Artificial Intelligence and Students' Academic Performance in Ritman University, Ikot Ekpene

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Abstract

The study examined the level of familiarity with, extent of utilising and the impact of AI-based tools on the academic performance of undergraduate students at Ritman University. The theoretical underpinning for this study was the diffusion of innovation theory. This study adopted the quantitative research design using the survey research method. The population of this study consisted of the 432 students of Ritman University as at the 2023/2024 academic session. Using the Taro Yamane formula for sample size derivation, the study's sample size was 202. The questionnaire administered in person was used as method of data analysis. The study found that Ritman University students show moderate familiarity with AI-based tools (46.24%) and use them to a moderate extent for academic purposes, with 50.54% using them frequently but spending limited time on these tools (36.56% using them for less than 1 hour and 34.41% for 1-3 hours per week). AI tools are mainly used for research, assignments, and term writing (62.37%), with limited use in exam preparation (4.84%). The use of AI tools is positively correlated with academic performance (r = 0.418, p = 0.05), suggesting that while AI tools enhance academic outcomes, other factors also influence students' success. It was concluded that while AI tools have shown a positive impact on students' academic performance, their full potential has yet to be realised. This study recommends that Ritman University should implement comprehensive training programmes, encourage broader use of AI tools in coursework and assessments, promote AI use for diverse academic tasks, and educate students on leveraging AI to ethically improve academic performance.

Key words: Artificial Intelligence, Academic Performance, AIED, Ritman University, Diffusion of Innovation

Introduction

In the modern world, where new technologies are created quickly, Artificial Iintelligence (AI) is one of the most innovative technological developments of this century and has recently become well-known worldwide. There has been a surge in discussion on artificial intelligence's impact on productivity in a range of industries, such as banking, communication, and commerce, since its introduction in the 1970s and rise to popularity in the 21st century (Woolf, Lane, Chaudhri, & Kolodner, 2013). The use and influence of AI-based technologies have become more and more fascinating as a result of their integration into various industries. Carrillo-Perez, Pecho, and Morales (2022) as well as Heo, Kim, Hwang, Han, Kim, Yi, and Park (2021) attest to the adoption and use of AI and is beginning to have an impact on a wide range of human efforts. Natural language processing (NLP) and machine learning are two examples of artificial intelligence technologies that Watrianthos, Ahmad, and Muskhir (2023) claimed have enormous potential in a variety of human endeavours, including education.

Following this, the possibility that artificial intelligence (AI) would enhance education has led to an expanding body of discourse about how AI might be applied in education across a range of operational and geographic contexts (Salido, 2023). According to Salido, there is general agreement that AIs can improve educational experiences and outcomes. Although, these expectations are often based on a misperception of current technological capabilities, a lack of knowledge about cutting-edge AI in education, and unduly restrictive perspectives on the functions of education in society. Woolf *et al*. (2013) note that the implementation of AI-based learning systems in homes and classrooms is still uncommon, although AI has the potential to have a significant impact on education.

Ten years after Woolf *et al*. (2013) made the aforementioned statement; there is compelling evidence that this is still the case in Africa. Undoubtedly, artificial intelligence are being utilised in African schools by teachers and students. However, their application is still restricted because of issues such as insufficient funding, inadequate infrastructure, and restricted access to technology (Ashiru, 2023, Ade-Ibijola & Okonkwo, 2023). The pace at which AI is being implemented in Africa is still a major cause for concern, despite the fact that AI has the potential to revolutionise education in the continent and address some of the particular issues that African education systems face (Ashiru, 2023).

Additionally, research has been done on the degree of AI proficiency among Nigerian university teachers (Olatunde-Aiyedun & Hamma, 2023). Furthermore, studies have looked into how much engineering students' final Cumulative Grade Point Average (CGPA) and fifth-year CGPA at a Nigerian university can be predicted using AI (Adekitan & Salau, 2019); factors influencing science teachers' adoption of AI by using the "Technology Acceptance Model" (TAM); and the use of AI to find relationships between student outcomes in a particular course (Nja *et al*., 2023). Yet, these is still lacking empirical studies on the impact that the usage of AI-based tools for academic purposes can impact on the academic performance of these students.

