



Artificial Intelligence Competencies and Innovative Teaching Practices among Business Education Lecturers in Public Tertiary Institutions in Delta State, Nigeria

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Abstract

This study investigated the influence of artificial intelligence competencies on innovative teaching practices among Business Education lecturers in public tertiary institutions in Delta State, Nigeria. Specifically, the study examined the extent to which lecturers possessed artificial intelligence literacy competencies and artificial intelligence content creation competencies and determined their influence on innovative teaching practices. The study adopted a descriptive survey research design. The population comprised 150 Business Education lecturers from Delta State University, Abraka; University of Delta, Agbor; Federal College of Education (Technical), Asaba; College of Education, Warri; and College of Education, Mosogar. A census sampling technique was adopted, while 147 valid questionnaires representing a 98% response rate were used for data analysis. Data were collected using a researcher-developed questionnaire structured on a four-point Likert scale ranging from High Extent to Low Extent. The instrument was validated by experts, and a Cronbach's alpha reliability coefficient of 0.86 was obtained. The mean and standard deviation were used to answer the research questions, while multiple regression analysis was employed to test the hypotheses at the 0.05 level of significance. The findings revealed that Business Education lecturers possessed artificial intelligence literacy competencies (Grand Mean = 3.12) and artificial intelligence content creation competencies (Grand Mean = 2.89) to a great extent and also demonstrated innovative teaching practices to a high extent (Grand Mean = 2.74). However, the regression analysis showed that artificial intelligence literacy competencies and artificial intelligence content creation competencies did not significantly influence innovative teaching practices, either individually or jointly. The study concluded that although Business Education lecturers possess appreciable artificial intelligence competencies, the adoption of innovative teaching practices is influenced by factors beyond AI competencies alone. The study recommends continuous professional development for lecturers, improved digital infrastructure, and stronger institutional support to facilitate the effective integration of artificial intelligence into Business Education teaching.

Keywords: Artificial Intelligence, Artificial Intelligence Competencies, Innovative Teaching Practices, Business Education, Lecturers

Introduction

Artificial intelligence (AI) has become one of the most transformative technological developments of the twenty-first century, reshaping the way people live, work, communicate, and acquire knowledge. In higher education, AI is increasingly redefining teaching and learning by providing intelligent systems that support lesson preparation, content development, assessment, personalized learning, academic research, and administrative decision-making. The emergence of generative AI tools such as ChatGPT, Microsoft Copilot, Google Gemini, Claude, and similar applications has particularly changed the educational landscape by enabling educators to design instructional

materials, generate assessments, provide timely feedback, and facilitate interactive learning experiences. Consequently, universities around the world are gradually shifting from simply introducing digital technologies into classrooms to equipping lecturers with the competencies required to integrate AI effectively and responsibly into teaching. Business Education, as a discipline that prepares individuals with entrepreneurial, vocational, managerial, technological, and employability skills, cannot remain isolated from these developments. The discipline has traditionally evolved in response to changes in the business environment, workplace technologies, and labour market expectations. As businesses increasingly adopt AI-driven systems for accounting, marketing, customer relationship management, human resource management, and decision-making, Business Education Programmes are expected to prepare graduates with corresponding digital competencies. Achieving this objective depends largely on the ability of lecturers to understand AI technologies and integrate them into their instructional practices in ways that promote active learning, creativity, collaboration, critical thinking, and problem-solving. The increasing relevance of AI competencies has attracted growing scholarly attention in Nigeria. For example, Eleje et al. (2025) observed that AI adoption within Nigerian higher education is expanding steadily despite persistent challenges relating to infrastructure, institutional support, digital competence, and ethical concerns. Their study emphasized that successful integration of AI into higher education requires not only technological availability but also the development of lecturers' competencies to ensure meaningful instructional application. This suggests that the effectiveness of AI in education depends less on the technology itself than on the capacity of educators to utilize it appropriately. Similarly, Murtala et al. (2025) argued that AI is redefining interactive teaching and learning across Nigerian universities by enabling lecturers to create more engaging, flexible, and student-centred instructional environments. Their findings demonstrated that AI applications enhance classroom interaction, facilitate individualized learning experiences, and improve instructional efficiency when lecturers possess adequate knowledge and confidence in using these technologies.

