

INFLUENCE OF CHATGPT ON ACADEMIC PERFORMANCE OF UNDERGRADUATES OF LIBRARY AND INFORMATION SCIENCE IN UNIVERSITIES IN EDO AND DELTA STATES

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Abstract

This study investigated the influence of ChatGPT on the academic performance of undergraduates of Library and Information Science in universities in Edo and Delta States. Four research questions and one hypothesis guided the study. The population of the study is 1,421 undergraduates and a sample of 312 selected through proportionate stratified sampling. Data were collected using a structured questionnaire and analysed with descriptive statistics and Pearson Product Moment Correlation (PPMC) at 0.05 level of significance. The results from the study indicates high usage of ChatGPT (M = 3.27), particularly for clarifying difficult concepts (M = 3.52), completing assignments (M = 3.41), and research writing (M = 3.37). Students agreed on its benefits (M= 3.48), including improved understanding of concepts (M = 3.62), enhanced performance (M = 3.55), and increased study efficiency (M = 3.59). However, the study recommended that National University Commission (NUC), Universities, Policy makers and regulatory bodies in higher education includes AI-based learning tools as strategies for the effective and ethical use of ChatGPT, ensuring that it serves as a complementary tool rather than a substitute for core academic activities. Also, Library and Information Science Departments in Universities in Nigeria should organise regular workshops and training sessions on AI literacy to equip students with the skills to effectively apply ChatGPT in academic research and information management in order to balance it with traditional learning resources to enhance originality, critical thinking, and independent study habits.

Keywords: ChatGPT, Artificial Intelligence (AI), Academic Performance, Library and Information Science (LIS), Undergraduates, Critical Thinking, Nigeria

Introduction

The rapid advancement of artificial intelligence (AI) has significantly transformed the educational sector globally. One of the most prominent AI-driven technologies is ChatGPT, developed by OpenAI in 2022, which employs Natural Language Processing (NLP) to simulate human-like conversations and provide coherent responses to queries (Adelegan, 2024). With its increasing adoption in higher education, ChatGPT has emerged as both a learning companion and a research support tool for students across various disciplines. The integration of ChatGPT into students' learning environments has raised debates regarding its influence on academic performance. Proponents argue that ChatGPT simplifies complex concepts, enhances comprehension, and supports research writing (Ngonso et al., 2025). The nature of ChatGPT's influence makes it imperative to assess its impact, particularly undergraduates in Nigerian universities, where digital literacy and access to modern technologies are evolving. Empirical evidence suggests that AI tools have been widely adopted in Nigerian tertiary institutions, with most students acknowledging their usefulness in improving learning and research outcomes (Ngonso et al., 2025; Amuche, Uzokife & Anunike, 2025). Specifically, Abdulmumin and Abdulrahman (2025) stated that undergraduates across Nigerian universities held favourable perceptions of ChatGPT, using it primarily for simplifying learning, gaining conceptual clarity, and completing assignments. Similarly,

Yahuza, Kabir, and Abdullahi, (2025) established that students recognized AI's potential in enhancing research writing, regardless of academic level.

Library and Information Science (LIS) is a discipline concerned with the collection, organisation, preservation, retrieval, and dissemination of information resources in various formats. In universities, LIS education aims to prepare undergraduates as information professionals who can manage knowledge resources, support academic research, and promote information literacy in society. The curriculum typically combines theory and practice, covering areas such as cataloguing and classification, information retrieval, knowledge management, digital libraries, and emerging technologies. In the 21st century, LIS education has been heavily influenced by technological advances. The integration of digital tools, electronic databases, and AI applications has shifted the field from traditional library practices to technology-driven information management. This makes LIS students uniquely positioned to explore and adopt innovative technologies like ChatGPT in their academic work. For undergraduates in Library and Information Science (LIS), whose academic pursuits revolve around knowledge organization, information retrieval, and research methodologies, ChatGPT offers opportunities for improved access to information, academic writing support, and enhanced learning outcomes. According to Tunmibi and Okuonghae (2025), librarians demonstrate strong awareness of AI technologies for information discovery and access, suggesting that LIS education in these states is increasingly shaped by digital innovations. For LIS undergraduates, effective use of AI tools such as ChatGPT is not only an academic advantage but also a professional necessity. Exposure to these tools

equips them with digital competencies required in modern libraries, archives, and information centres.