Consequently, this study attempts to fill this gap by examining how a cross section of Nigerian students in Ritman University use AI technologies and the correlation between the usage of these tools and their academic performance using their Grade Point Averages (GPAs). Specifically, this study seeks to ascertain whether Ritman University students use AI-based tools for academic purpose and how their academic performance has been affected by the use of these

tools. This study also briefly examines the difficulties that students encounter or face in using artificial intelligence (AI) for academic purpose.

Brief History on Ritman University

Ritman University is located in Ikot Ekpene, Akwa Ibom State, Nigeria. Ritman University, RU is a privately owned and managed university in Nigeria. Ritman University offers various undergraduate courses/programmes. The National University Commission (NUC) granted operational license to Ritman University on March 5, 2015, the university began academic activities on November 23, 2015. Ritman University was founded by Emmanuel Ibok Essien, a former Senator who represented the North West Senatorial District of Akwa Ibom State at the 4th Nigerian National Assembly (Senate) between (1999-2003). Senator Essien established the university according to him as "a response to the yearning of renascent Africans for an entrepreneurial university that develops the mind for total productivity, inculcate positive values and offers resources for navigating the world with ease". Ritman University has a student population of 432 students spread across its three faculties. Ritman University courses are fully accredited and recognized by the National Universities Commission (NUC), a body overseeing all universities in Nigeria.

Statement of the Problem

Higher education institutions have been increasingly adopting contemporary technologies and methods to enhance learning outcomes in a more scalable and affordable manner. Among these advancements, the integration of Artificial Intelligence (AI) tools, particularly generative AI applications like ChatGPT, has gained significant attention. These AI-driven platforms can generate essays, articles, and other forms of academic content, offering students and educators innovative ways to improve teaching and learning processes.

However, the rapid proliferation of such technologies has raised critical concerns, particularly regarding issues like academic integrity, intellectual laziness, and the transparency of AI-generated content. As AI tools continue to reshape educational practices, questions regarding their impact on students' academic performance and the ethical implications of their use remain largely unexamined. Especially within the context of Nigerian universities, specifically Ritman University, Ikot Ekpene.

Thus, this study seeks to address this gap by evaluating the level of familiarity with and use of AI-based tools among undergraduates at Ritman University in order to answer the question: how does the use of AI-based tools impact the academic performance and ethical practices of undergraduates at Ritman University?

Objectives of the Study

The objectives of this study were to:

3   evaluate the level of familiarity of undergraduate students at Ritman University with AI-based tools used for academic purposes;

4   investigate the extent of utilising AI-based tools for academic purposes by undergraduate students at Ritman University;

5   find out which areas that AI-based tools are utilised for academic purposes by undergraduate students at Ritman University; and

6   examine how utilising AI-based tool affects the academic performance among undergraduate students of Ritman University.

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Hypothesis

H_{01}: There is no significant correlation between the usage of AI-based tools for academic purposes and the academic performance of undergraduate students at Ritman University.

Students' Use of AI Applications

Artificial Intelligence (AI), a term coined by emeritus Stanford Professor John McCarthy in 1955, was defined by him as the science and engineering of making intelligent machines (Rodrigo, 2023). According to Salido (2023), it is a branch of study in which computer systems are meant to do tasks that are generally associated with humans. Artificial Intelligence, often abbreviated as AI, refers to the development of computer systems and machines that can perform tasks that typically require human intelligence. Artificial Intelligence is being used in every aspect of life in recent years, and it is constantly improving. (Ukpong & Okpongkpong, 2022).