The study further noted that the future of higher education will increasingly depend on lecturers' ability to integrate AI into routine teaching practices while maintaining sound pedagogical principles. Within Business Education, the relevance of AI appears even more pronounced because graduates are expected to function effectively in digitally driven business environments. Afo et al. (2024) found that Business Education lecturers generally perceived computer-based artificial intelligence as an effective tool for instructional delivery. According to the authors, AI enhances lesson preparation, instructional presentation, classroom interaction, and assessment by providing lecturers with innovative methods for organizing and delivering learning activities. Their findings indicate that AI has considerable potential to improve the quality of Business Education instruction when lecturers possess the competencies required for its effective utilization. Recent evidence from Delta State further demonstrates increasing awareness of AI among Business Education lecturers. Aganbi (2025) reported that lecturers generally expressed positive perceptions towards adopting artificial intelligence for teaching and learning Business Education courses in tertiary institutions across Delta State. The broader integration of emerging technologies into Business Education has equally attracted scholarly attention. Onyemah et al. (2026) maintained that educational disruption resulting from rapid technological advancement requires Business Education programmes to embrace emerging digital technologies in order to remain relevant. According to the authors, integrating technologies such as artificial intelligence, virtual learning environments, cloud computing, data analytics, and digital collaboration platforms can significantly improve instructional quality and graduate employability. They stressed that lecturers occupy a strategic position in this transformation because they determine the extent to which these technologies become meaningful components of classroom instruction.

Although awareness and acceptance of AI appear to be increasing, evidence suggests that actual adoption remains inconsistent across Nigerian universities. Applying the Capability, Opportunity and Motivation Behaviour (COM-B) framework, Adekemi et al. (2026) found that lecturers' adoption of AI is influenced by their technological capabilities, institutional opportunities, and motivational factors. Their study demonstrated that lecturers are more likely to adopt AI when they possess adequate competencies, receive institutional encouragement, and perceive AI as beneficial to their professional responsibilities. These findings underscore the importance of developing lecturers' competencies rather than merely introducing AI technologies into educational institutions. Comparable findings were reported by Umar et al. (2025), who investigated lecturers' knowledge and utilization of artificial intelligence for teaching and research in tertiary institutions in Adamawa State. Their study revealed moderate levels of AI knowledge and utilization among lecturers, with notable differences attributable to access to training opportunities and institutional

technological infrastructure. The full instructional benefits of artificial intelligence. Similarly, Onwuagboke et al. (2024) observed that lecturers demonstrated growing awareness of AI tools for teaching and research but varied considerably in their ability to integrate these tools into instructional practice. According to the study, awareness alone does not guarantee effective utilization because successful AI integration depends on practical competencies, institutional support, and sustained professional learning. Okolie and Egbon (2025) reported that undergraduate students at Delta State University increasingly utilize AI technologies to support learning activities, improve access to academic information, and enhance learning outcomes. The study indicates that students are becoming more receptive to AI-supported learning environments, thereby increasing expectations that lecturers will also possess the competencies required to facilitate AI-enhanced instruction. Despite the increasing body of literature on artificial intelligence in Nigerian higher education, existing studies have largely focused on lecturers' awareness, perception, acceptance, knowledge, utilization, or adoption of AI technologies. Comparatively limited attention has been devoted to examining how specific artificial intelligence competencies influence innovative teaching practices among Business Education lecturers.

More importantly, empirical evidence specifically involving Business Education lecturers in public tertiary institutions in Delta State remains scarce, particularly regarding competencies such as AI literacy and AI-assisted instructional content development. Innovative teaching practices require lecturers to move beyond conventional lecture methods by adopting learner-centred, technology-supported, collaborative, and problem-based instructional approaches that improve students' engagement and learning outcomes. According to Oghenekome and Ito (2025), the successful implementation of the Business Education CCMAS curriculum requires lecturers to leverage innovative learning approaches that enhance students' acquisition of practical knowledge, digital competencies, entrepreneurial skills, collaboration, creativity, and critical thinking. As AI becomes increasingly embedded within higher education, understanding whether lecturers possess the competencies necessary to drive such instructional innovation has become an important educational concern. Without empirical evidence on this relationship, policymakers, curriculum developers, institutional administrators, and professional bodies may find it difficult to design effective professional development programmes that prepare Business Education lecturers for contemporary teaching demands. Against this background, this study investigates the influence of artificial intelligence competencies on innovative teaching practices among Business Education lecturers in public tertiary institutions in Delta State, Nigeria. Specifically, the study seeks to determine whether competencies in artificial intelligence literacy and AI-assisted instructional content creation contribute significantly to lecturers' adoption of innovative teaching practices capable of improving the quality and relevance of Business Education in an increasingly digital world.