However, the challenge lies in ensuring that these students use AI responsibly. Studies like Amuche, Uzokife & Anunike (2025) and Offor, Nwaru, and Offiah (2024) warn that without proper training, students may misuse AI tools for shortcuts, academic dishonesty, or plagiarism—practices that contradict the ethical principles of LIS. Thus, LIS education in Nigeria, and particularly in Edo and Delta States, must strike a balance: leveraging ChatGPT as a tool for enhanced learning and research, while instilling values of integrity, critical thinking, and ethical information use. This balance is crucial, as today's LIS undergraduates are tomorrow's custodians of knowledge and digital information managers in society. This study, therefore, seeks to provide empirical evidence on the influence of ChatGPT on LIS students' academic engagement, learning outcomes, and performance, while also addressing concerns of misuse and ethical implications.

Statement of the Problem

Artificial intelligence (AI) tools such as ChatGPT are increasingly shaping higher education by providing instant responses, simplifying concepts, supporting research writing, improved comprehension, communication, and academic performance among Nigerian students. For undergraduates in Library and Information Science (LIS), these features are particularly relevant, given their focus on information management and academic research. Existing studies show that students recognise ChatGPT's potential to

enhance learning, academic performance, and research efficiency. The influence of ChatGPT on students' academic outcomes remains uncertain, as some research reports positive impacts while others highlight risk of misuse.

However, it is uncertain if Undergraduates' of Library and Information Science use ChatGPT and how it affects their academic performance as the students are future information professionals and the reliance or misuse of ChatGPT has implications for academic integrity and knowledge management in Nigeria. Therefore, addressing this gap is vital, as this study seeks to provide an empirical evidence on The Influence of ChatGPT on Academic Performance of Undergraduates of Library and Information Science in University in Edo and Delta State, Nigeria. To address this problem, the present study will be guided by the following research questions.

Research Questions

- i. To what extent do Undergraduates of Library and Information Science Use ChatGPT for academic purposes in university in Edo and Delta?
- ii. What are the perceived benefits of ChatGPT on academic performance of Undergraduates of Library and Information Science?
- iii. What are the challenges encountered in the use of ChatGPT for learning and research by Undergraduates of Library and Information Science?
- iv. What is the relationship between ChatGPT usage and critical thinking, independence study habits, the research skills of Undergraduates of Library and Information Science?

Research Hypothesis:

To guide the study, the following null hypothesis was tested:

HO₁: There is no significant relationship between ChatGPT usage and critical thinking, independent study habits, and research skills of Undergraduates of Library and Information Science in Universities in Edo and Delta States.

Review of Related Literature

Extent of ChatGPT Usage

Globally, AI is seen as a transformative force, enabling student-centred learning and improving access to academic resources (Nnanna-Ohuonu, 2025). ChatGPT, developed by OpenAI in 2022, is a conversational AI that generates human-like responses to text prompts using Natural Language Processing (NLP). In education, it is increasingly used as a study companion, research aid, and problem-solving tool. Students rely on it to simplify complex concepts, generate explanations, provide writing assistance, and support independent learning (Adelegan, 2024). Empirical evidence shows that undergraduates generally perceive ChatGPT positively. Adelegan (2024) showed experimentally that ChatGPT enhanced knowledge acquisition across subjects. Abdulmumin and Abdulrahman (2025) reported that students valued it for simplifying learning and completing assignments, while Ngonso et al. (2025) found that ChatGPT enhanced understanding and improved students' speaking and communication skills. Adelegan (2024) also demonstrated that ChatGPT improved knowledge acquisition across multiple domains, making it a useful tool for diverse fields of study. Access and

perception also vary, as Abdulmumin and Abdulrahman (2025) found that gender and institutional ownership influenced ChatGPT usage among undergraduates. However, challenges remain. Offor, Nwaru, and Offiah (2024) linked its misuse to plagiarism, academic dishonesty, and over-dependence, while Polo, Emmanuel and Obande (2024) raised concerns about the reliability of AI-generated knowledge. These risks suggest that without proper guidance, ChatGPT could undermine critical thinking and academic integrity. Yet, as Tunmibi and Okuonghae (2025) observed among librarians in Edo and Delta States, awareness of AI tools does not always guarantee effective use. This underscores the need for training, ethical guidelines, and institutional policies to ensure ChatGPT supports rather than hinders academic performance.

