



IMPACT OF EMERGING TECHNOLOGIES AND INNOVATIONS IN THE MANAGEMENT OF TERTIARY EDUCATION FOR SOCIETAL REENGINEERING IN EBONYI STATE

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Abstract

The study focused on Impact of Emerging Technologies and Innovations in the Management of Tertiary Education for Societal Reengineering in Ebonyi State. Two research questions were formulated to • guide the study. The study adopted descriptive survey research design with the population of four hundred senior academic and administrative staff of Alex-Ekwueme Federal University while sample of the study comprised two hundred staff using simple random sampling technique. Structured questionnaire was used to elicit information from people. The instrument was validated by three experts with reliability coefficient of 0.89. Statistical mean and standard deviation were used to analyze the data. A modified 4 points rating scale was used to identify the degrees of respondents. From the findings, it was discovered that impact of emerging technologies on Tertiary Education management for empowerment and job creation in Ebonyi State are to a very high extent and the impact of emerging innovation on Tertiary Education management for empowerment and job creation in Ebonyi State also recorded to a very high extent. It was recommended that computer studies, entrepreneurship and technological studies should be made compulsory elective course in all tertiary educational institutions. The students should be sufficiently exposed to computer studies, entrepreneurship and technological practical in their institutions.

Keywords: Education Management, Managing Tertiary Education, Empowerment, Job Creation, Emerging Technologies and Innovation

Introduction

Tertiary education is widely conceived in Nigeria today as an indispensable tool for the people's socio-economic advancement, their political survival, and for the fullest realization of their aspirations and potentialities. Federal and State Governments through tertiary education invest in human capital development. with the sole aim of producing the required skilled manpower for managerial and technocratic levels of the economic, social and political sectors of the nation. Secondary school leavers in Nigeria also conceive tertiary education as a legitimate passport not only to self-fulfillment, but ladder to higher socio- economic in the society. In the same vein, individuals, groups and organizations hold tenaciously to the fact that tertiary education is a formidable instrument that could be judiciously used in Nigeria to wipe out all social vices, economic woes and ills that usually plague an illiterate society (Amaele, 2015). Thus, an educated Nigerian equipped individual with the

skills, knowledge and character to be able to take his rightful place in the country. In this complex society, he should not be in the state restlessness of job seeking and poverty that faces the present graduates in our society, but be empowered with technological and innovative skills for self-reliant. So, the product of the Nigerian educational system enable individual to take his place meaningfully in the society and make positive contributions to national development through the knowledge, skills and exposures that acquired from the educational system. As tertiary education is well embraced in the society, the demand for this level of education in the last three decades, precisely between 1984 and 2015, had been unprecedented (Adesina cited in Nwankwo, 2018).

The application of emerging technologies is on high rise in higher education sector worldwide. More and more lecturers, sometimes are prompted by their students, to using technologies, such as Facebook, which are familiar



to students in their social lives, for informal and formal learning. What are emerging technologies? One of the most cited definitions of emerging technologies is found in the yearly Horizon reports and defines emerging technologies as those technologies which are likely to have a large impact on teaching, learning, or creative inquiry on college and university campus within the next five years (Johnson and Adams 2011). Emerging technologies allow an individualized, flexible and differentiated focus on learning needs and pedagogy (Bates and Sangra, 2011) and provide a more learner controlled rather than teacher-controlled 'one-size-fits-all' approach (Johnson and Adams 2011). Social media provide opportunities for collaboration, co-creation, learning and interaction, thus contributing to improved teaching and learning. These affordances have also been noted in other studies (Francis, 2016, Mishra, 2018 and Wankel 2011). Veletsianos (2010) defines emerging technologies as tools, technologies, innovations, and advancements utilized in diverse educational settings to serve varied education-related purposes, and continues to list the following characteristics of emerging technologies: (1) they may or may not be new technologies; (2) they change rapidly so are always in a state of coming into being; (3) they go through cycles of hyped expectations; (4) they are in a continuous state of being understood and researched; and (5) they have potential for transforming social practices. The adoption of emerging technologies to enhance teaching and learning is thus dependent upon institutional resources being allocated to fund, evaluate and reward innovative pedagogical practices (Bates and Sangra 2011). Thus, research is premised on the fact that tertiary education management (TEM) cannot afford to ignore the emerging technologies and innovations already in use in the contemporary society, yet the pedagogical value of emerging technologies in TEM remains unexploited. Educational management refers to the administration of the educational system in which a group combines human and material resources to supervise, plan, strategize, and implement structures to execute an education programme, (Connolly, Fertig and Micheal 2017). Education is the equipping of knowledge, skills, values, beliefs, habits, and attitudes with learning experiences to the members of the society. Education system is an

