Managing Innovative University Education for the Attainment of Sustainable Development Goals in Nigeria

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ABSTRACT

Sustainable development goals (SDGs) have become widespread as several countries have embraced them. The aim of this paper is to examine how innovative Nigerian university education can be achieved for sustainable development in Nigeria. Thus, the paper focuses on SDG 9 which is the goal of industry, innovation, and infrastructure. The world today is a digitalised world characterised by digital technology and infrastructure and it is necessary for 21st-century students to keep up with these modern-day digital practices. SDGs have been set up by the United Nations to improve the living standards of the people in the world despite differences in class, religion, economy, race, and other factors that usually cause division between people. These sustainable development goals can be achieved through university education which is known for imparting knowledge, values and discipline to students and shaping them to become future leaders. The roles of Nigerian universities in achieving innovative university education for sustainable development as well as the challenges impeding the advancement of innovative university education in Nigerian universities, were examined to include lack of technological knowledge, inadequate funding, inadequate e-learning, and ICT facilities, amongst others. It was concluded that there is a need for Nigerian universities to develop innovative infrastructure so as to achieve sustainable development in Nigerian universities, as this will enable students to compete with their peers globally. The way forward to these issues would be adequate funding, provision and proper maintenance of e-learning and internet facilities, and proper management of resources, amongst others.

APA CITATION

CHICAGO CITATION
INTRODUCTION

Managing innovative university education to attain sustainable development is very vital to society and the nation. Change is inevitable in every society as a society has a dynamic nature and university education is inclusive of such dynamism. The world is currently faced with a digital age where one who lacks digital skills cannot keep up with his peers who are digitally and technologically inclined. The administrators of Nigerian universities must thus adapt to the current trend of innovation in society and the world to be up to date in knowledge and skills to achieve the goals and objectives of university education and sustainable development. For the administrators to achieve these goals and objectives effectively, they must adapt to the current changes in society and the world globally so that the students can be self-reliant, independent and be able to contribute to their National Gross Domestic Product (GDPs). The adaptation of current global trends so that the students can be marketable locally and internationally in the labour market. Because of the innovative and competitive nature of the world, there is a need to give students good and qualitative education to adapt to changes in curriculum and trends in society to prepare them (students) for new and future jobs without compromise. The university administrators must also prepare students for novel ideas where they can think creatively, collaborate and partner with other universities that are conversant with innovative technology so that they can be relevant in the labour market.

The objective of this paper is to examine some modern-day innovative university initiatives and see how they can be applied to the Nigerian university system to promote innovative university education in Nigeria. The aim of this paper is to identify contributions universities can make to adequately manage innovation within their universities and encourage the accomplishment, spread, and implementation of innovative university education in other Nigerian universities so as to achieve sustainable development in Nigeria. The Sustainable Development Goals have been set up by the United Nations to improve the living situation of the people in the world despite the differences in class, religion, economic situation, race, and gender. The main SDG of this paper is SDG 9, which promotes innovation. The 9th sustainable development goal can be achieved with the help of a university education which is known for imparting education in the world despite the differences in class, religion, economic situation, race, and gender. The SDGs are very necessary for the growth and development of the countries of the world.

Education is very vital for the mental, social, political, and economic development of an individual. It is a formidable tool necessary for the development of a competent workforce in any society. (Umeozor & Eziuzo 2020). Anisiudo (2013) asserts that “it is better to be unborn than untaught; for ignorance is the root of misfortune”. Education is undoubtedly the foundation upon which the future of any society is built and the best investment any government can make for its citizenry which will basically result in the attainment of economic prosperity (wealth creation, scientific and technological advancement, and political stability of a nation). This gives an
arrangement of the level of innovation in education in the university and its effects at large. Innovation in education makes working together and teamwork easier. Students, parents, and lecturers can communicate easily and more effectively. Innovation allows easier, faster, and more efficient delivery of lectures in the classroom as lesson materials are digital and can be accessed using digital devices. There is advancement in technology, allowing students to adapt to the changing technology every day. Students should have a change in their perspective on innovation in education, new ideas, and advancements in technologies that can cause an increase in academic progress and output. Innovation in education pushes lecturers and students to discover something new through research and experimentation. Innovation helps students in problem-solving.

