INCURSIONS OF MODERN TECHNOLOGIES IN TEACHING AND LEARNING: CHALLENGES AND OPPORTUNITIES IN BUSINESS EDUCATION PROGRAMMES IN NIGERIA

Dr. Emefiele Daniel Chukwudi
Department of Business Education
Faculty of Education and Arts
Madonna University, Nigeria
E-mail: dansuccess9@gmail.com

Dr. Nwagu Eucharia
Department of Business Education
Faculty of Education and Arts
Madonna University, Nigeria
Nwagueucharia20@gmail.com

Abstract

This paper provided meaningful insights on the need for the adoption of modern technologies in teaching and learning. Education has been transformed by technological advancements. The significance of technology in classrooms cannot be overstated. Indeed, the introduction of computers into education has made it simpler for instructors to transfer information and for students to retrieve it. Changes in technologies have introduced a new method of instruction in business education, from classroom teaching to technological based teaching and learning. Therefore, there is an urgent "need for the introduction of modern technologies in the teaching and learning of business education courses." These modern technologies will aid business education students in learning new skills, new knowledge, and application of new methods and processes of work execution and business operations. It is against this background this paper examines modern technologies in business education programme, challenges of modern technologies in business education, opportunities of technologies in business education and benefits of modern technologies in business education programme. The conclusion drawn was that business educators should seek development where necessary on the use of modern technologies in teaching and learning. The paper therefore recommends that school management should partner with private sectors to provide more modern teaching and learning technologies for business education programme among others.

Keywords: Modern Technologies, Teaching and Learning, Challenges, Opportunities, and *Business Education Programme.*

Introduction

Education in the 21st century has a lot to do with digital transformation. Technology has transformed the way knowledge is transferred, the way tutors teach, the structure of academic presentation and the way students learn. Technology is simply the application of machines and software to achieve practical goals, it involves tools, techniques and systems required to solve certain problems. Technology is constantly evolving and has played a significant role in shaping the world, it has impacted various aspects of human life, including education and communication. This is the reason Nwadiani and Egbri (2016) noted that modern technology has altered the way things are done globally. Modern technologies have brought visible changes in the ways people view and do things. It is crystal clear that change is the only constant factor in life and it must be noted that the methods of instruction and learning used in Business Education must constantly develop to reflect that which is feasible in workplace (Emefiele, 2022).

Modern technologies in education are those machines or devices used in the execution of our teaching and learning activities to make them easy, interesting, interactive and goal oriented (Onuegbu, 2020). Modern technologies have the potential to impact the lives of people in education significantly. Ruxwana (2009), reported that increased use of technologies enhances the delivery of quality services by providing access to digital development for continuous improvement, improving access to basic services and exchange of knowledge, and allowing communities to focus on delivering services where they have a comparative advantage. Technologies are changing rapidly, as are sectors and businesses using them (Aruleba & Jere, 2022). The need to implement and introduce new approaches to delivering efficient technological services in education has thus been accompanied by significant advances in technology. Modern teaching technologies are transforming education by integrating digital tools, personalized learning, and collaborative platforms to enhance student engagement and learning outcomes. However, it is highly regrettable that the graduates of business education of today are not taught with adequate modern technologies and this ugly trend may hamper their chances of securing gainful employment in labour market. In response to the needs of the individuals and the communities, it is necessary to modify the operations of business education in Nigeria through proper integration of modern technologies in teaching and learning.

Business Education has several definitions, most of the definitions highlight its occupational nature. Business education is a programme that gives an occupational identity. This training provides individuals with knowledge, skills, understandings and attitude for employability and advancement in office occupations as well as the teaching of business subjects. It is designed to furnish its recipient with business skills and competencies required for use in offices, business environment and business policy analysis (Emefiele, 2022). Business Education programme as a broad and comprehensive discipline whose instructional programme encompasses knowledge, skills, vocation and aptitude needed by all citizens in order to effectively manage their personal businesses and also function in the economic system. It is an aspect of vocational education that is directed towards developing the learner to become productive in teaching, paid employment and self-employment (Anyeaeneh & Nkegwu, 2015). Chiadika, Iwendi, Fassasi and Onianwa (2014), defined Business Education as a programme that equips its recipients with necessary business skills as it encompasses the knowledge, attitudes and skills needed by all persons in order to effectively manage their personal business, economic system and be gainfully. The skills, competencies and knowledge acquired in Business Education programme helps to address the issue of unemployment, increase productivity and accelerate the development of a nation.

