INFLUENCE OF ARTIFICIAL INTELLIGENCE COLLABORATION ON JOB ENHANCEMENT OF BUSINESS EDUCATION LECTURERS IN PUBLIC TERTIARY INSTITUTIONS IN CROSS RIVER STATE, NIGERIA

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Abstract
This study ascertained influence of artificial intelligence collaboration on job enhancement of business education lecturers in public tertiary institutions in Cross River state. Two null hypotheses were tested. Correlational design was adopted for the study. The study comprised 63 business education lecturers in public tertiary institutions in Cross River state. Census approach was adopted for the study. Artificial Intelligence Collaboration and Job Enhancement Questionnaire (AICJEQ), was the instrument for data collection. The validity of the instrument was determined by three experts in University of Calabar and Cronbach alpha technique was used to test the reliability which yielded a coefficient of .81. The regression results revealed that Edmodo AI and Claude AI significantly enhance the performance of business education lecturers. It was concluded that, business education lecturers should adopt artificial intelligence collaboration for enhanced job performance. Based on the findings, it was recommended that business education lecturers should incorporate Edmodo AI into their teaching to enhance performance in this digital era. It was also recommended that government should organize training for business education lecturers on the use of Claude AI in their teaching in order to enhance their performance.
Key word: Artificial Intelligence, Collaboration, Job Enhancement.

Introduction
In recent years, the rapid integration of technology in education has expanded the roles of Business lecturers. They are now expected to incorporate digital tools, learning management systems, and e-resources into teaching to enhance student engagement and employability skills (Olawale & Adeleke, 2020). The competence of business education lecturers significantly influences the quality of instruction and student performance. Adequate qualifications, pedagogical skills, up-to-date ICT knowledge, and continuous professional development are essential indicators of lecturer effectiveness (Nneka, 2018). Research indicates that lecturers who regularly update their knowledge base through workshops, industry linkages, and academic research deliver higher-quality teaching outcomes (Okorie & Eze, 2021). Moreover, the changing business environment requires lecturers to possess dynamic skills, including

digital literacy, problem-solving ability, and innovative teaching strategies (Ubulom & Ogwo, 2017). Without continuous training, lecturers may struggle to keep pace with emerging trends in business and technology.

Business education lecturers in Nigeria face numerous challenges that hinder their productivity and teaching effectiveness. These include inadequate teaching resources, lack of modern instructional materials, insufficient funding, heavy workload, and limited opportunities for professional development (Etonyeaku, 2024). Additionally, challenges such as poor internet connectivity and lack of functional ICT equipment limit lecturers' ability to integrate technology effectively in teaching and poor curriculum review (Olawale & Adeleke, 2020). With globalization and the rise of digital economies, business education lecturers must constantly adapt to emerging educational and business innovations. As noted by Akpan (2022), the future of business education depends on lecturers' ability to blend theoretical concepts with practical skills, engage with industry trends, and adopt flexible, technology-driven pedagogies. This shift demands sustained investment in lecturer development and modern teaching infrastructure to enhance their job performance.

Job enhancement refers to the deliberate redesign of job roles to increase employees' sense of responsibility, autonomy, skill variety, and opportunities for personal growth. It is based on the principle that enriching work tasks can improve employee motivation, satisfaction, and performance. Lunenburg (2021) maintained that enhancing a job means expanding meaningful tasks or increasing the depth of responsibilities rather than simply adding more work. Organizations that adopt job enhancement strategies often experience higher levels of job satisfaction because employees feel valued, competent, and empowered (Herzberg, 2018). Enhanced jobs also help reduce staff turnover, as workers become more committed to roles that challenge and fulfill them. Organizations must therefore ensure that job enhancement aligns with employee abilities and artificial intelligence collaboration systems.

Artificial intelligence collaboration in education refers to the interaction between educators, learners, and artificial intelligence (AI) systems aimed at improving teaching, learning, and educational management. In this partnership, AI technologies complement human capabilities rather than replace them enhancing personalized learning, assessment, and administrative efficiency while teachers maintain roles in mentorship, motivation, and ethical decision-making (Holmes *et al*., 2022). According to Luckin *et al.* (2016), the goal of AI collaboration in education is to create intelligence amplification, where AI supports teachers in understanding learners' needs, predicting performance, and designing adaptive learning environments. However, for this partnership to be effective, ethical issues such as data privacy, algorithmic bias, and transparency must be addressed. Teachers also require professional development to understand how to integrate AI responsibly in their classrooms (Chen *et al*., 2020). The partnership between humans and artificial intelligence (AI) in education is essential for enhancing teaching effectiveness, improving learning outcomes, and promoting personalized education. Some key examples that demonstrate how educators and AI systems collaborate to improve educational outcomes are: Intelligent Tutoring Systems, Learning

Management Systems (LMS), automated assessment and feedback, chatbots and virtual assistants, adaptive learning platforms, speech recognition and language learning.