ecosystem of professionals in educational institutions, such as government ministries, unions, statutory boards, agencies, and schools. The education system consists of political heads, principals, teaching staff, non-teaching staff, administrative personnel and other educational professionals working together to enrich and enhance teaching and learning process, (Becta, 2010). At all levels of the educational ecosystem, quality management is highly required; management involves the planning, organizing, coordination, implementation, reviewing, evaluation, integration improvement of all institutions. Educational management as the identification, organization and coordination of human, material, physical and technological resources as well as other available education programmes, using them judiciously towards the attainment of objectives of education. Educational management as defined by Resser cited by Nwankwo (2010) is the utilization of physical and human resources through co-operative efforts and is accomplished by performing the functions of planning, organizing, staffing, directing and controlling. According to Mishra (2018) educational management is the process of utilizing appropriate materials in such a way to promote effectiveness in the development of human qualities. It includes all those techniques and procedures employed in operating the educational organizations in accordance with established practices. From these definitions, educational management can be simply defined as managerial process through which efforts of members of the educational system are co-ordinate, directed and guided towards the accomplishment of the goals of education, by carrying out management functions such as planning, organizing, directing, financing, supervising, monitoring, inspecting and evaluating of performance.

Statement of Problems:

Effective implementation of emerging technologies in our educational system remains a great problem. The inadequacy of technologies equipment at institutions and particularly in classrooms is the most important of these obstacles. The other primary obstacle is the lack of educator's knowledge and skills to use technology based methods during the period of covid-19. Lack of the technology-based Teaching Resources, within this



study was also a big issue, it has been observed that the support to educators by school managers and other authorities is very limited in terms of technology-based teaching resources and materials as a result of poor management. Similarly, the resources obtained from expert institutions or professional producers are extremely rare and this lead an increase of unemployment of the youths in the society.

Educator's resources-sharing websites play a crucial role in the transmission of technology resources. All of the participant teachers who use technology resources in their classes stated that they benefit from these websites. However, this situation brings some problems in terms of the quality of resources and competence teachers handling equipment in teaching in the schools. Nearly all of these were PowerPoint presentations. Their contents included mostly factual information about the topic, but there is no much teaching activities reflecting the innovative and constructivist approaches. Otherwise, their visual qualities are generally very poor.

The potential of the technologies-based resources depends on their innovative qualities regarding teaching methods and content knowledge. The technologies based resources used by the teachers observed in this study are not adequate in terms of pedagogic approach, content knowledge or technological design. The lack of innovative and quality teaching resources is a very important against the effective and productive integration of technologies into education is an obstacle, not only that, incessant increase of unemployed youths in the society. Thus, the study sought to ascertain the Impact of Emerging Technologies and Innovations in the Management of Secondary Education for Societal Reengineering in Ebonyi State

Purpose of the Study

The main purpose of the study is on Impact of Emerging Technologies and Innovations in the Management of Tertiary Education for Societal Reengineering in Ebonyi State. Specifically. the study sought to:

1. to ascertain the extent impact of emerging technologies on Tertiary Education management for empowerment and job creation in Ebonyi State.
2. To examine the impact of emerging innovation on Tertiary Education

management for empowerment and job creation in Ebonyi State.