Teaching and learning in business education involve the acquisition of knowledge, skill and attitude required in the place of work. Obi (2005) noted that a teacher does not walk into the classroom as soon as a course is assigned to him or her to start teaching. There is need for adequate preparation and understanding of the best way of delivering the lecture. Nwalado (2007) summarized the skills and knowledge required in teaching preparation as: the mediocre teacher tells, the good teacher explains, the superior teacher demonstrates and the great teacher inspires. In today's teaching and learning, students are inspired basically through the use of modern teaching technologies. In recognition of this fact, there is need for business educators in Nigeria to master the usage of modern technologies in teaching and learning.

Modern technologies in Business Education

Modern technologies have become accessible tools in education, business education inclusive. Mbachu in Onuegbu (2020) stated that most developed countries has explored the potentials of modern technologies to transform particularly instructional process. Business education programme has embraced certain modern technologies to improve students' learning and engagement. These modern technologies include:

Internet
The internet's relevance and accessibility has expanded over the years. Its value in the field of business education cannot be unseen at this point. However, it comes with certain dangers like fraud and engagement in unnecessary activities, but students benefit from utilizing the internet. Recently, the internet has permeated nearly every facet of human life. Students are highly engrossed with their Smartphone for learning (Ezewanmadu, 2021). They may access a variety of aid, tutorials, and other sorts of supporting information that they may use to cognitively continue expanding their understanding.

Projectors and Visual Aids
Visual pictures have a stronger attraction that sustains attention for proper engagement. Projectors and graphics help with learning activities. Effective teaching in business education relies on outstanding PowerPoint presentations and projections to make learning engaging, worthwhile and exciting. The usage of technology within schools like projectors may significantly increase engagement as well as motivation. Students want to view appealing material and anything that encourages them to think rather than simply reading text. Technology makes the learning process more efficient as well.

Storage materials: storage materials like hard drive, flash drive, CD-ROM, memory cards are utilized for information collection storing for future use in business education programme (Amesi, 2020).

Computers: computer is the major means of instruction as it relates to modern technologies in business education. Business education programmes at all levels of education, utilizes computer for instruction and other administrative work.
Computer software applications: business education programme rely on the utilization of word processors, spreadsheet, graphics design, desktop publishing, PowerPoint etc.

Challenges to effective utilization of modern technology in Business Education programme
Some challenges tend to be militating against the efficient utilization of modern technologies in our school system. Many tertiary institutions in Nigeria, are faced with challenges of using modern technology in teaching and learning. Ojeaga and Igbinedion (2012) noted that the use of e-learning in the country's educational system is sluggish or even a fantasy. This is due to the slow pace of e-learning is as a result of inadequate computers and internet accessibility. However, these challenges confronting the adoption of modern technology in business education programme include:

Inadequate funding of Business Education programme: Inadequate funding of business education programme is a major barrier to the use of modern equipments in business education. Most business educators are using the available facilities. This situation does not duplicate realities in the work place. Education generally is not well funded by the government of Nigeria.
Inadequate facilities: Most schools offering business education programmed in Nigerian tertiary institutions do not have a standard computer laboratory space and other useable equipments for business education and where they exist, they are grossly inadequate. This condition is quite unfortunate and demoralizing to know that most business education departments still depends on computer science laboratory or general ICT laboratory. These facilities have restricted access.
Inadequate ICT courses in the curriculum: there are few ICT courses "in the curriculum of business education in Nigeria," and often time, these courses are taught theoretically without the use of modern technologies. Federal Government of Nigeria (FRN, 2004) categorically stated "that students in Nigeria are only taught theory without the practical aspect of the courses" they offered. Nwaiwu, Onwuagboke, Dikeocha and Ikwugbado (2016) observed that even with the few

courses that incorporates technology in business education, much have not been achieved in equipping the students with adequate knowledge.

Inadequate modern technologies in schools: inadequacy of facilities and machine is a major challenge to the proper adoption of modern technology in business education programme. Modern technologies like interactive board, teleconferencing, digital library, multimedia system, digital classroom, wireless application, internet, e-mail facilities and facsimile transmission. Madu, Obidi and Genevive (2015) observed that "technologies such as multimedia circuit TV, closed circuit TV, e-mail facilities, e-banking/commerce facilities, media typewriter and cyber cafe internet are not available in our tertiary institutions. Many tertiary institutions in Nigeria do not give adequate priority and attention to the adoption and utilization of modern instructional technologies needed for teaching and learning. The dearth of these modern technologies makes it difficult to teach and prepare business education students for the use of modern technologies now and in future world of work."

