


Are we ready for future work? The Nigerian University Perspective

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1. INTRODUCTION

In all the nations of the world, earnings from work are the major source of income for majority of the citizens through engagement in one form of job or the other. Jobs, therefore, are the principal source of economic and social development both for the individual and the economy. Through earnings from jobs, households meet their daily food and other needs and eventually work their way out of poverty and hardships. Economies grow, through the Keynesian multiplier effect, as workers purchase and consume goods and services from the proceeds of their work. Through repetition, which leads to specialisation, people get better at what they do and this enhances the level of productivity. Over time, more productive jobs are created and less productive ones disappear. According to the World Bank (2013), jobs are thus transformational—they can transform what we earn, what we do, and even who we are. No surprise, then, that jobs are atop the development agenda everywhere—for everyone from policy makers to the populace, from business leaders to union representatives, from activists to academics.

In spite of the centrality of jobs both for individuals and nations of the world, there is evidently a contraction of jobs due to the scourge of global economic recession, wars, natural disasters, and economic mismanagement, among a host of other factors. In recent times, jobs have contracted globally leading to a high level of unemployment. This has made the number of people in unemployment rise from 196.4 million in 2014 to 197.1 million in 2015, showing an increase of about one million people moving into unemployment in a year. This translates to an increase in the global rate of unemployment from 5.7 percent in 2015 to 5.8 percent in 2016 (ILO, 2016). The projection for 2017 and 2018 shows that World

unemployment figures would rise to 201 million and 204 million respectively with an unemployment rate of over 5.8 percent each for both years.

Another important factor explaining the decline of jobs is the rapid advancement in technology, which contributes phenomenally to productivity improvements leading to a reduction in the proportion of wage bill in total value added. For instance, the digital revolution is one of the important technological advancements affecting the type and quantity of available jobs in the nations of the world. According to the World Bank (2016), more than 40 percent of the world's population has access to the Internet, with new users coming online every day. Among the poorest 20 percent of households, nearly 7 out of 10 have a mobile phone. The poorest households are more likely to have access to mobile phones than to toilets or clean water. For many people, today's increase in access to digital technologies brings more choice and greater convenience.

The combined influence of digital revolution and the rapid progress of application of other ICT infrastructure have facilitated internet connectivity, automation, and the use of robots by companies on production lines or algorithms to optimize logistics, manage inventory, and carry out other core business functions. Technological advancement therefore has been responsible for what Schumpeter termed '*creative destruction*' through which machines are deployed for use in the workplace. This process '*destroys*' a number of tasks being done by humans, while new ones are created. The question now is: how much of transformation do we expect in the workplace? What are the implications for future jobs/employment creation and skill-mix in the global economy? More importantly, what preparations are in place to train current and future

entrants into the labour force to handle those future jobs? In trying to provide some answers to these questions, the World Bank has counselled that: *To get the most out of the digital revolution, countries also need to work on the “analogue complements”—by strengthening regulations that ensure competition among businesses, by adapting workers’ skills to the demands of the new economy, and by ensuring that institutions are accountable* (World Bank, 2016).

The main aim of this paper is to examine how technological development have affected jobs in Nigeria and how the Nigerian educational system is prepared to handle manpower development efforts to mitigate the impacts of any shocks created on the current and future entrants into the labour market. This paper is structured as follows: Section 2 discusses the theoretical concepts of creative destruction and innovative disruption and how each of these impact on job creation/destruction with emphasis on the Nigerian economy. The third section examines the link between technological change and employment through productivity enhancement while the fourth section investigates the state of readiness of the Nigerian University system for future works. The fifth section gives a brief account of the training and development strategies of Covenant University towards preparing work-ready graduates both for current and future work-place environments. The sixth section gives some concluding remarks.

2. CREATIVE DESTRUCTION, INNOVATIVE DISRUPTION AND THE FUTURE OF WORK

Introduced into Economics literature in the 1940's, Schumpeter (1942, p.83) defined creative destruction as: The fundamental impulse that sets and keeps the capitalist engine in motion which comes from the new

consumers' goods, the new methods of production or transportation, the new markets,.... [This process] incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one. This process of Creative Destruction is the essential fact about capitalism.

The restructuring process through creative destruction is clearly discernible in almost all aspects of macroeconomic performance. Its effects are dominant in the labour market where it affects the structure and quantum of employment of productive factors of production. It has been found, through empirical research that over the long run, the process of creative destruction accounts for over 50 per cent of productivity growth. At business cycle frequency, restructuring typically declines during recessions, and this adds a significant cost to downturns. Obstacles to the process of creative destruction can have severe short- and long-run macroeconomic consequences.

The literature abounds with recent empirical evidence that tends to support the Schumpeterian view that the process of creative destruction characterises economic growth in all the markets of a capitalist economy. This is manifested mainly in the areas of factor re-allocation and job flows in the context of labour input. Job creation (destruction) is defined operationally as the positive (negative) net employment change at the establishment level from one period to the next. Using this definition, researchers have documented this process in some major market economies (e.g) the USA and found that over 10 per cent of the jobs that exist at any point in time did not exist a year before or will not exist a year later. That is, over 10 per cent of existing jobs are destroyed each year and

about the same amount is created within the same year. Following this initial empirical validation (DHS, 1996) for the United States, many authors have constructed more or less comparable measures of job flows for a variety of countries and episodes. Although there are important differences across them, there are some common findings. In particular, job creation and destruction flows are large, ongoing, and persistent. Moreover, many job flows take place within rather than between narrowly defined sectors of the economy.