Scope of the Study

The study was focused on Impact of Emerging Technologies and Innovations in the Management of Tertiary Education for Societal Reengineering. The content covered:

Education management, Emerging innovation, emerging technologies and job creation. Geographical scope; Ebonyi has thirteen (13) local government areas as well as local development centers created by the state government. Ebonyi State was created from former Abia and Enugu states on October 1st 1996 by the then General Sanni Abacha regime since then has received two federal institutions like Akanu-Ibiam Federal Poly-technic and Alex-Ekweme Federal University, Ndufu-Alike, and other state tertiary institutions. Ebonyi State, an inland South-Eastern States of Nigeria covers 5,530 square kilometers and is populated primarily by Igbos. Its capital and largest city is Abakaliki. The State is bounded to the north by Benue State, the west by Enugu State, to the south by Imo and Abia States and to the east by Cross River State. The study will be restricted to academic staff.

Research Questions

The following research questions are formulated to guide this study:

1. To what extent does emerging technologies influence tertiary Education management for empowerment and job creation in Ebonyi State?
2. To what extent does emerging innovations influence Tertiary Education management for empowerment and job creation in Ebonyi State?

Methodology

The design adopted for the study was descriptive survey. Descriptive survey is concerned with describing, coordinating, analyzing and interpreting condition that exist about a phenomenon. The study was carried out in Ebonyi State, the state was created from former Abia and Enugu States on October 1st 1996 by the then General Sanni Abacha regime since then has receive two federal institutions like AkanuIbiam Federal Poly-technic and Alex-Ekweme Federal University, Ndufu-Alike, and other state tertiary institutions. Ebonyi State, an inland



South-Eastern States of Nigeria covers 5,530 square kilometers and is populated primarily by Igbos. Its capital and largest city is Abakaliki. The population of the study was made up senior academic and administrative staff of Akanu-Ibiam Federal Polytechnic and Alex-Ekweme Federal University, Ndufu-Alike, among other state tertiary institutions (Ebonyi State Ministry of Education, 2021). Simple random sampling technique was used to draw a total of respondents of 200 academic and administrative staff. The instrument for data collection was a researcher structured questionnaire. The instrument was designed to elicit information from the respondents on impact of emerging technologies and

innovations in the management of tertiary education for societal reengineering (IETITEMFJOC) in Ebonyi State. The items were rate on four-point response scale of; Very High Extent, High Extent, Low Extent and Very Low Extent. These have corresponding value of 4, 3, 2, and 1 respectively. The instrument was validated by three experts. The comments and suggestions made by the experts were used to modify the items on the instruments. Cronbach Alpha procedure was used to test the reliability coefficient which yielded a coefficient of 0.87. In taking decision for mean, range values were adopted. That is 1.00-1.49 for VLE, 1.50 — 2.49 for 2.50 — 3.49 for HE and 3.50 -4. 00 for VHE.

Results

Research Question 1. To what extent do emerging technologies influence Tertiary Education management for empowerment and job creation in Ebonyi State? The data collected through questionnaire were analyzed based on the three research questions developed for the study.

Table 1: Showing the influence Tertiary Education academic and administrative management staff application of emerging technologies for empowerment and job creation in Ebonyi State.

S/N	ITEM	N	200	VHE	HE	LE	VLE	X	STD	Dec
1	The adoption of powerpoint Apps and Projects greatly improved Tertiary education empowerment and job creation	200	150	50	0	0	0	3.75	0.43	VHE
2	The use of WPS and word processing Apps for curriculum activities improved Tertiary education empowerment and job creation.	200	150	50	0	0	0	3.75	0.43	VHE
3	The adoption of CBT Technologies for evaluation greatly improved Tertiary education empowerment and job creation.	200	150	50	0	0	0	3.75	0.43	VHE
4	The use of Laptops and Android phones for effective communication greatly improved Tertiary education empowerment and job creation.	200	150	50	0	0	0	3.75	0.43	VHE



Grand Means

3.75

0.43

VHE

The result from the data gathered items, 1,2,3,4, with a mean score of; 3.75, 3.37, 3.75 and 3.75 indicated that emerging technologies influence Tertiary Education management for empowerment and job creation in Ebonyi State to a very high extent.