The model office: This is an office that duplicates a modern office with state-of-the-art facilities. It is a place where students' carryout drills and exercises. Without the practical aspect of the programme, what is left therefore is theory, and this is a major reason for inadequate skill acquisition among business education graduates.

The Teacher: The teacher is faced with a lot of challenges such that he has to adjust with the way or new method of teaching with modern technologies. This requires continuous development and retraining which some business educators are not willing to embark on. Bongotons and Onyenwe (2010) asserted that most business educators are not proficient in the use of modern technologies and this has hindered the teaching of ICT related courses effectively. This is the major reason why ICT courses are not well or adequately taught in our universities. It is highly regrettably that a country like Nigeria is confronted with inadequate electricity supply and infrastructural facilities which are capable of distorting the usage of technology in teaching and learning situation. Also, the awareness and utilization of modern technologies in business education are still at the infant stage, what a pity for a generation that is witnessing advanced technological revolution and there is nothing to display or showcase during teaching and learning.

The Cost of Modern Technologies

Acquiring and maintaining digital tools are very expensive. This can prevent most tertiary institutions from purchasing such tools for teaching and learning and can restrict access for many institutions. Only institutions that have money may enjoy the latest devices and software, those with limited resources may struggle to provide even basic technological support. The big question here seeking for answer is how can we ensure that all students, regardless of their institutions, have access to the essential technological tools that can enhance their learning experience?

Technical Issues

Technical issues may arise at any moment, creating interruptions that hinder the learning experience since technology can be unpredictable. A situation where faulty internet connection may disrupts an online class, leaving students and teachers grappling with uncertainty. Such disruptions not only waste valuable instructional time but also result in missed learning opportunities that are difficult to recover.

Nigerian Value System for skills: In Nigeria today too much emphasis is placed on certificate not minding whether the holder possesses the required knowledge and skill. But advanced societies value those with skills. In fact, the value system in western world depends on the person's skills and knowledge, and not on the pile of academic degrees one has.

Opportunities of Technologies in Business Education

There are many unemployed graduates in Nigeria today. The major reason for this could be traced to our educational system. There is much emphasis on certificate rather than competency

and this is responsible for the of unemployment problem currently witnessed in Nigeria. Thus, what Nigerians need today is an educational system which provides adequate opportunity for skill learning and practical experience for self-employment and self-reliance. This is what business education offers, Business Education is an integral part of Vocational Education which is the education for Self-reliance and employability. Vocational Education in general is a way to equip youths for self-employment, leading to self-reliance. It is very essential and without which economic development can be achieved in this country. Too much neglect of this type of education has resulted in mass unemployment and graduate's involvement in crimes and internet fraud since there is limited means of gainful employment after school. Federal Republic of Nigeria (2013) acknowledged that one of the objectives of business education is to help the beneficiary to appreciate the world around him and contribute maximally to the social and economic development of the nation. Ezeonwurie (2021) stated that government shall take crucial measures to ensure that quality of instruction at all levels of education shall be focused towards acquisition of functional skills and competencies necessary for self-employment which will eventually lead to unemployment reduction in Nigeria. However, the major opportunities of technology in business education
programme are:

To Engaging Learning Experience
Technology has transformed learning, making it far more interactive and immersive. Providing platforms like Moodle, Canvas and Google Classroom. This has helped to facilitate seamless communication between teachers and students with respect to interactive lessons and and sharing of multimedia resources. Also, with tools such as apps, simulations, and educational games, students can explore concepts through dynamic methods. This approach not only captivates students' interest but also caters to diverse learning styles, enhancing their ability to retain and understand information more deeply (Ezeonwurie, 2021). Through personalized learning and hands-on digital resources, technology creates a better-off, more adaptable educational experience for learners.

To Interact with Learning Resources
Learning resources like educational games, simulation and virtual reality experiences engages students and provides opportunities such as hand-on learning. These resources will help business educator and their students enjoy the act of teaching and learning as well as enhancing the understanding of complex concepts and retention of such.

