced.

One of the major problems of start-ups in Nigeria generally is start-up capital, particularly innovative ventures that may require capital for equipment, tools and technology in general. Government can intervene by providing interest-free loans and duty-free importation. Trade terms like Delivery Duty Paid (DDP) and favorable tax concessions should be given to SMMEs. Government should provide apprenticeship funds (repayable and non-repayable) accessible by apprentices and their employers. State government can also provide in-training financial support and bursaries to indigenes of their state undergoing apprenticeship training.

3.4. Harmonization of Apprenticeship Programs

This will enhance mobility of apprentices and further improve the rate of completion. Apprentices are known for always looking for greener pastures; hence, their movement and travel within and across their state of residence will not affect continuity of their education. This will also increase chances of being employed.

3.5. Combination of Apprenticeship and Entrepreneurial Studies

Apprenticeship education should entail not only acquisition of technical knowledge, but also entrepreneurial skills that enable them start up and manage the business. The sustainability of the Imu-Ahia system is also dependent upon the innovativeness and ability of SMEs to grow into big business and create new start-ups. This ecosystem will increase the number of spin-offs and successful new enterprises.

3.6. Conclusion

No consumer Nation can boast of a sustainable economy. For a country to develop socially, economically and politically, it must be able to cater for the needs of the citizen and also involve more in export than import. It is pertinent that citizens don't simply depend on the government for provision and jobs but become entrepreneurs and job creators. Nigeria has benefitted immensely as a nation from the Igbo apprenticeship system, which has produced many successful entrepreneurs and those businesses have also been able to reproduce themselves in other young entrepreneurs. It is therefore necessary for Nigerian government to do an urgent review of the apprenticeship system in general, and the Igbo apprenticeship system in particular.

4. References

- i. Adekola, G. (2013). Traditional apprenticeship in the old Africa and its relevance to contemporary work practices in modern Nigerian communities. *British journal of education, society & behavioral science*, 3(3).
- ii. Adewoye, J. O. (2007). Impact of information technology and investments on banking: operations in Nigeria. *International Business Management*, 1, 70-78.
- iii. Bailetti, T. (2019). Technology entrepreneurship: Overview, Definition, and Distinctive
- iv. Aspects. Retrieved from <https://timreview.ca/article/520>
- v. Business Europe, CEEP, UEAPME and Euro Commerce (2016). The cost-effectiveness of apprenticeship schemes. making the business case for apprenticeships. Final Report. Retrieved online at http://erc-online.eu/wp-content/uploads/2016/05/Employers_Final-Report-on-Apprenticeships-May-2016.pdf
- vi. Chinazor, O. (2016). Induction strategy of Igbo entrepreneurs and micro-business success: a study of household equipment line, main market Onitsha, Nigeria. *Acta Universitatis Sapientiae, Economics and Business*, 4(1), 43-65. doi: 10.1515/auseb-2016-0003
- vii. Chinweuba, G. E., & Ezeugwu, E. C. (2017). The ontological foundation of Igbo entrepreneurship: An Analytical Investigation. *Journal of Philosophy, Culture and Religion*, 33, 17-24
- viii. Onyima, J.K.C., Nzewi, H. N. & Chiekezie, Ob. M. (2013). Effects of apprenticeship and social capital on new business creation process of 'immigrant' entrepreneurs. *Review of Public Administration and Management*, 2(3).
- ix. Effiom, L., & Edet, S. (2019). Success of small and medium enterprises in Nigeria: do environmental factors matter? *Journal of Economics and Sustainable Development*, 9(4).
- x. Eggink, M. (2013). The components of an innovation system: a conceptual innovation system framework. *Journal of Innovation and Business Best Practices*, 1-12. doi: 10.5171/2013.768378
- xi. Ezenwakwelu, C. A., Egbosionu, N. A., & Okwo, H. U. (2019). Apprenticeship training effects on entrepreneurship development in developing economies. *Academy of Entrepreneurship Journal*, 25(1), 1-25.
- xiii. Fowosire, R. A., Idris, O. Y., & Opoola, E. (2017). Technopreneurship: A view of technology, innovations and entrepreneurship. *Global Journal of Researches in Engineering: F Electrical and Electronics Engineering*, 17(7), 41 - 46.
- xiv. Hanks, A., McGrew, A., & Zessoules, D. (2018). The apprenticeship wage and participation gap. *Centre for American Progress*.

- xv. Ikerionwu, I. D. (2013). The place of Ndi-Igbo in Nigeria's social and economic development. *Journal of Education Research and Behavioral Sciences*, 2(12), 239-249.
- xvi. Juwon, O. Akeem, N., Johnson and Tunde (2014). An exploratory study of Igbo entrepreneurial activity and business success in Nigeria as the panacea for economic growth and development. *International Journal of Scientific & Technology Research*. 3. 158-165.
- xvii. Munch, J., & Matthias, R. (1985). Vocational training in the people's republic of china - structures, problem and recommendations. in english, french and german. CEDEFOP. *Luxemburg: Office for Official Publications of European Communities*.
- xviii. Okorie, N. N., Kwa, D. Y., Olusunle, S. O., Akinyanmi, A. O., & Momoh, I. M. (2014). Technopreneurship: An urgent need in material world for sustainability in nigeria. *European Scientific Journal*, 10(30), 59-73.
- xix. Orugun, J. J. & Nafiu, A. T. (2014). An exploratory study of igbo entrepreneurial activity and business success in nigeria as the panacea for economic growth and development. *International Journal of Scientific & Technology Research*, 3(9), 158-165.
- xx. OC&C Strategy Consultant (2018). Tech Entrepreneurship Ecosystem in Nigeria. Nigeria:
- xxi. Google. Retrieved from https://africafintechsummit.com/wp-content/uploads/Policy_Playbook.pdf
- xxii. Siyanbola, W., Aderemi, H., Egbetokun, A., & Sanni, M. (2011). Framework for technological entrepreneurship development: key issues and policy directions. *American Journal of Industrial and Business Management*, 01(01), 10-19. doi: 10.4236/ajibm.2011.11002
- xxiii. UNESCO (2018). TVET country profiles. Compiled in collaboration with the Central institute for vocational and technical education, Ministry of Education (CIVTE), China. Retrieved online at https://unevoc.unesco.org/wtdb/worldtvtdatabase_chn_en.pdf
- xxiv. Risle, M., & Zhigun, Z. (2014). Apprenticeship and small and medium-sized. Thailand: Regional association for vocational teacher education in asia (RAVTE).
- xxv. SIT, & SPPE. (2014). Apprenticeship manual. Brasilia: Communication department, Ministry of labor and employment (MTE).
- xxvi. Werner E., Núria R., Ricarda S., and Klaus F. Z. (2012). A roadmap to vocational education and training systems around the world. *iza. Discussion Paper No. 7110 December 2012*. Retrieved online at <http://repec.iza.org/dp7110.pdf>.
- xxviii. Worldometers (2019). Nigeria population as at 2019 - Retrieved from <https://www.worldometers.info/world-population/nigeria-population/>