Sustainable development has been described as development that meets the needs of the present generation without compromising the needs of future generations to come. To achieve sustainable development, the United Nations set out sustainable development goals (SDGs). This paper focuses on the attainment of sustainable development goals by regulating innovative university education to achieve them. Sustainable development goals are guidelines which the world must follow to maintain world order in all aspects of society. As earlier stated, this paper concentrates on the 9th SDG which pertains to industry, innovation, and infrastructure as it relates to the development of innovative university education in Nigeria.

Management

In any working society, there must be a person or a group of persons to pilot the affairs of the organisation through planning, organising, controlling, and coordinating human activities towards goal attainment. These people are called managers, administrators, leaders, or supervisors. Therefore, the effectiveness of an organisation depends greatly on management (Akpan, 2011). Okwori (2011) asserted that management is the coordination of all the processes of planning, organising, directing, and controlling in order to achieve the organisation’s objectives. Igbinedin (2016) referred to management as a dynamic process of mobilising both human and non-human resources towards the attainment of the goals and objectives of an institution. Okunamiri (2008), cited in Eze et al. (2018a), rightly stated that the job of an effective educational manager is to plan, design, and implement an efficient and effective learning system responsive to the needs of the learners and society. In a university system, the management of affairs is handled by the university administration, which manages decisions on the implementation of policies and programmes within the university. Thus, for innovative university education to be achieved in Nigerian universities, the university administrators are required to effectively plan and execute innovative policies and programmes that would develop the minds and skill sets of students and this would further lead to the achievement of sustainable development in Nigeria. Yale (2010) cited in Ofor-Douglas (2021b) noted that management is an effective organisation and utilisation of human and managerial resources in a particular system for the achievement of identified objectives.

EDUCATION

Education is a vital instrument of change within a society and is no doubt an important tool required for the development of a society, community, or country. Osuji and Koko (2019) agreed with this when they asserted that education plays a key role in the development of human capital and subsequently brings about the establishment of sound economics and harmonious communities where there is peace and national unity. Education may either be formal when it takes place in a classroom/school or informal when it takes place outside school. Education is a continuous process of life that stops only when a person dies. Educated individuals stand a greater chance of being able to make positive contributions that will translate into
the development of themselves and the society in which they live (Uyanga & Emana, 2016). Education in Nigeria has often been seen as more theoretical than practical. Education should be more holistic and practical, the purpose being to prepare young people to meet not only the challenges of their academic life but life as well. They will thus have the opportunity to learn about themselves, their social development, emotional development, and much more. At the end of it all, they will have a positive impact on their immediate communities and on the nation at large (Kumar 2011).

University Education

University education is higher education received after an individual has passed through the primary and secondary school levels of education. It provides not only the high-level skills necessary for every labour market but also the training essential for teachers, doctors, nurses, civil servants, engineers, humanities, entrepreneurs, scientists, social scientists, and a myriad of other personnel. It is these trained individuals who develop the capacity and analytical skills that derive local economies, support civil society, teach children, lead effective government, and make important decisions which affect entire societies. The university is a community of scholars and students engaged in a complex task of learning to which humanity looks up for overall human progress (Robert-Okah & Worlu, 2013) cited in Ofor-Douglas (2020). The objectives of university education are to make optimum contributions to national development by intensifying and diversifying its programmes for the development of high-level manpower within the context of the needs of the nation (Federal Republic of Nigeria, 2014). For the university administrators in Nigerian universities to achieve such laudable goals and objectives, the university administrators need some managerial skills and intellectual capabilities to face and resolve challenges within the organisation.