Perceived Benefits of ChatGPT on Academic Performance

Evidence from recent studies indicates that ChatGPT exerts a positive influence on students' learning processes and academic performance. Adelegan (2024) experimentally demonstrated that ChatGPT significantly improved students' knowledge acquisition in English, Mathematics, and Science, showing its cross-disciplinary value as a learning tool. Nnanna-Ohuonu (2025) found a strong positive correlation between AI tool usage and students' academic performance in marketing education, with frequent users outperforming occasional users in terms of comprehension and project completion. Similarly, Oyeyemi, Okoye, Okenwa-Fadele and Abiakwu (2024) reported that AI tools enhanced students' problem-solving abilities, critical thinking skills, and overall learning capabilities in public universities in Anambra State. Beyond knowledge acquisition, students perceive ChatGPT as a valuable learning partner that simplifies

difficult concepts, saves time, and provides immediate feedback on assignments (Ngonso et al., 2025). These benefits are particularly relevant in contexts where students face resource shortages, large class sizes, or limited access to lecturers. Abdulmumin and Abdulrahman (2025) further showed that undergraduates held favourable attitudes towards ChatGPT, using it to gain conceptual clarity and improve their academic tasks. Collectively, these findings suggest that ChatGPT contributes not only to improved comprehension and academic outcomes but also to greater confidence in tackling academic challenges. However, despite these reported benefits, there is still limited empirical evidence on its impact in LIS education, especially within Edo and Delta States. Given that LIS students are trained to become future information managers, evaluating how they perceive and benefit from ChatGPT is crucial in determining whether it truly enhances their academic performance or simply offers short-term academic convenience.

Challenges Associated with the Use of ChatGPT

Despite its many advantages, several challenges have been identified in the literature regarding students' use of ChatGPT. Amuche, Uzokife and Anunike (2025) noted that misinformation and lack of structured training were major barriers that limited students' ability to use AI tools effectively. Without proper guidance, students often misinterpret or misuse the information generated by ChatGPT, which can negatively impact their academic work. The issue of misuse is also well-documented. Offor, Nwaru, and Offiah (2024) revealed that undergraduates in Anambra State frequently abused AI tools, leading to plagiarism, examination malpractice, and an

unhealthy over-dependence on ChatGPT for assignments. Such practices diminished independent study habits and compromised academic integrity. On a broader level, Polo, Emmanuel and Obande (2024) raised epistemological concerns about the credibility and reliability of AI-generated knowledge, warning that over-reliance on AI might weaken students' ability to critically evaluate information. These challenges highlight the tension between the potential benefits of ChatGPT and the risks of misuse. For LIS undergraduates in Edo and Delta States, the concern is particularly serious because they are expected to uphold high standards of information ethics and integrity in their professional training. Therefore, there is a clear need for structured guidance, ethical awareness, and digital literacy training to mitigate misuse and ensure ChatGPT is used responsibly.

Influence of ChatGPT on Critical Thinking, Independent Study, and Research Skills

Research further indicates that ChatGPT affects not only academic performance but also higher-order skills such as critical thinking, independent study, and research ability. Perculiar, Oduselu-Hassan and Jonathan (2025) found that AI tools enhanced students' cognitive development, learner interaction, and independent learning in Delta State secondary schools, showing that AI has the potential to foster deeper intellectual engagement when used appropriately. Nnanna-Ohuonu (2025) also noted that AI-driven learning environments encouraged personalised and interactive learning, which improved students' ability to complete projects, assignments, and research tasks effectively. However, there are concerns that such benefits may be offset by over-dependence on AI.