The rapid advancement of artificial intelligence has transformed teaching and learning across higher education by providing innovative tools that enhance lesson planning, instructional delivery, assessment, student engagement, and research productivity. Universities worldwide increasingly encourage lecturers to integrate artificial intelligence into their teaching practices to prepare graduates for the demands of a technology-driven workplace. In Business Education, this expectation is particularly important, as the discipline is designed to equip learners with contemporary business, entrepreneurial, digital, and employability competencies that align with evolving labour market needs. Although studies conducted in Nigeria indicate that lecturers generally hold positive perceptions of artificial intelligence and demonstrate increasing awareness and use of AI technologies, evidence also suggests that many lecturers continue to face challenges related to inadequate competencies, insufficient professional training, limited institutional support, and inconsistent integration of AI into instructional practice. Consequently, the extent to which Business Education lecturers possess the competencies required to employ AI for innovative teaching remains uncertain. Existing empirical studies have predominantly examined lecturers' perceptions, awareness, knowledge, utilisation, acceptance, and adoption of artificial intelligence. While these studies have contributed significantly to understanding AI integration in Nigerian higher education, they provide limited evidence on how specific artificial intelligence competencies influence innovative teaching practices among Business Education lecturers, particularly within public tertiary institutions in Delta State. This represents an important gap, because innovative teaching depends not merely on lecturers' awareness or willingness to use AI but on their ability to apply AI competencies effectively in designing engaging, learner-centred, technology-enhanced instructional experiences.

The absence of empirical evidence on the relationship between artificial intelligence competencies and innovative teaching practices creates uncertainty for institutional administrators, curriculum planners, policymakers, and

professional development providers seeking to strengthen Business Education in response to technological advancement. It is against this backdrop that this study investigates the influence of artificial intelligence competencies on innovative teaching practices among Business Education lecturers in public tertiary institutions in Delta State, Nigeria.

The study was guided by the following research questions:

1. To what extent do Business Education lecturers possess artificial intelligence literacy competencies in public tertiary institutions in Delta State?
2. To what extent do Business Education lecturers possess artificial intelligence content creation competencies in public tertiary institutions in Delta State?
3. What is the influence of artificial intelligence competencies on innovative teaching practices among Business Education lecturers in public tertiary institutions in Delta State?

The following null hypotheses were tested at the 0.05 level of significance:

1. Artificial intelligence literacy competencies have no significant influence on innovative teaching practices among Business Education lecturers in public tertiary institutions in Delta State.
2. Artificial intelligence content creation competencies have no significant influence on innovative teaching practices among Business Education lecturers in public tertiary institutions in Delta State.
3. Artificial intelligence competencies have no significant joint influence on innovative teaching practices among Business Education lecturers in public tertiary institutions in Delta State.

Methodology

This study adopted a descriptive survey research design to investigate the influence of artificial intelligence competencies on innovative teaching practices among Business Education lecturers in public tertiary institutions in Delta State, Nigeria. The descriptive survey design was considered appropriate because it enabled the researchers to collect data from respondents on the variables of interest without manipulating any of them. The study was conducted in five public tertiary institutions offering Business Education programmes in Delta State, namely Delta State University, Abraka (23 lecturers), University of Delta, Agbor (22 lecturers), College of Education, Warri (18 lecturers), Federal College of Education (Technical), Asaba (73 lecturers), and College of Education, Mosogar (14 lecturers), giving a total population of 150 Business Education lecturers. Owing to the relatively small and manageable population, the entire population was used for the study through a census sampling technique; therefore, no sampling procedure was adopted. Data were collected using a researcher-developed instrument titled *Artificial Intelligence Competencies and Innovative Teaching Practices Questionnaire* (AICITPQ). The instrument comprised two sections: Section A: demographic information of the respondents, while Section B consisted of items measuring the study variables. The questionnaire was structured on a four-point Likert rating scale of High Extent (HE) = 4 points, Moderate Extent (ME) = 3 points, Low Extent (LE) = 2 points, and Very Low Extent (VLE) = 1 point. A criterion mean of 2.50 was adopted as the benchmark for decision-making, such that mean scores of 2.50 and above were regarded as indicating a great extent, while mean scores below 2.50 indicated a low extent. To ensure the validity of the instrument, it was subjected to face and content validation by three experts, comprising two specialists in Business Education and one specialist in Measurement and Evaluation, all from Delta State University, Abraka. The reliability of the instrument was established through a pilot study involving Business Education lecturers from a public tertiary institution outside the study area but with similar characteristics to the study population. Data from the pilot study were analysed using Cronbach's alpha coefficient, yielding an overall reliability index of 0.86, indicating satisfactory internal consistency. Out of the 150 questionnaires administered to Business Education lecturers in the selected public tertiary institutions in Delta State, 147 were successfully retrieved and found valid for analysis. Data collected were analysed using the mean and standard deviation to answer the research questions, while multiple regression analysis was employed to test the null hypotheses at the 0.05 level of significance.