Innovation

This generally refers to the new development of a product, process, or service. It is the application of new ideas to improve a product, process, or service. The service being referred to is that of educational services provided by universities. Innovation in education is doing things based on what is best for the students, classes, educational schemes, and the curriculum. It can be defined as the process of transforming an old idea into an improved version by introducing change to its regular characteristics. Innovation entails the use of knowledge, reasoning and creativity to acquire a new version of the previous situation. Apebende (2013) opined that innovation is the introduction of new things or a new way of doing things. Also, Mykhailyshyn et al. (2018) submitted that innovation in the educational context includes educational, technological, scientific, legal, administrative, infrastructural, and other. Innovation in education represents a deliberate activity aiming to introduce novelty into a certain context; it is pedagogical because it aims for sustainability and improves students/pupils’ preparation by means of interaction and interactivity (Bechard, 2007). Agommuoh (2013) reasoned that innovation is a tool intentionally used to bring into existence and practice something new to enhance performance and growth through improvement in efficiency and effectiveness. Ogakwu & Isefe (2012) averred that innovation is a process whereby a new product is made available, spread through the system, and infused into other operating practices. In the same vein, Olugboyega (2017) maintained that innovation is the implantation of creative inspiration. To Olugboyega (2017) innovation can take several forms, such as:

- Innovation in process, including changes and improvement to methods: These contribute to an increase in productivity, lowers cost and help to increase demand.
- Innovation in products or services opens new markets and leads to higher demand which in turn increases investment and employment.
• Innovation in management and work organisation, and the exploitation of human resources, together with the capacity to anticipate techniques.

David (2011) upheld that educational innovation is the deliberate identification and application of ideas, information, imagination, and initiative in deriving greater values and results.

Sustainable Development

The concept of sustainable development has adopted various definitions over time, but for clarity, one can refer to it as development that benefits the current generation without compromising the necessities of future generations. The concept seems to have attracted the broad-based attention that other development concepts lacked and appears poised to remain the pervasive development paradigm for a long time (Sheperd et al., 2016). Sustainable development is a development that can be conferred either indefinitely or for a given period. Sustainable development (SD) has become a ubiquitous development paradigm— the catchphrase for international aid agencies, the jargon of development planners, the theme of conferences and academic papers, as well as the slogan of development and environmental activities (Ukaga et al., 2011). Sustainable development is the development that can be continued either indefinitely or for a given period (Stoddart et al., 2011).

Aliwa (2016) asserted that sustainable development as lasting socioeconomic, political, technological advancement capable of bringing qualitative education, gainful employment, and maximum security, free, fair, credible transportation elections, provision of socio amenities, good governance, the rule of law, and respect for gender equality. Idris (2013) perceived that sustainable development processes are dynamic and can only make an impact through actions taken to achieve human cantered development. Ugoh (2008) emphasised a construct which envisions development as meeting the needs of the present generations. It does not compromise the ability of the future generation to meet their own needs. This ability to meet the needs is determined by human capital through capital education, technological advancement and physical capital (machines, tools etc.). Ugoh (2008) maintained that continued sustainable development is only possible or assured when agreed upon and, indeed concrete steps are taken to raise the level of literacy and numeracy in any society.

Similarly, Agih (2016) indicated that education for sustainability is the practice of learning how to achieve global and local sustainable communities through the constant provision of desirable educational needs to people of the young generation such that will be meaningful in their future aspirations. Ebuara (2015) submitted that sustainable development is the socioeconomic development of people in meeting their basic human rights needs without compromising environmental conservation and protection so that the earth’s resources will be able to meet the needs of the present and future generations. There are 17 sustainable development goals; these are, 1. No Poverty, 2. Zero Hunger, 3. Good Health and well-being, 4. Quality Education 5. Gender Equality, 6. Clean Water and Sanitation, 7. Affordable and Clean Energy, 8. Decent Work and Economic Growth, 9. Industry, Innovation, and Infrastructure,) 10. Reduced Inequalities, 11. Sustainable cities and Communities, 12. Responsible Consumption and Production, 13. Climate Action, 14. Life Below Water, 15. Life on Land, 16. Peace, Justice, and Strong Institutions, 17. Partnerships for the Goals. Our concern for this paper is on goal NO. 9. Where the university administrators will manage the university education to attain quality university education that will refine the raw materials (students) and turn out to the society as finished products of creativity to take over the society, the economy of the world now and in the near generations to come in future. In agreement with Unachuckwu (2014) cited in Aliwa (2016)
postulated that through education, the individual citizen is fully equipped to contribute meaningfully to the social and economic development of his nation. The researcher is of the view that education for sustainable development is education for now and for the new generations in the future to come.