Edmodo AI refers to the integration of artificial intelligence–powered tools and features within the Edmodo learning platform to enhance teaching, personalized learning, assessment, and communication. Although Edmodo originally functioned as a social learning network, the incorporation of AI technologies has improved its ability to provide automated feedback, personalized recommendations, and data-driven instructional support (Kara, 2021). Edmodo is an online learning management system (LMS) designed to facilitate communication, collaboration, and resource sharing between teachers and students. It offers tools for assignments, quizzes, discussions, and feedback (Trust, 2025). The addition of AI features has expanded its functionality beyond traditional LMS capabilities.

Claude is an AI writing assistant that students hardly ever use, but it is no less sophisticated and capable of competing with other well-known AIs. As a result of its accessibility and practicality, Claude AI has been claimed of its significant potential for usage as a writing aid. Indeed, Claude is designed as the general purpose of AI prompt text capable of human-like conversation (Lozić & Štular, 2023). Its capability can assist students in writing activities such as summarizing, paraphrasing, editing, and correcting the written materials into a correct and concise one. This study therefore is designed to ascertain the influence of Artificial intelligence collaboration on job enhancement of business education lecturers in public tertiary institutions in Cross River state, Nigeria.

This study was anchored on the RAT theory propounded by Joan Hughes (1998). The theory sees the function of digital technology as replacement, amplification, or transformation in educational practice. The technology serves merely as a different (digital) means to the same instructional end. Typically, all that changes is the medium through which a well-established purpose is met. Technology works in proxy, stand-in, or seen as surrogate. By implication, technology has replaced human effort. Lecturers should adopt artificial intelligence to enhance their job performance, as well as, meeting the challenges of the time.

Statement of the Problem

A visit to a lecturer's office reveals the enormous responsibility they are called to fulfil each day, and they are expected to perform these responsibilities to the best of their abilities. Some lecturers have developed stress-related illnesses as a result of the pressure they go through, while some have died an untimely death. Yet, others have recorded low teaching output/performance because of so many responsibilities they undertake simultaneously. This worrisome state of affairs cannot lead to productivity in universities. This excess workload seems to contribute to quality issues that are observed in universities today, as most research works are not contemporary due to the rushing mechanism within the school system. These notable problems will adversely affect the university system and the level of productivity in universities in Cross River state.

However, as important as lecturing work is, if it is overloaded, it can also lead to the development of deviant behaviours such as lateness, absenteeism, poor decision-making,

sleeping on duty and burnout. This is the reason the researcher decided to look into ways lecturers can still be productive despite their workload in universities in Cross River state.

Objectives of the Study

This study specifically sought to:

1. Determine the influence of Edmodo AI on job enhancement of business education lecturers in public tertiary institutions in Cross River state, Nigeria.
2. Ascertain the influence of Claude AI on job enhancement of business education lecturers in public tertiary institutions in Cross River state, Nigeria.

Research Questions

1. What is the influence of Edmodo AI on job enhancement of business education lecturers in public tertiary institutions in Cross River state, Nigeria?
2. What is the influence of Claude AI on job enhancement of business education lecturers in public tertiary institutions in Cross River state, Nigeria?

Hypotheses

1. There is no significant influence of Edmodo AI on job enhancement of business education lecturers in public tertiary institutions in Cross River state, Nigeria.
2. There is no significant influence of Claude AI on job enhancement of business education lecturers in public tertiary institutions in Cross River state, Nigeria.

Methodology

Correlational research design was adopted for this study. The target population for the study was 63 business education lecturers in public tertiary institutions in Cross River state. A census sampling technique was used for the study. The instrument for date collection was Artificial Intelligence Collaboration and Job Enhancement Questionnaire (AICJEQ), duly validated by three experts in University of Calabar, Calabar. The internal consistency of the instrument was determined using Cronbach alpha technique which yielded an overall reliability index of .81. Simple linear regression analysis was used to test the hypotheses at 0.05 level of significance.

Results

Research question one: What is the influence of Edmodo AI on job enhancement of business education lecturers in public tertiary institutions in Cross River state, Nigeria?