In my view, the concept of creative destruction is similar to that of innovative disruption. Disruptive innovation, as defined by Clayton Christensen the inventor of the term, is a process by which 'a product or service takes root initially in simple applications at the bottom of a market and then relentlessly moves up market, eventually displacing established competitors'. Such disruptor (e.g. personal computers, cellular phones, etc) allows a whole new population of consumers at the bottom of a market to have access to a product or service that was historically only accessible to consumers with a lot of money or a lot of skill (e.g. mainframe and mini-computers; fixed-line telephone services, etc). In our context, a major disruptor in the education industry as well as the labour market are the digital revolution and artificial intelligence, which, unarguably have been identified as being responsible for changing the nature and context of jobs and skills.

3. TECHNOLOGICAL INNOVATION AND ITS IMPLICATIONS FOR PRODUCTIVITY AND FUTURE WORKS

*"The question is not: 'Am I going to be disrupted?'
but 'When is disruption coming,
what form will it take, and
how will it affect me and my organisation."*

(Klaus Schwab, 2016; Author of 'The Fourth Industrial Revolution)

"Through their own brilliant discoveries, universities have sown the seeds of their own disruption. How they respond to this Artificial Intelligence (AI) revolution will profoundly reshape science, innovation, education – and society itself." (Dodgson and Gann, 2017).

The fourth industrial revolution, epitomised by the new technology revolution is nothing less than the transformation of the entire global system of human existence. Much of this rapid scientific discovery leading to technological developments have their roots in academic and scientific institutions. For instance companies such as *DeepMind* (world leader in artificial intelligence research and its application for positive impact), *Magic Pony* (a Canadian creative studio), *Ayasdi* (A machine intelligence software company for analysing and building predictive models using big datasets), *Wolfram Alpha* (a computational knowledge and answer engine developed by Wolfram Alpha in 2009) and *Improbable* – have their origins in universities.

Thus, we cannot agree less with Dodgson and Gann (2017) that 'Universities are the drivers of disruptive technological change, like AI and automation'. Now AI should be therefore be seen/viewed not only as an agent of disruption but also as a 'Transformer'.

It is therefore incumbent upon the universities to engage these inventions to achieve their mandates as teaching and research institutions and more

importantly, create opportunities that will make the society resilient to this disruption. For instance, an engagement of AI and internet connectivity can be employed to deliver several mandates like: Analysis of complex data sets, execution of routine jobs like grading of scripts, compiling of attendance registers, and impartation of knowledge to those outside the four walls of the University in a cheaper fashion (e.g. MOOCs/COOCs; just like the cases of *Udacity*, *Coursera*, *Khan Academy*, among several others).

Through improved productivity and elimination of routine jobs, AI will definitely create technological unemployment but the upside of this is that the new reality has an inherent system of creating higher skilled jobs not less in number than those destroyed. The University System, as human development institution must then address the consequences of technological unemployment, and thus design strategies for providing skills and opportunities for people whose jobs have been adversely affected; more importantly, they are to equip students to meet the demands of the new kind of work and economy.

4. FUTURE WORK: HOW READY ARE THE NIGERIAN UNIVERSITIES:

In this respect, there are both optimistic and pessimistic views with respect to the relevance of the University System in preparing graduates for future works. One of the pessimistic views is as follows:

"Cut the campus loose. Axe the physical constraints. The library? Classrooms? Professors? Take it all away. The future of the university is up in the air."

However, this view may not be totally correct as University System that is flexible to technological and labour demand changes will continue to find

relevance. This is because, AI can only cut the jobs, replace them with other form of jobs, and not eliminate human resource in the workplace.

Historically, it takes some time lag before the educational policies catch up with the realities of the labour market. The cobweb model (Oladeji,1990) as well as the dynamic surplus model (Blaug, Layard and Woodhall; 1969) explain this phenomenon very clearly. Listed below are some of the strategies that the Universities can put in place to get her graduates ready for future work.

A. Curriculum Review

a. Since the Benchmark Minimum Academic Standard (BMAS) is the required minimum threshold, each university must begin to review her curricula to meet the current realities of the labour market.

b. Universities can no longer operate as an independent unit. An industrial linkage must be facilitated and made to function.

c. A community engagement by the University in the area it is located

To stay relevant, Universities have to respond to the demands of the workplace. For instance, The College for America exclusively admits students through their employers, meaning that the tuition costs are often covered by the companies in return for a worker trained in a specific skill set that's in high demand. These kinds of partnerships are becoming more and more common.

