



Artificial Intelligence Use and Ethical Issues in Business Education Implementation in Tertiary Institutions in Anambra State: The Way Forward

Chinwe Sussan Okeke

Department of Business Education

Nwafor Orizu College of Education, Nsugbe

sussano18@gmail.com; 08035412675

Abstract

This study investigates the use of AI and the associated ethical issues in the implementation of Business Education in tertiary institutions in Anambra State, Nigeria. The study employed a descriptive survey research design. The population of the study was 935 comprising business education lecturers and final year students in public tertiary institutions in Anambra state. Data were collected from 243 respondents which made up of 78 Business Education lecturers and 165 students across public tertiary institutions in the state using stratified sampling method. The major instrument used for collection of data was questionnaire structured in four Likert scale type. The content of the instrument was validated through test re test method and it yielded 0.80. Findings revealed that the respondents agreed that AI tools are not made available in the institutions studied even though the lecturers apply them using their private electronic devices. Besides, most of the lecturers are not competent in the use of AI and are limited to the use of chatGPT. Again, the study identified significant ethical concerns, including academic dishonesty, data privacy, digital inequality, and a lack of clear institutional policies. The study concluded that while AI holds immense potentials to enhance Business Education, its unregulated use poses a threat to academic integrity and equity. The paper proposes a strategic framework for the ethical adoption of AI, emphasizing the development of institutional policies, digital literacy training, and extensive AI pedagogy development strictly for lecturers' wise integration in classroom implementation.

Keywords: Artificial Intelligence, Business Education, Ethical Issues, Implementation.

Introduction

Artificial Intelligence (AI) is the newest advance computer systems capable of performing tasks that typically require human intelligence, such as reasoning, problem-solving, pattern recognition, and decision making (Luckin, 2018). In the educational sector, AI has been applied in adaptive learning platforms, automated grading systems, intelligent tutoring systems, and predictive analytics tools (Holmes et al., 2019). It has rapidly become a transformative force in higher education worldwide. Apparently, AI has become a mono system that performs tasks that traditionally require human intelligence, such as natural language processing, adaptive learning, and automated decision-making (Holmes et al., 2022). In the educational sector, AI applications include intelligent tutoring systems, chatbots, automated assessment tools, and predictive analytics platforms designed to monitor student performance and personalize learning (Luckin et al., 2016; UNESCO, 2023). Several studies have documented the advantages of AI in tertiary education. For example, adaptive learning platforms have been shown to improve student engagement and academic performance by tailoring content



to individual needs (Suresh et al., 2021). Similarly, AI-powered feedback tools help accelerate student learning by providing instant corrective responses, a task that would otherwise require significant faculty time (Zawacki-Richter et al., 2019). These technologies contribute to more efficient processes in teaching, learning, and academic management

Globally, AI is reshaping educational practices by enabling personalized learning experiences and enhancing institutional efficiency (UNESCO, 2021). Business Education programs in Anambra State's tertiary institutions are tasked with producing graduates who can thrive in a digitized global economy. The integration of AI is seen as a necessary step to achieve this goal.

Business education, which focuses on managerial competence, entrepreneurship, accounting, marketing, OTM and economics, has incorporated AI into curriculum delivery and learning activities to a reasonable extent (Brynjolfsson & McAfee, 2017). This is evidenced by the numerous advantages from AI-driven simulations, analytics tools, and automated feedback systems. Thus, these technologies enhance experiential learning and analytical skills development. The integration of artificial intelligence is particularly significant in Business Education due to the dynamic and technology-driven nature of modern business environments. AI has the potential to enhance instructional delivery, improve students' analytical and decision-making skills, personalize learning experiences, and better prepare graduates for the world of business. In other words, AI tools enable the simulation of real-world business scenarios, support data-driven decision-making, and enhance students' analytical and digital competencies required for employability in the 21st-century workplace. Studies indicate that AI-supported instructional strategies that can improve curriculum implementation and foster innovative teaching in business education and related disciplines (OECD, 2021; Zawacki-Richter et al., 2019).

However, the unregulated and often invisible adoption of AI tools by both students and lecturers is creating a silent crisis. Students may use AI to complete assignments without developing foundational business competencies, while educators may lack the training to detect AI-generated work or to use AI ethically in their pedagogy. This situation is further complicated by the absence of institutional policies, leading to inconsistent practices, potential data breaches, and an uneven playing field for students with varying access to technology. The core problem is the disconnection between the rapid technological adoption and the slow development of ethical frameworks to govern it. This means that although AI has offered pedagogical benefits, it also raises some worrisome ethical issues such as data privacy and security, algorithmic bias, academic integrity, equity and accessibility, transparency and accountability. Research indicates that many institutions lack robust data protection policies, increasing risks of unauthorized access, misuse, or leakage of student records (Williamson & Eynon, 2020).