Results

Table 1: Response Rate of the Questionnaire

Response Rate	Frequency	Percentage (%)
Questionnaire administered	150	100.0
Questionnaire retrieved and valid	147	98.0
Questionnaire not retrieved/invalid	3	2.0
Total	150	100.0

Table 1 shows that out of the 150 questionnaires administered to Business Education lecturers in the selected public tertiary institutions in Delta State, 147 were successfully retrieved and found valid for analysis, representing a response rate of 98.0%, while only 3 questionnaires (2.0%) were either not returned or were invalid due to incomplete responses.

Table 2: Artificial Intelligence Literacy Competencies of Business Education Lecturers (N = 147)

S/N	Questionnaire Items	Mean	SD	Remark
1	I possess adequate knowledge of artificial intelligence technologies applicable to Business Education teaching.	3.30	0.59	HE
2	I can effectively use artificial intelligence tools to prepare lesson notes and instructional materials.	3.14	0.66	HE
3	I can evaluate and verify AI-generated information before using it for classroom instruction.	3.34	0.48	HE
4	I understand the ethical principles guiding the use of artificial intelligence in teaching and learning.	3.04	0.79	HE
5	I can confidently integrate artificial intelligence applications into my classroom instructional activities.	2.80	0.92	HE
	Grand Mean	3.12	0.40	HE

Table 2 reveals that Business Education lecturers in public tertiary institutions in Delta State possessed artificial intelligence literacy competencies to a great extent, with a grand mean of 3.12 and a standard deviation of 0.40. Since the grand mean exceeded the criterion mean of 2.50, all the questionnaire items were rated High Extent (HE). This implies that the lecturers demonstrated adequate knowledge of artificial intelligence technologies, understood their instructional applications, were able to evaluate AI-generated information, appreciated the ethical principles governing AI use, and were confident in integrating AI tools into classroom instruction.

Table 3: Artificial Intelligence Content Creation Competencies of Business Education Lecturers (N = 147)

S/N	Questionnaire Items	Mean	SD	Remark
1	I use artificial intelligence tools to develop lecture notes and instructional content for my courses.	3.16	0.87	HE
2	I can generate quizzes, assignments, and examination questions using artificial intelligence applications.	2.98	0.73	HE
3	I use artificial intelligence to prepare presentations and multimedia instructional materials for teaching.	2.76	0.49	HE
4	I edit and improve AI-generated instructional materials before using them in the classroom.	3.01	0.57	HE
5	I use artificial intelligence to create learning resources that promote students' active engagement during instruction.	2.55	0.92	HE
	Grand Mean	2.89	0.30	HE

Table 3 indicates that Business Education lecturers possessed artificial intelligence content creation competencies to a great extent, with a grand mean of 2.89 and a standard deviation of 0.30. Since the grand mean was above the criterion mean of 2.50, all the items were rated High Extent (HE). This suggests that the lecturers effectively utilized

AI applications to develop instructional content, prepare assessments, create multimedia learning resources, and refine AI-generated instructional materials before classroom delivery.

Table 4: Innovative Teaching Practices among Business Education Lecturers (N = 147)

S/N	Questionnaire Items	Mean	SD	Remark
1	I regularly integrate emerging digital technologies into my classroom instruction.	2.85	0.89	HE
2	I adopt learner-centred instructional strategies that encourage active student participation.	2.76	0.78	HE
3	I use innovative instructional approaches to enhance students' critical thinking and problem-solving skills.	2.75	0.70	HE
4	I utilize technology-based assessment methods to improve students' learning outcomes.	2.54	0.88	HE
5	I continuously modify my teaching strategies to reflect current technological developments in Business Education.	2.82	0.82	HE
	Grand Mean	2.74	0.44	HE

Table 4 shows that Business Education lecturers adopted innovative teaching practices to a great extent, with a grand mean of 2.74 and a standard deviation of 0.44. Since the grand mean exceeded the criterion mean of 2.50, all the questionnaire items were rated High Extent (HE). This implies that the lecturers regularly integrated digital technologies into classroom instruction, adopted learner-centred teaching strategies, employed innovative instructional methods, utilized technology-based assessment approaches, and continuously updated their teaching practices to align with technological advancements in Business Education.