Offor, Nwaru, and Offiah (2024) cautioned that students who relied heavily on AI tools developed weaker independent study habits and were less inclined to engage in deep critical analysis of academic materials. This raises questions about whether ChatGPT is fostering genuine intellectual growth or simply making students more reliant on machine-generated responses. For LIS undergraduates, these issues are particularly significant because their discipline requires strong critical thinking skills, research competence, and independent information retrieval abilities. While ChatGPT can serve as a powerful research aid, its influence on the development of these essential skills among LIS students in Edo and Delta States has not been fully explored. Investigating this relationship will provide insight into whether ChatGPT strengthens or undermines the professional and academic competencies that LIS education seeks to develop.

Methodology

The study adopted a descriptive survey design with a total population of 1,421 students drawn from six universities (federal and state), comprising 1,000 students in Delta State and 421 students in Edo State. Using Taro Yamane's formula at 5% margin of error, a sample size of 312 students was determined, proportionately allocated as 220 students from Delta State and 92 students from Edo State. Data were collected through a structured questionnaire and tested for reliability using Cronbach's Alpha. The instrument was administered both physically and online, with ethical considerations such as confidentiality and voluntary participation strictly observed. Data collected were analysed using descriptive statistics (mean and standard deviation) to answer the

research questions, while inferential statistics, including Pearson correlation, t-test, and regression analysis at the 0.05 level of significance, were employed to test the hypotheses.

Results and Discussion

The socioeconomic characteristics of respondents.

Table 1: Socioeconomic Characteristics of Respondents

Variable	Category	Frequency	Percentage (%)
Gender	Male	136	45.6
	Female	162	54.4
Age	16–20 years	84	28.2
	21–25 years	149	50.0
	26 years and above	65	21.8
Level of Study	100 level	47	15.8
	200 level	69	23.2
	300 level	102	34.2
	400 level	80	26.8
State of University	Delta State (4 universities)	206	69.1
	Edo State (2 universities)	92	30.9

The results in Table 1, the majority of respondents were females (54.4%), and most were between 21–25 years (50.0%). About one-third were in 300 level (34.2%), followed by 400 level (26.8%). The larger share of respondents (69.1%) were from Delta State universities, reflecting the higher LIS enrolment in the state.

The findings from the study shows that female undergraduates (54.4%) slightly outnumbered their male counterparts (45.6%), which reflects the gender composition often reported in LIS programmes in Nigeria. Oyeyemi, Okoye, Okenwa-Fadele and Abiakwu (2024) observed similar patterns where females were more represented in certain academic fields, particularly in education and information-related disciplines. This may be attributed to the perception of LIS as a gender-inclusive discipline that provides opportunities for both academic and professional development. With regard to

age, the majority of students (50.0%) were within the 21–25 age range, aligning with the conventional undergraduate age bracket in Nigerian universities. This result corresponds with Adelegan (2024), who found that most undergraduate respondents in his study on AI and education were in their early twenties, which is considered the prime age for higher cognitive adaptability and technological adoption.

In terms of level of study, the highest representation was from 300-level students (34.2%), followed by 400-level students (26.8%), indicating that a larger proportion of respondents were senior undergraduates who had more exposure to academic research and digital tools. This finding resonates with Perculiar, Oduselu-Hassan and Jonathan (2025), who noted that senior students often demonstrate higher levels of AI tool adoption, as they are more engaged in complex academic tasks such as research writing and project work. Additionally, the distribution across states showed that Delta State universities accounted for 69.1% of the sample, while Edo State accounted for 30.9%. This disparity mirrors the larger number of LIS programmes and enrolments in Delta State, as supported by Amuche, Uzokife and Anunike (2025), who highlighted that institutional distribution often shapes access to educational innovations such as AI tools. Overall, these socioeconomic patterns are crucial as they help contextualise the students' usage of ChatGPT within demographic realities, particularly gender balance, age distribution, academic maturity, and institutional context.