Research Question 2. To what extent do emerging innovations influence Tertiary Education management for empowerment and job creation in Ebonyi State'?

Table 2: Showing the influence of emerging innovations on Tertiary Education academic and administrative management staff for empowerment and job creation Ebonyi State.

S/N	ITEM	N	VHE	HE	LE	VLE	X	STD	Dec
5	The application of Social media and E-learning platforms for management of instructional programme greatly improved quality Tertiary education empowerment and job creation.	200	150	50	0	0	3.75	0.43	VHE
6	The application of whiteboard and marker into management of instructional programme greatly improved Tertiary education empowerment and job creation.	200	150	50	0	0	3.75	0.43	VHE
7	The application of Facebook. WhatsApp and email for staff, students' personnel and school community relation management greatly improved Tertiary education empowerment and job creation.	200	150	50	0	0	3.75	0.43	VHE
8	The application of online and cloud database for record keeping greatly improved Tertiary education empowerment and job creation.	200	150	50	0	0	3.75	0.43	VHE
Grand Means			3.75	0.43	VHE				

The result from the data revealed that items, 5,6,7,8, with a mean score of; 3.75, 3.37, 3.75 and 3.75 shows that emerging innovations influence Tertiary Education management for empowerment and job creation in Ebonyi State to a very high extent.

Discussion of Findings

Result in Table one on the extent to which emerging technologies influence Tertiary Education management for empowerment and

job creation in Ebonyi State. Based on the responses of the respondents on items 1-4, which were on the adoption of power point Apps and Projects greatly improved Tertiary education



empowerment and job creation, the use of WPS and word processing Apps for curriculum activities improved Tertiary education empowerment and job creation, the adoption of CBT Technologies for evaluation greatly improved Tertiary education empowerment and job creation and the use of Laptops and Android phones for effective communication greatly improved Tertiary education empowerment and job creation recorded to very high extent. The finding is in line with Ferry (2021) who asserted that the impact emerging of technologies in educational sectors aid in the reduction of unemployment as many skills are discovered for self-reliance. Result in Table two on the extent do emerging innovations influence Tertiary Education management for empowerment and job creation in Ebonyi State. Responses of the respondents on items 5-8, which were on the application of Social media and E-learning platforms for management of instructional programme greatly improved quality Tertiary education empowerment and job creation, the application of whiteboard and marker into management of instructional programme greatly improved Tertiary education empowerment and job creation, the application of Facebook, WhatsApp and email for staff, students personnel and school community relation management greatly improved Tertiary education empowerment and job creation and the application of online and cloud database for record keeping greatly improved Tertiary education empowerment and job creation were to a very high extent. The findings agreed with Veletsianos (2010) that innovation in technologies improve employability in the society with the diverse competencies required in the sector.

Conclusion

The primary goal of tertiary educational institutions in Nigeria is producing the required skilled manpower for managerial and technocratic levels of the economic, technological, social and political systems and contribute immensely to good governance and national security could be effectively accomplished, if education is effectively managed. For the purpose of managing education for empowerment and job creation in the Era of Covid-19 pandemic through emerging

technologies and innovation, there are indication that technologies improved job creation. Government should effectively fund schools for effective procurement of technologies equipment in tertiary institutions. Since everyone benefits immensely either directly or indirectly from tertiary education, its finance should be a joint responsibility of the Government, business organizations, voluntary, agencies, communities, Non-Governmental Organizations and the households.

Recommendations

The following recommendations and submissions are made towards effective management of tertiary education in Ebonyi State and Nigeria at large:

1. Computer studies, entrepreneurship and technological studies should be made compulsory elective course in all tertiary educational institutions.
2. The students should be sufficiently exposed to computer studies, entrepreneurship and technological practical in their institutions.

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