Test of Hypotheses

Table 5: Model Summary of the Multiple Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.155	.024	.011	.438

Table 5 shows the model summary of the multiple regression analysis. The coefficient of determination (R^2) is 0.024, indicating that Artificial Intelligence Literacy Competencies and Artificial Intelligence Content Creation Competencies jointly explained 2.4% of the variation in innovative teaching practices among Business Education lecturers. The remaining 97.6% of the variation is attributable to other factors not included in the model.

Table 6: ANOVA for the Multiple Regression Analysis

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	0.693	2	0.347	1.807	.168
Residual	27.621	144	0.192		
Total	28.314	146			

Table 6 presents the analysis of variance for the regression model. The model produced an F-value of 1.807 with a corresponding p-value of .168, which is greater than the 0.05 level of significance. This indicates that the combined influence of Artificial Intelligence Literacy Competencies and Artificial Intelligence Content Creation Competencies on innovative teaching practices was not statistically significant.

Table 7: Regression Coefficients

Predictor	B	Std. Error	Beta	t	Sig.	Remark
Constant	2.129	0.497	–	4.279	.000	Significant
Artificial Intelligence Literacy Competencies	-.0012	0.092	-.001	-.013	.897	Not Significant
Artificial Intelligence Content Creation Competencies	0.225	0.122	0.157	1.839	.068	Not Significant

The regression coefficients indicate that Artificial Intelligence Literacy Competencies had a regression coefficient of $B = -0.012$ ($t = -0.130$, $p = .897$), showing that the variable did not significantly predict innovative teaching practices.

Similarly, Artificial Intelligence Content Creation Competencies recorded a regression coefficient of $B = 0.225$ ($t = 1.839$, $p = .068$), which was also not statistically significant at the 0.05 level.

Discussion

The findings from Research Question One revealed that Business Education lecturers possessed artificial intelligence literacy competencies to a great extent, as indicated by a grand mean of 3.12, which exceeded the criterion mean of 2.50. This finding suggests that the lecturers possess adequate knowledge of artificial intelligence technologies and understand how AI can be integrated into instructional activities. Their ability to evaluate AI-generated information, appreciate the ethical implications of AI usage, and confidently incorporate AI applications into classroom instruction demonstrates that AI literacy is gradually becoming an essential component of pedagogical competence among Business Education lecturers. This finding reflects growing awareness of the importance of artificial intelligence in higher education and suggests that lecturers are increasingly preparing to meet the changing demands of technology-enhanced teaching. This finding corroborates the study of Onwuagboke et al. (2024), who reported that lecturers in Nigerian universities demonstrated a high level of awareness of artificial intelligence tools for teaching and research. The finding also agrees with Umar et al. (2025), who found that lecturers possessed satisfactory knowledge of artificial intelligence technologies, although continuous professional development remained necessary to improve effective utilization. Furthermore, the findings support Aganbi (2025), who reported that Business Education lecturers in Delta State had favourable perceptions of adopting artificial intelligence in teaching and learning. The consistency of these findings suggests that lecturers are becoming increasingly familiar with AI technologies and recognize their educational value. The findings in Research Question Two showed that Business Education lecturers possessed artificial intelligence content creation competencies to a great extent, with a grand mean of 2.89. This indicates that lecturers are capable of utilizing AI applications to develop lecture notes, prepare instructional materials, generate assessment tasks, produce multimedia learning resources, and improve AI-generated content before classroom use. The findings imply that lecturers are not merely aware of AI technologies but are also developing practical competencies that support instructional planning and classroom delivery. Such competencies are particularly important in Business Education, where instructional content must continually reflect emerging workplace technologies and digital business practices. This finding supports Afo et al. (2024), who found that Business Education lecturers perceived computer artificial intelligence as highly effective in enhancing instructional delivery through improved lesson preparation, classroom interaction, and assessment. The finding also aligns with Eleje et al. (2025), who observed that the adoption of artificial intelligence in Nigerian higher education has significantly expanded opportunities for instructional content development, research productivity, and personalized learning experiences. Likewise, the finding corroborates Onyemah et al. (2026), who emphasized that integrating emerging technologies into Business Education is essential for improving instructional quality and preparing graduates with relevant digital competencies required in today's dynamic labour market. Research question three revealed that Business Education lecturers adopted innovative teaching practices to a great extent, with a grand mean of 2.74. This finding indicates that lecturers regularly integrate digital technologies into classroom instruction, employ learner-centred teaching strategies, utilize innovative instructional approaches, adopt technology-based assessment methods, and continuously adjust their teaching methods to align with technological developments. The results show that Business Education lecturers are gradually moving away from traditional teacher-centred instructional approaches toward more interactive, technology-supported pedagogies that encourage active student participation and collaborative learning. This finding agrees with Murtala et al. (2025), who reported that artificial intelligence has substantially transformed interactive teaching and learning within Nigerian universities by promoting student engagement, personalised learning, and instructional efficiency. This finding also supports Okolie and Egbon (2025), who observed that artificial intelligence has become an important educational tool that can improve teaching and learning processes in higher education institutions. Their study suggested that increasing students' utilisation of AI technologies also requires lecturers to adopt innovative instructional strategies that maximise the educational benefits of AI-supported learning environments.