In Nigeria, digital transformation in higher education has accelerated, particularly after the COVID-19 pandemic. Tertiary institutions in Anambra State comprising universities, polytechnics, and colleges of education; are increasingly adopting digital technologies and platforms in teaching. However, the implementation of artificial intelligence in business education is still at its birth stage. While some

institutions are beginning to experiment with AI-enabled teaching and learning tools, there is limited empirical evidence on the extent of their use and the ethical measures guiding their application. Existing studies suggest that challenges such as inadequate infrastructure, limited technical expertise, and weak policy frameworks may affect both effective implementation and ethical compliance in AI adoption (Adebayo & Abdul-Rahman, 2022; Okoye & Eze, 2023). Nevertheless, researches have shown that reliable Internet connectivity, institutional leadership support, and digital competence significantly influence successful AI adoption (Ifenthaler & Yau, 2020)

It is against this background, that this study seeks to assess the use of artificial intelligence in business education implementation and its associated ethical considerations in tertiary institutions in Anambra State. Systematically, through serious investigation on the current practices and ethical concerns regarding AI use, the study would obviously provide evidence-based insights that can guide institutional policies, promote responsible AI adoption, and contribute to the sustainable development of contemporary business education in the digitalized world.

Objectives of the Study

The main objective of this study is to assess the use of artificial intelligence in business education implementation and the associated ethical considerations in tertiary institutions in Anambra State.

Specifically, the study seeks to:

1. Determine the current level of use of AI tools in business education implementation in tertiary institutions in Anambra State.
2. Identify ethical issues associated with AI use in business education implementation in tertiary institutions in Anambra State.
3. Recommend strategies to address the identified ethical concerns.

Research Questions

The following research questions were formulated to guide the study:

1. What is the current level of use of AI tools in business education implementation in tertiary institutions in Anambra State?
2. What ethical issues are associated with the use of AI in business education implementation in tertiary institutions in Anambra State?
3. In what ways can the identified ethical issues of AI in business education implementation in tertiary institutions in Anambra State be addressed?

Methodology

This study adopted a descriptive survey research design which is seen as appropriate because it allowed the researcher to systematically gather information from a large group of respondents regarding the use of AI in

business education implementation and the associated ethical issues. The population of the study was 935. This comprised lecturers and students of business education programmes in all accredited public tertiary institutions in Anambra State that offer business education. The selection of this population is strictly on the basis that both lecturers and students are directly involved in teaching, learning, and assessment processes where AI tools may be adopted. Through stratified random sampling technique, 243 respondents were chosen across the institutions to be representatives of the entire population. A self-structured questionnaire of 25 items were designed in four Likert Scale type of Strongly Agree- SA, Agree- A, Disagree-D and Strongly Disagree- SD to elicit information from the respondents. The content validity was ensured by having the questionnaire reviewed by experts in business education while test re test method was used to determine the validity level of the instrument and it yielded 0.83 indicating high level. Data gathered were analysed using descriptive statistics of mean and standard deviation. For the acceptance and rejection, a bench mark of 2.50 was adopted.

Result

Research question 1: What is the current level of use of AI tools in business education implementation in tertiary institutions in Anambra State?

Table 1: Respondents' mean and standard deviation on the current level of use of AI tools in business education implementation in tertiary institutions in Anambra State?

S/N	Items	X	SD	Remarks
1	Artificial Intelligence tools are made available in my institution.	2.30	0.58	Disagree
2	Business education lecturers and students use AI for researching and writing projects.	3.28	0.69	Agree
3	AI is used for grading and assessment of assignments and tests	2.13	0.81	Disagree
4	AI tools enhance students' understanding of business concepts especially when preparing for exams.	3.19	0.72	Agree
5	AI supports personalized learning in business education.	3.04	0.51	Agree
6	Institutions provide training on AI tools for both staff and students.	1.92	0.77	Disagree
7	The institution provides adequate AI tools and ICT infrastructural support.	1.85	0.74	Disagree
8	Lecturers are competent in using AI tools for planning lesson contents, generating other instructional materials and teaching business education courses.	2.91	0.76	Agree
9	Students are encouraged to use AI responsibly for academic purposes via ChatGPT.	3.41	0.64	Agree
Grand mean & SD		2.67	0.69	

Table 1 above shows that the respondents agreed to all the items except 1, 3, 7 and 8 which scored 2.30, 2.36, 2.45 and 2.45. This indicates that AI tools are not made available in the institutions studied even though the lecturers apply them using their private electronic devices. Also, no lecturer uses AI automated grading and assessment system neither do the institutions provide needed ICT infrastructure to support AI application. Besides, most of the lecturers are not competent in the use of AI and are limited to the use of chatGPT.

Research question 2: What ethical issues are associated with the use of AI in business education implementation in tertiary institutions in Anambra State?

Table 2: Respondents' mean and standard deviation on the ethical issues associated with the use of AI in business education implementation in tertiary institutions in Anambra State.