B. Concentration on Skills that are not easily Automatable in Every Programme Offering of the University

In an empirical study conducted among employers of labour with respect to preferred qualities of graduates coming for employment in their organisation, 93 percent of the responding employers cared more about “*critical thinking, communication, and problem-solving skills*” than an undergraduate’s concentration. They need graduates, who can take on multiple responsibilities, which requires flexibility and a plethora of skills. “We need to stop worrying about trying to make them experts in very narrow fields, instead, let’s focus on teaching them the process of learning itself.”

C. Develop Hybrid of On-line and On-Campus Programmes.

This will widen access. For instance, Coursera is reported to have enrolled over 1.4 million students.

5. COVENANT UNIVERSITIES AND FUTURE WORK

Covenant University was established in 2002 with a clearly stated departure philosophy. Her vision is to be a leading world-class Christian Mission University committed to raising a new generation of leaders in all fields of human endeavour. Her mission is to create knowledge and restore the dignity of the black man via a Human-Development and Total-Man-Concept-driven curriculum employing innovative, leading edge teaching and learning methods; research and professional services that promote integrated, life-applicable, life-transforming education relevant to the context of Science, Technology and Human Capacity Building.

Covenant University has the following unique selling points:

- a) Our seven Core Values of: *Spirituality, Possibility Mentality, Capacity Building, Integrity, Responsibility, Diligence, and Sacrifice.*
- b) Specialised Subjects that are packaged with each programme of study to ensure the production of 'branded' graduates that are unique in terms of acquired skill sets and readiness for future work. Some of the subjects include, among others: Entrepreneurship Development Studies (EDS), Total Man Concept (TMC), Towards Total Graduate (TTG), among others. These subjects must be attempted and passed by all students before graduation.
- c) The teaching method in Covenant University emphasises the use of the problem-based approach. This enhances creativity in problem solving and engenders team spirit among our students.
- d) The EDS and TMC is not just in theory, they are being put into practice. For instance, workshops are available for regular practices for different aspects of EDS; the practical aspect of TMC requires that each student lives a disciplined life laced with character during the period of study while those who fail to comply are excused from the Covenant University Community. In collaboration with ITF, some officials and students of Covenant University recently visited Songhai Farms in Benin Republic as part of SIWES/EDS programmes of the University.
- e) The University has embarked on a strong Town-Gown link to develop win-win results in the following critical areas, among many others:

- (i). Industry Partnership arrangement for the purpose of understanding the needs of the industrial enterprises and thereby helping towards providing solutions, through research, that will suit such enterprise.

(ii). Town-Gown seminars where industry leaders are brought into the University to share practical/industry experience with faculty and students. This is helping to prepare them for the world of work.

(iii). Working together with industrial enterprises to seek places of practical work experiences for our students. This is mandatory for all of our students.

- f) Working in collaboration with credible organisations to design and run programmes that are rich in both theoretical and practical content. An example of this is the joint MSc/ACIBN programme, which started three sessions ago. Other programmes of such nature are still in the pipeline.
- g) Industry-based Research Leave for senior faculty of the University to enhance practical knowledge of the workings of the industry.
- h) All students participate in and are required to pass some specialised courses before graduation. Two of these are ICT certification in an area of interest to each of the students, as well as certificate and diploma courses in Leadership. These gives Covenant University graduates the soft skills that make them relevant both now and in the future.
- i) All final-year students go through a well-packaged school-to-work transition programme labelled: Towards Total Graduate (TTG), which prepares all Covenant graduate (fondly referred to as EAGLES) to fit into the world of work, either as self-employed entrepreneurs or as employees in established enterprises.
- j) Since the year 2012, Covenant University has embarked on the Vision 10:2022 which is aimed at getting the University listed among the top 10 leading universities in the world within a period of 10 years.

All these and many other training and development strategies employed in Covenant University are yielding good result. For instance, in the letter of invitation written to the Vice-Chancellor for this Summit, it was stated that:

"Covenant University (CU) graduates have always emerged better employees than their peers amongst all our hirees. They have been highly commended by our clients (who are employers) and CU graduates have received rapid promotions on their jobs more than any other Nigerian University graduate that we have recruited. ..."

In summary, Covenant University is set for future work as we produce men and women who will change their generations through unparalleled ingenuity, creativity and purposeful living. Our goal is to develop the man that will develop his world. With the achievement of the attainment of becoming one among the top ten universities in the world by the year 2022, Covenant University is determined to set the place and blaze the trail in preparing graduates for future work, and more.

6. CONCLUDING REMARKS

Distinguished guests, ladies and gentlemen, permit me to conclude this short address by raising the question posed by the title of this paper: *Are the Nigerian Universities ready for future work?* In all sincerity, I cannot claim to have the mandate to speak for all the Universities in Nigeria. However, I make bold to say that Covenant University which I represent is ready and we will continue to drive for universally testable quality standards; not only with respect to the training and development of our students for future work (both in paid employment and in own-account entrepreneurial engagement), but also in research relevance, as evidenced by citations and positive community engagement for development.

We at *Covenant* University are very mindful of the fact that we have been entrusted by providence with the responsibility to train a peculiar demography of Africa's present that constitutes 100% of her future.

We do not take this responsibility with levity.

I sincerely thank the organisers of this Summit for counting Covenant University worthy of being invited to deliver this keynote address.

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