However, the hypothesis testing findings presented a different perspective. The study found that artificial intelligence literacy competencies did not significantly influence innovative teaching practices among Business Education lecturers. Similarly, artificial intelligence content creation competencies did not significantly influence innovative teaching practices, while the combined influence of both artificial intelligence competency dimensions on innovative teaching practices was also not statistically significant. Although lecturers generally had high levels of AI

competencies and reported high levels of innovative teaching practices, these competencies did not significantly predict variation in their instructional practices. This finding suggests that possessing AI competencies alone may not necessarily translate into innovative classroom practices. Other institutional and contextual factors, such as availability of technological infrastructure, institutional policies, management support, internet accessibility, workload, funding, opportunities for professional development, and organizational culture, may exert greater influence on lecturers' ability to implement innovative teaching strategies. The non-significant regression results may further be explained by the relatively homogeneous responses obtained from the lecturers. Since the majority of respondents reported high levels of both AI competencies and innovative teaching practices, there was limited variability within the data to establish statistically significant predictive relationships. This observation is consistent with the argument advanced by Adekemi et al. (2026) using the Capability, Opportunity and Motivation–Behaviour (COM-B) framework. The authors maintained that successful adoption of artificial intelligence depends not only on lecturers' capabilities but also on the opportunities and motivational conditions provided by their institutions. Consequently, lecturers may possess adequate AI competencies but still encounter institutional barriers that limit the practical application of these competencies during instructional delivery. Overall, the findings demonstrate that Business Education lecturers in public tertiary institutions in Delta State possess appreciable artificial intelligence competencies and have embraced innovative teaching practices to a considerable extent. However, the absence of statistically significant predictive relationships indicates that improving innovative teaching practices requires a broader institutional approach that extends beyond competence development alone. Universities and colleges should therefore complement AI capacity-building programmes with adequate technological infrastructure, supportive institutional policies, continuous professional development, and enabling learning environments that encourage the effective integration of artificial intelligence into Business Education instruction. The findings revealed that the lecturers possessed artificial intelligence literacy and artificial intelligence content creation competencies to a high extent and also demonstrated innovative teaching practices to a great extent. However, the regression analysis showed that neither artificial intelligence literacy competencies nor artificial intelligence content creation competencies had a statistically significant individual or joint influence on innovative teaching practices. The study therefore concludes that while Business Education lecturers have embraced artificial intelligence and innovative instructional approaches, the adoption of innovative teaching practices may depend on additional institutional and contextual factors beyond lecturers' AI competencies. Consequently, enhancing innovative teaching in Business Education requires a holistic approach that combines competency development with adequate institutional support, technological infrastructure, and continuous professional development.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. Management of public tertiary institutions should provide regular professional development programmes, workshops, and hands-on training to enhance Business Education lecturers' competencies in the effective and ethical use of artificial intelligence for teaching and learning.
2. Institutional administrators and government agencies should improve the provision of digital infrastructure, including reliable internet connectivity, modern ICT facilities, and access to appropriate artificial intelligence tools, to support innovative teaching practices among Business Education lecturers.
3. Business Education departments should encourage lecturers to integrate artificial intelligence applications into lesson planning, instructional delivery, assessment, and instructional material development while promoting continuous innovation in teaching through institutional support and collaborative learning initiatives.

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