Research Question 1: To what extent do Undergraduates of Library and Information Science Use ChatGPT for academic purposes in university?

Table 2: Extent of ChatGPT Usage

Items on Usage	Mean	Std. Dev	Remark
I use ChatGPT to clarify difficult concepts	3.52	0.623	High
I use ChatGPT to complete assignments	3.41	0.716	High
I use ChatGPT to support research writing	3.37	0.662	High
I use ChatGPT for exam preparation	3.15	0.739	High
I rely on ChatGPT more than textbooks	2.88	0.743	High
Grand Mean	3.27		High

The results in Table 2 shows a grand mean of 3.27, indicating a high level of use among LIS undergraduates. Respondents reported that they frequently used ChatGPT to clarify difficult concepts (M = 3.52), complete assignments (M = 3.41), support research writing (M = 3.37), and prepare for examinations (M = 3.15). Although reliance on ChatGPT more than textbooks was comparatively lower (M = 2.88), it was still rated high, suggesting that students increasingly depend on the tool for various academic purposes.

The findings on the extent of ChatGPT usage revealed a grand mean of 3.27, indicating a high level of use among undergraduates of Library and Information Science. Students reported using ChatGPT mainly to clarify difficult concepts (M = 3.52), complete assignments (M = 3.41), and support research writing (M = 3.37). This finding aligns with Adelegan (2024), who experimentally showed that ChatGPT significantly improved students' knowledge acquisition and comprehension across different subjects. Similarly, Nnanna-Ohuonu (2025) found that frequent users of AI tools outperformed occasional users in marketing education, reinforcing the observation that consistent application of ChatGPT in academic tasks enhances performance. The reported use of Chat GPT for exam preparation (M = 3.15) also highlights its growing relevance in helping students engage with course content beyond traditional learning

methods. Interestingly, while reliance on ChatGPT more than textbooks had the lowest mean ($M = 2.88$), it still fell within the “high” range, suggesting that although students value the tool, they have not entirely abandoned traditional study materials. This aligns with Polo, Emmanuel and Obande (2024), who warned that while AI tools enrich learning, they should be used as complementary aids rather than replacements for core academic resources. Oyeyemi, Okoye, Okenwa-Fadele and Abiakwu (2024) also emphasised that AI-supported learning enhances problem-solving and critical thinking, but cautioned against overdependence. The high overall extent of ChatGPT usage reported in this study reflects a growing shift towards technology-driven learning in Nigerian universities, but it also raises questions about long-term reliance and its implications for independent study, as highlighted by Offor, Nwaru, and Offiah (2024).

Research Question 2: What are the perceived benefits of ChatGPT on academic performance of Undergraduates of Library and Information Science?

Table 4.3: Perceived Benefits of ChatGPT

Benefits of ChatGPT	Mean	Std. Dev	Remark
Improves understanding of concepts	3.62	0.595	Agreed
Improves problem-solving skills	3.44	0.682	Agreed
Enhances critical thinking ability	3.21	0.740	Agreed
Improves academic performance generally	3.55	0.616	Agreed
Saves time and increases study efficiency	3.59	0.574	Agreed
Grand Mean	3.48		Agreed

The result in Table 3, benefits of ChatGPT revealed a grand mean of 3.48, showing that students generally agreed on its positive impact. Respondents affirmed that ChatGPT improves understanding of concepts ($M = 3.62$), enhances problem-solving

skills (M = 3.44), supports critical thinking (M = 3.21), improves overall academic performance (M = 3.55), and saves time while increasing study efficiency (M = 3.59).

The findings on the perceived benefits of ChatGPT revealed a grand mean of 3.48, indicating that students generally agreed that the tool positively impacted their academic activities. Respondents strongly acknowledged that ChatGPT improved their understanding of concepts (M = 3.62) and enhanced their overall academic performance (M = 3.55). They also agreed that it saved time and increased study efficiency (M = 3.59), reflecting ChatGPT's role in facilitating quick access to knowledge and simplifying complex learning tasks. These results are consistent with Adelegan (2024), who experimentally demonstrated that ChatGPT significantly enhanced students' knowledge acquisition and comprehension across diverse subjects. Similarly, Oyeyemi et al. (2024) reported that AI tools improved students' problem-solving abilities and learning efficiency, thereby contributing to better academic outcomes.