To Access Information
Students can access an expansive library of knowledge online, making it easier than ever to research, read, and learn about virtually any subject, anywhere. The days of scouring library stacks for research materials are fading, replaced by the immediacy and breadth of information technology offers. This digital accessibility levels the playing field, allowing students from diverse backgrounds and locations to delve into resources that might otherwise be out of reach. Technology has, in effect, democratized knowledge, empowering students to explore and engage in the world of information without boundaries.

For Collaboration and Communication
Technology encourages team work among students through virtual classrooms and collaborative documents. This digital connectivity fosters a collaborative spirit, making learning a more collective experience, where insights and support are just a message away. Vas (2025) noted that it has revolutionized the way students collaborate and connect with both peers and educators. Through online discussion fora, video conferencing, and social media platforms, students can seamlessly work on group projects, exchange ideas, and seek guidance from teachers beyond the classroom walls. Technology bridges geographical and temporal divides,

creating an open environment for constant interaction and a more dynamic, supportive educational community.

For Personalized Learning

Modern teaching lays emphasis on personalized learning where business educators may adjust their teaching to meet expectations of the 21st century education. With technology, teachers can modify the learning experience to each student's unique needs and preferences. Technologies allow educators to offer customized feedback and resources that target specific areas for improvement. This personalization fosters a more effective learning environment, where students receive support that aligns with their learning styles and pace, helping them progress more confidently (Vas, 2025). Also, technology engages students with a learning journey that is responsive, focused, and genuinely accustomed to their personal academic growth.

Innovative Teaching Methods: Business educators now have access to several student centered methods of teaching like flipped classrooms, problem solving and inquiry-based learning that promotes active participation of the learners and critical thinking. This will help to adjust from the traditional method of learning and engage more of collaborative learning.

Benefits of Modern Teaching Technologies

The involvement of technology in education will undoubtedly shape the future of learning and open the door to limitless possibilities as it continues to evolve. Educators and policymakers face many challenges when trying to fully realize the potential of technology in the classroom, including the digital divide, distractions, data security issues, the need for professional development, and the upkeep of infrastructure. Schools can overcome these challenges and create a more effective and inclusive learning environment by implementing proactive measures, such as bridging the access gap, promoting mindful technology use, prioritizing student data privacy, providing professional development, and investing in robust technological infrastructure. However, the main benefits of modern teaching technologies are:

Enhanced Engagement: By incorporating interactive and multimedia elements, modern technologies make learning more engaging and enjoyable for students. It will also foster digital competence of teachers and students especially in the use of hardware such as computers and Internet-enabled smartphones (Ezenwamadu, 2021).

Improved Learning Outcomes: Personalized and adaptive learning strategies help address individual student needs, leading to better academic performance.

Preparation for the Future: Modern teaching technologies equip students with essential skills for the 21st century, including critical thinking, collaboration, and digital literacy. It prepares students for the task ahead of them as they progress in academic journey.

Conclusion

Technology has changed instructional delivery in this 21st century. Teaching strategies have undergone a paradigm shift from traditional ways to modern ways. The teacher's role has also changed from being a talking encyclopedia to being a facilitator of learning. Students' role has also changed from being receivers of spoon-fed information to being creator of learning. With the advent of modern technology, especially the computer and internet, classroom instruction has changed. Modern teaching technologies have transform educational landscape by fostering a more interactive, personalized, and collaborative learning environment that prepares students for future challenges. Technology in education has the power to completely transform how teaching and learning occur. However, the challenges of technology in education are enormous, including issues related to infrastructure, accessibility, digital literacy, distractions, and privacy, need to be effectively addressed. By overcoming these obstacles, Business Educators can harness the potential of technology to create inclusive, dynamic, and creative educational experiences that

equip students with the necessary skills for success in the twenty-first century and prepare them for the digital world. It is therefore concluded that business educators should seek development where necessary on the use of modern technologies in teaching and learning, while students should be trained to acquire 21st century skills and the needs of labour market.

Way forward

1. School management should partner with private sectors to provide more modern teaching and learning technologies for business education programmes
2. Business educators should utilize modern technologies in their instructional delivery by engaging students in the use of modern technologies in learning.
3. Government and school management should provide in-service training and development programmes for business educators on the use of modern technologies in teaching and learning.
4. Curriculum planners/designers should review current business education curricula in tertiary institutions to inculcate efficient adoption of technology in teaching and learning.

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