E-learning in Nigerian Universities to Achieve Innovative University Education

E-learning is a necessary practice required to keep up with the 21st-century digital age. It can be referred to as the practice of using ICT technology and the internet to facilitate the teaching and learning process. Bennet (2020) maintained that e-learning is a learning system based on formalised teaching but with the help of electronic resources. Suresh and Pardeep cited in Ofor-Douglas (2021a) contended that e-learning is the delivery of information for the purpose of education and knowledge management through electronic media such as the internet, intranets and extranet, audio-video tape, satellite broadcast, interactive TV programmes. It can be described as the incorporation of modern telecommunication equipment, notably computers, tablets, and ICT resources into the education system for convenience and an effective learning process (Eze et al., 2018b). The e-learning strategy of higher education is to create a learning environment where lecturers provide web-based content and design online learning activities. Akhtar (2010) rightly said that teaching through a technology-based learning environment enhances the achievement level of the students. Moreover, it would enable these students to be technologically inclined, thereby promoting the 9th SDG of innovation. It would further enable them to live comfortably in the digital age.

Problems of Innovative University Education in Nigeria

There are certain problems encountered in the attainment of innovative university education for sustainable development in Nigeria. These problems include:

Low Adaptation Rate in University Curriculum

The curriculum in most Nigerian universities cannot meet up to modern-day innovative teaching and learning standards because it is outdated and relies on the old teaching method of using a board and a marker to teach the students, the use of notebooks to take lesson notes, submission of assignments manually, amongst others. The Lagos Business School (2022) opined that the fact that the academic program in Nigerian educational institutions is older than the nation itself is no longer a surprise. This is due to the unwillingness of some administrative heads in these educational institutions to follow the current 21st-century practice of e-learning. An educational environment that is not encouraging, open to new ideas and flexible would be limited when trying to promote innovation. This will build a gap between them and the rest, who are ready to adapt to changes in education. Therefore, the implementation of an e-learning-based curriculum is a necessity in Nigerian universities.

The Issue of Funding

The lack of funds to carry out research, projects, or seminars that focus on sustainable development would be detrimental to the management of innovative university education for sustainable development in Nigeria. Chijioke et al. (2017) noted that funding is an essential ingredient that contributes to the success of any university education all over the world. The level of funds available in the university system can determine the quality and quantity of resources that will be available for teaching, research, and community development. There are issues of funding from Federal to States Universities across the board. No wonder Chukwurah (2011) categorically stated that Nigerian Universities are being funded below the minimum standard of 26% recommended by the United Nations Education Scientific and Cultural Organization (UNESCO). Also, Ogbogu (2011) submitted in his study that the academic staff did not attend workshops and conferences regularly and that there was a drastic reduction in the awards of...
research grants and fellowships all due to lack of funds particularly in state Universities which Ebonyi State University is one of them. In agreement with the above assertion, Abali (2013) affirmed that when compared with other countries in the same level of development, Nigeria spends far less on education in her annual budget than other sectors.

Inadequate ICT and Internet Facilities

Another major problem that may serve as an impediment to the management of innovative university education for sustainable development in Nigeria is the lack of ICT and internet facilities to engage in e-learning practices and conduct independent research. Okolocha and Okolocha (2012) supported this view by stating that Nigerian tertiary institutions do not have the necessary equipment and facilities to equip the students with the necessary skills and competencies.