Moreover, the students' agreement that ChatGPT enhances problem-solving skills (M = 3.44) and critical thinking ability (M = 3.21) suggests that the tool contributes to higher-order cognitive development. Nnanna-Ohuonu (2025) found a strong positive correlation between AI usage and academic performance in marketing education, with frequent users outperforming occasional users. This aligns with the present findings that ChatGPT strengthens comprehension and academic engagement. However, the relatively lower mean for critical thinking compared to other benefits highlights ongoing concerns raised by Polo, Emmanuel and Obande (2024), who questioned the reliability and depth of AI-generated knowledge. Despite such concerns,

the overall findings indicate that ChatGPT is perceived as a valuable academic resource that enhances understanding, performance, and study efficiency among LIS undergraduates in Edo and Delta States.

Research Question 3: What are the challenges encountered in the use of ChatGPT for learning and research by Undergraduates of Library and Information Science?

Table 4: Challenges of ChatGPT Use

Challenges	Mean	Std. Dev	Remark
Lack of training on effective use	3.59	0.63	Agreed
Over-dependence on ChatGPT	3.42	0.71	Agreed
Risk of plagiarism and dishonesty	3.68	0.54	Agreed
Inaccuracies in ChatGPT responses	3.28	0.70	Agreed
Limited access to internet/data	2.37	0.67	Disagreed
Grand Mean	3.27		Major

The results in Table 4 on challenges associated with ChatGPT use showed a grand mean of 3.27, indicating major challenges overall. Respondents agreed that lack of training (M = 3.59), over-dependence (M = 3.42), risk of plagiarism and dishonesty (M = 3.68), and inaccuracies in ChatGPT responses (M = 3.28) posed significant problems. However, they disagreed that limited access to internet or data (M = 2.37).

The findings revealed a grand mean of 3.27, showing that students largely agreed on the major challenges associated with ChatGPT use. The most pressing concerns were the risk of plagiarism and dishonesty (M = 3.68) and lack of training on effective use (M = 3.59). These findings support Offor, Nwaru, and Offiah (2024), who observed that misuse of AI tools among students often led to plagiarism, examination malpractice, and over-dependence, thereby undermining academic integrity. Similarly, Amuche, Uzokife and Anunike (2025) emphasised that insufficient training and awareness remained key

barriers to effective integration of AI tools in Nigerian higher education, which often limits students' ability to maximise their potential. Over-dependence on ChatGPT (M = 3.42) was also considered a major issue, aligning with Polo, Emmanuel and Obande (2024), who warned that excessive reliance on AI systems could weaken originality and undermine the credibility of students' academic work.

Inaccuracies in ChatGPT responses (M = 3.28) were also acknowledged as a challenge, pointing to the need for students to develop evaluative and critical skills when engaging with AI-generated content. Polo, Emmanuel and Obande (2024) similarly raised epistemological concerns about the credibility and reliability of AI outputs, urging structured guidance to mitigate these weaknesses. Interestingly, respondents disagreed that limited access to internet and data (M = 2.37) was a major challenge, suggesting that most LIS students in Edo and Delta States had relatively stable access to digital resources. This finding differs from earlier studies such as Amuche, Uzokife and Anunike (2025), where infrastructural barriers such as internet connectivity were identified as critical constraints in AI adoption. While infrastructural access may no longer be a primary barrier, issues of training, ethical use, and academic integrity remain central challenges in the use of ChatGPT.

Research Question 4: What is the relationship between ChatGPT usage with the critical thinking, independent study habits, and research skills of Undergraduates of Library and Information Science?