Table 1: Simple linear regression analysis of Edmodo AI on job enhancement of business education lecturers in public tertiary institutions in Cross River State, N=63

Model	R	R. Square	Adjusted R.Square	Std error of estimate
1	.814	.663	.662	.370

The result of research question one showed that the R which was the correlation coefficient of the independent and dependent variables was .814 which was a value far greater

than .40 indicating a strong positive relationship between Edmodo AI and job enhancement of business education lecturers. More so, the coefficient of determination (R^2) which indicated how much of the total variation in the dependent variable that can be explained by the independent variable was .663. This shows that 66.3% of variation in job enhancement of business education lecturers is accounted for by Edmodo AI which was a good fit for the model.

Research question two: What is the influence of Claude AI on job enhancement of business education lecturers in public tertiary institutions in Cross River state, Nigeria?

Table 2: Simple linear regression of Claude AI on job enhancement of business education lecturers in public tertiary institutions in Cross River State, Nigeria, N= 63

Model	R	R. Square	Adjusted R.Square	Std error of estimate
1	.772	.596	.595	.405

The result of research question two indicated that the R which was the correlation coefficient of the independent and dependent variables was .772 which was a value far greater than .40 indicating a strong positive relationship between notion AI and job enhancement of business education lecturers. More so, the coefficient of determination (R^2) which indicated how much of the total variation in the dependent variable that can be explained by the independent variable was .596. This showed that 59.6% of variation in job enhancement of business education lecturers was accounted for by Claude AI. This result indicated a linear fit between the independent and dependent variables.

Hypothesis one: There is no significant influence of Edmodo AI on job enhancement of business education lecturers in public tertiary institutions in Cross River State.

Table 3: Simple linear regression of Edmodo AI on job enhancement of business education lecturers in public tertiary institutions in Cross River State, N= 63

Model	Sum of square	Df	Mean Square	F-value P-value
Regression	92.752	1	92.752	676.306 .000
Residual	47.178	61	.137	
Total	139.931	62		

A close look at the table also showed an Analysis of Variance result of F-value = 676.306 with a P-value of .000 at 1 and 61 degrees of freedom. The F-value which was greater than 1 yielded efficient model. Also, since the P-value of .000 was less than the tolerable significance value of .05, it therefore indicated that the regression model significantly predicted the outcome variable. Thus, the null hypothesis was rejected. This result implied that Edmodo AI enhances job performance of business education lecturers.

Hypothesis two: There is no significant influence of Claude AI on job enhancement of business education lecturers in public tertiary institutions in Cross River state, Nigeria.

Table 4: Simple linear regression of Claude AI on job enhancement of business education lecturers in public tertiary institutions in Cross River State, Nigeria, N=63

Model	Sum of square	Df	Mean Square	F-value	P-value
Regression	83.450	1	83.450	508.263	.000
Residual	56.480	61	.164		
Total	103.449	62			

A cursory look at the table however, showed an Analysis of Variance result of F-value = 508.263 with a P-value of .000 at 1 and 61 degrees of freedom. The F-value which was greater than 1 yielded efficient model. Also, since the P-value of .000 was less than the tolerable significance value of .05, it therefore indicated that the regression model significantly predicted the outcome variable. Thus, the null hypothesis was rejected. This result implied that Claude AI enhances job performance of business education lecturers.

Discussion of Findings

The finding of hypothesis one revealed that there is a significant influence of Edmodo AI on job enhancement of business education lecturers in public tertiary institutions in Cross River state. The finding is in line with that of Ulfa *et al.* (2022) that most students were willing to use Edmodo and felt that this online platform was proper to post their writing and freely receive feedback privately without being exposed to their friends. The finding also conforms with that of Al-Nawaisah (2024) that there were statistically significant differences at the significance level in the effectiveness of the Edmodo educational platform in developing science achievement among ninth-grade students in favor of the post application.

The finding of the second hypothesis revealed that there is a significant influence of Claude AI on job enhancement of business education lecturers in public tertiary institutions in Cross River state. The finding agrees with that of Ar *et al*. (2024) that most students had a positive perception of the use of Claude AI. It provided a more systematic narrative structure, generating story ideas, corrects grammar and spelling, provided feedback that clarifies paragraph structure in narrative texts. The finding further agrees with that of Saleh and Haiping (2024) Claude AI is applicable and replicable for educators and students.

Conclusion

The study concluded that artificial intelligence collaboration such as Edmodo AI and Claude AI significantly enhance the job performance of business education lecturers.

Recommendations

1. Business education lecturers should incorporate Edmodo AI into their teaching to enhance performance in this digital era.
2. Government should organize training for business education lecturers on the use of Claude AI in their teaching in order to enhance their performance.

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