Nwana (2012) further agreed with this when he opined that there is an acute shortage of e-learning materials such as online/ internet-connected computers, email facilities, multimedia television, multimedia computer and digital library. Innovative university education cannot function effectively without the presence of adequate ICT facilities and strong internet service within the institution.

Computer Illiteracy

Computer illiteracy is the inability of individuals to understand or properly utilise computer-related hardware and/or software. Many students are not skilled in basic computer programs and function vital to their e-learning classes such as Microsoft Word, Zoom etc. This means students will have difficulty following their teachers and fall behind (Ofor-Douglas, 2021a). Babalola (2012), Ogunsola (2012) and Ogbudinkpa (2015) rightly stated that if e-learning would be sustained in a politically messed up and economically crunched Nigerian society, there should be adequate provision of needed facilities and infrastructures to promote and enhance sufficient ICT (e-learning) training for teachers and students in all categories from basic education to university level. Godwin in Chigozie-Okwum (2018) opines that when teachers are digitally literate and trained to use ICT these approaches can lead to higher-order thinking skills and leave them with thinking skills, providing creative and individualised options to learners to express their understandings and also leave them better prepared to deal with the on-going technological changes in society and workplace.

Energy Related Problems

This is another major problem facing the effective management of innovation in Nigerian universities through e-learning. Most of these ICT and internet facilities require power to be effective. However, Nigeria has failed to adequately provide the needed energy for its citizens. Douglas (2022) agreed with this when she opined that Nigeria is struggling to produce adequate electricity needs for its citizens. Thus, e-learning in Nigerian universities cannot adequately take place without a sufficient power supply.

Lack of Maintenance and Security of Facilities

In Nigerian institutions, physical resources which include e-learning facilities such as smart boards, projectors, and computers, amongst others, must be carefully managed and maintained. Ofor-Douglas (2022) posited that this would only be possible if sufficient funding were available to maintain these facilities. It has become a trend for some individuals in Nigerian universities to misuse the funds required for the maintenance of these facilities for other purposes. Thus, the facilities become old and start to malfunction thereby hindering e-learning processes.

Another problem facing the innovation of university education in Nigeria is the lack of adequate security of ICT and e-learning facilities within the university. Jian and Rao (2011) rightly observed that security is the provision against theft and entry
of unauthorised persons into work premises and is essential for preventing sabotage. Some students and lecturers have formed the habit of stealing ICT facilities in order to sell them for profit. This heinous act has further led to a decrease in e-learning materials which has hindered the progress of e-learning in Nigerian universities.

CONCLUSION

The importance of innovative university education for sustainable development in Nigeria has been emphasised in this paper, and it is up to every member of a nation and its citizens to contribute human and material resources to achieve them. It must be understood that the world is dynamic, and Nigerian university education must follow new trends that are springing up in the innovation of education. Therefore, university administrators must put in the effort to ensure that innovation can be seen in their educational policies to promote SDG 9. The paper discussed various challenges facing the effective management of innovative university education for sustainable development in Nigeria, some of which included a poor adaptation of e-learning practices in curriculums, inadequate funding, computer illiteracy, and low energy needs, amongst others. These challenges may be resolved with the following solutions:

Way Forward

- Efficient and open-minded leaders should head various positions in universities thereby creating a trend of innovation in the school system. A new curriculum which conforms to 21st-century innovative educational practices should also be adopted in Nigerian universities.

- Nigerian universities should supplement their income through internal revenue instead of waiting on government funding.

- The training and restraining of teachers /lecturers through workshops and seminars to keep up with the changing technologies in learning.

- The Federal Government should provide for the electricity needs of the universities in order to enhance the use of e-learning facilities. Some universities can switch to the use of solar panels to allow for a sustainable and environmentally friendly power supply.

- ICT centres should also be provided in universities to ensure students who cannot afford their own devices will have access to SDG information.

- There should be routine and proper maintenance of ICT and internet facilities.

- Adequate security should also be given to safeguard the ICT and internet facilities to enable the e-learning process to take place.

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