Table 5: Relationship between ChatGPT usage with the critical thinking, independent study habits, and research skills

Variables	ChatGPT Usage	Critical Thinking	Independent Study Habits	Research Skills
ChatGPT Usage	1			
Critical Thinking	0.421**	1		
Independent Study Habits	0.398**	0.365**	1	
Research Skills	0.507**	0.438**	0.402**	1

Note: ** Correlation is significant at the 0.01 level (2-tailed)

Test of Hypothesis

H_{01} : There is no significant relationship between of ChatGPT usage and critical thinking, independent study habits, and research skills of Undergraduates of Library and Information Science in Universities.

The results in Table 5 revealed that ChatGPT usage had a moderate positive and significant relationship with all the dependent variables: critical thinking ($r = .421$, $p < 0.01$), independent study habits ($r = .398$, $p < 0.01$), and research skills ($r = .507$, $p < 0.01$). The strongest relationship was observed between ChatGPT usage and research skills, while the weakest was with independent study habits. Since all p-values were less than 0.05, the null hypothesis was rejected.

The findings analysis revealed a significant positive relationship between ChatGPT usage and all three dependent variables: critical thinking ($r = 0.421$, $p < 0.01$), independent study habits ($r = 0.398$, $p < 0.01$), and research skills ($r = 0.507$, $p < 0.01$). This indicates that as students increasingly use ChatGPT, their academic skills improve, particularly in research-related tasks. The strongest relationship was between ChatGPT usage and research skills, suggesting that the tool has become especially valuable for

supporting project writing, literature reviews, and academic assignments. This finding is consistent with Nnanna-Ohuonu (2025), who reported that AI-driven learning environments foster deeper engagement and personalised learning experiences, thereby equipping students with stronger research capabilities. Similarly, Perculiar, Oduselu-Hassan and Jonathan (2025) found that AI tools enhanced students' cognitive development and independent learning, further reinforcing the idea that ChatGPT can promote higher-order skills when used effectively.

On the other hand, the relatively weaker but still significant correlation with independent study habits ($r = 0.398$) suggests that while ChatGPT supports learning, it may also risk diminishing self-reliance, echoing concerns raised by Offor, Nwaru, & Offiah (2024) about students' over-dependence on AI tools. The moderate positive correlation with critical thinking ($r = 0.421$) further demonstrates that ChatGPT can stimulate analytical reasoning and conceptual understanding, though the lower mean values in earlier results point to some limitations in its capacity to fully cultivate critical inquiry. Polo, Emmanuel and Obande (2024) warned that unquestioned reliance on AI-generated content could compromise originality and deeper reflection, which may explain the relatively modest correlations. Nonetheless, the overall findings support the rejection of the null hypothesis and affirm that ChatGPT significantly influences the critical thinking, independent study habits, and research skills of LIS undergraduates in Edo and Delta States.

Recommendations

Based on the findings of the study, the following recommendations were made:

- i. Nigeria University Commission (NUC), Policy makers and regulatory bodies in higher education should include AI-based learning tools in digital education strategies for the effective and ethical use of ChatGPT, ensuring that it serves as a complementary tool rather than a substitute for core academic activities.
- ii. Universities in Edo and Delta States should develop and integrate AI tools such as ChatGPT into classroom instruction by demonstrating its proper use for research, assignments, and independent learning, while emphasising critical evaluation of AI-generated content.
- iii. Library and Information Science Departments in universities in Nigeria should organise regular workshops and training sessions on AI literacy to equip students with the skills to effectively apply ChatGPT in academic research and information management in order to balance it with traditional learning resources to enhance originality, critical thinking, and independent study habits.

Conclusion

This study examined the influence of ChatGPT on the academic performance of Library and Information Science undergraduates in universities in Edo and Delta States. The research highlighted the increasing integration of artificial intelligence into higher education, showing that ChatGPT has become widely adopted tool among students for learning, assignments, research, and knowledge enhancement. At the same time, it underscored the opportunities and challenges that accompany its use, particularly with respect to academic integrity, originality, and independent study. Overall, the study concludes that ChatGPT holds great potential as a supportive learning resource for LIS

education in Nigeria, but its effective contribution depends on structured guidance, responsible usage, and institutional support to maximise its benefits while minimising associated risks.

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