S/N	Items	X	SD	Remarks
10	I am concerned about the privacy of my personal data when using AI tools	3.21	0.71	Agree
11	AI systems may expose institutional data to security risks	3.22	0.70	Agree
12	There are no clear institutional policies guiding AI usage	3.38	0.66	Agree
13	AI systems may produce biased or unfair academic outcomes.	2.95	0.79	Agree
14	AI usage increases the risk of plagiarism and academic dishonesty.	3.65	0.50	Agree
15	Ethical guidelines for AI use are clearly communicated to staff and students	2.34	0.68	Disagree
16	AI usage may reduce students' critical thinking and creativity skills.	3.62	0.53	Agree
17	Not all students have equal access to AI tools due to cost and infrastructure.	3.56	0.58	Agree
18	There is reduced student- lecturer interaction and personalized feedback.	3.05	0.76	Agree
19	Academic integrity and assessment validity may be eroded due to use of AI tools.	3.68	0.51	Agree
Grand mean & SD		3.27	1.03	0.64

Table 2 as shown above x-rays responses on the ethical issues associated with the use of AI in the tertiary institutions. Responses revealed that all the items listed are ethical concern except items 12 and 15 with mean rating of 2.30 and 2.34 respectively. This means that there are no clear institutional policies to guide use of AI. Also, none is clearly communicated to the staff and students.

Research question 3: In what ways can the identified ethical issues of AI in business education implementation in tertiary institutions in Anambra State be addressed?

Table 3: Respondents' mean and standard deviation on the ways identified ethical issues of AI in business education implementation in tertiary institutions in Anambra State can be addressed.

S/N	Items	X	SD	Remarks
20	It is important to monitor both the lecturers and students on the application of AI in business education implementation to avoid misuse.	3.04	0.51	Agree
21	There is need for institutions to organize regular training workshops on AI for the lecturers.	3.04	0.51	Agree
22	Business education lecturers should be transparent in the use of AI and as well give students orientation on the ethics of AI usage.	3.02	0.44	Agree
23	Government should provide funding to improve AI support infrastructure	2.77	0.46	Agree
24	There should be clear policies regulating AI use in business education by institutions	2.88	0.48	Agree
25	Institutional leadership support is needed for successful AI adoption.	2.65	0.44	Agree
Grand mean and SD		2.90	0.47	

Table 3 above showcases different ways to address the identified ethical issues of AI in business education implementation in tertiary institutions in Anambra State. All the listed items scored above 2.50 which indicates that they are possible ways to solve ethical related problems regarding the use of AI in business education implementation.

Discussion of the findings

Findings from research question one showed that institutions do not provide AI tool for business education implementation rather the lecturers and students consult mostly ChatGPT to beef up lecture materials they use in teaching the students and for students' assignments. This is in spite of the numerous advantages of AI use. Thus, the mean scores for student AI use (ranging from 2.91 to 3.41) indicate that generative AI tools like ChatGPT have become ubiquitous in student workflows, often without formal institutional guidance. This finding aligns with the work of Eke (2023), who documented the rapid adoption of ChatGPT in Nigerian universities and raised concerns about its implications for academic integrity.

The ethical concerns identified in this study are both numerous and significant. The finding showed that academic dishonesty (3.65) is the most critical ethical issue resonates with global debates about AI and academic integrity. However, there are many other ethical issues that demands immediate and consolidated framework to be able to overcome them for continuous use of AI in academics (Akgun & Greenhow, 2022& UNESCO 2021).

Findings from research question three on the ways to solve the identified ethical issues, a number of

solutions were found such as institutions organizing regular training workshops on AI for the lecturers (3.04), monitoring both the lecturers and students on the application of AI in business education implementation to avoid misuse (3.04), institutions providing clear policies regulating AI use (2.88), and Institutional leadership support is needed for successful AI adoption (2.65). These findings are in line with the views of Ifenthaler and Yau, (2020) who emphasized that reliable internet connectivity, institutional leadership support, and digital competence significantly influence successful AI adoption.

Conclusion

The use of AI in Business Education in Anambra State is no longer a future possibility but a present reality. This study has revealed that both the lecturers and students are already deeply engaged with AI tools. This indicates that artificial intelligence presents transformative opportunities for business education in tertiary institutions in Anambra State. However, its implementation raises ethical concerns relating to data privacy, bias, academic integrity, and equity.

While some institutions have begun integrating AI tools, policy development and ethical preparedness remain limited. More so, some educators and institutions lag behind in providing guidance, policies, and support. The ethical challenges identified in this paper included academic dishonesty, digital inequity, lack of policy, and concerns about critical thinking.

Thus, the way forward is not to ban AI but to strategically embrace it through a collaborative framework involving institutions, educators, students, and government. By developing clear policies, investing in human capacity and infrastructure, redesigning pedagogical approaches, and addressing the digital inequalities among the students in tertiary institutions in Anambra. Therefore, the goal should be to produce graduates who are not only proficient in using AI tools but also possess the critical thinking, ethical judgment, and business acumen that define true professional competence.

Recommendations

Based on the findings, the following recommendations are made:

1. The management of Tertiary Institutions should as a matter of urgency establish AI ethics committees, provide AI infrastructure support and invest in AI literacy programs for both the lecturers and students.
2. The Anambra State Government should partner with tertiary institutions to improve digital infrastructure, subsidize internet data for educational purposes to reduce digital access gap and include AI ethics and literacy in state education policy.
3. Business education lecturers should engage in continuous professional development on AI pedagogy.

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