Students' use of AI applications in education has been on the rise (Chen *et al.*, 2020). Artificial Intelligence (AI) offers a range of tools and techniques to construct computational models of students' cognitive and emotional abilities, which can then be leveraged to facilitate personalized learning experiences. Dahmash *et al.* (2020) ascertained that students with a better understanding of AI exhibited lower levels of anxiety regarding its impact. However, conflicting beliefs were observed among college students, where those with a high level of understanding and belief in AIs benefits also expressed concerns about its potential impact on human jobs (Jeffrey, 2020). Also, the amount of time spent on chatbot use in a second language writing class was positively associated with students' confidence in using the target language and perception of task value (Bailey *et al.*, 2021).

Additionally, students' attitudes towards Generative AI technologies showed that they were generally positive towards their integration into learning practices and future careers (Chan and Hu, 2023). Similarly, Garrel and Mayer (2023) stated that over 60% of students at a German university had used AI-based tools to support their learning. Nguyen (2023) opined that students frequently used the tools to check grammar and spelling. The study also revealed that teachers and administrators/policymakers were generally receptive to the trend of using AI applications in education. Several drawbacks and concerns regarding AIs use were identified by students, including limited human interaction and emotional connection (Bisdas *et al.*, 2021), potential data leakage (Bisdas *et al.*, 2021), and breaches of ethics (Gillissen *et al.*, 2022; Jha *et al.*, 2022). Moreover, some students expressed concerns about reduced job opportunities or increased demand for job practices due to AI (Ghotbi *et al.*, 2022). However, there are varying or even opposing perceptions of the use of AI applications in academic writing, highlighting the need for further research and discussion on this topic.

Measurement of Students Academic Performances in Nigerian Universities

Academic performance in universities refers to students' achievements in their educational pursuits and is often measured through various indicators. These indicators can include grades, exam scores, research output, class participation, and other forms of assessment (Al-Abyadh & Azeem, 2022). Additionally, academic performance can be influenced by factors such as study skills, self-management, self-efficacy, and engagement (Tadese, Yeshaneh, & Mulu, 2022). In Nigerian universities, according to Ezenwoke *et al.* (2018), the most commonly used academic performance measure is the Grade Point Average (GPA). The GPA is a form of grading system

calculated based on the average of the total grade points. The GPA is used to determine students' academic standing and is an essential factor in assessing their performance. Additionally, the Cumulative Grade Point Average (CGPA) is also used, representing the average result obtained from accumulating every GPA over the duration of a programme (York, Gibson, &Rankin, 2015).

Students Use of AI Applications and Academic Performance

The potential of AI in enhancing language acquisition and learning outcomes in classroom settings have been widely studied. Bailey *et al*. (2021) and Sumakul *et al*. (2020) showed that generative AI tools can assist students in grammar, idea generation, and communication in the target language. Also, AI KAKU, a GenAI tool based on the GPT-2 language model, was found to be user-friendly and effective in helping students express themselves in English (Gayed *et al*., 2022). The integration of generative AI-based applications for learning support has also been shown to improve students' learning achievement, self-efficacy, learning attitude, and learning motivation (Essel *et al*., 2022; Lee *et al*., 2022).

Additionally, Chen *et al*. (2023) reported positive user feedback on the use of chatbots in business education. Students cited that chatbots' responsiveness, interactivity, and confidential learning support as key advantages. Furthermore, the integration of AI has been viewed as an essential part of university curricula (Abdelwahab *et al*., 2022; Bisdas *et al*., 2021; Gong *et al*., 2019; Yüzbaşioğlu, 2021). These findings suggest that AI has the potential to revolutionize language learning and teaching, and its integration into classroom settings is likely to have a positive impact on learning outcomes.

Theoretical Framework

The theoretical framework for this study is hinged on the Diffusion of innovation theory. Developed by E.M. Rogers in 1962, the Diffusion of Innovation Theory explores how, why, and at what rate new ideas and technology spread across cultures. Rogers identifies four key elements in the diffusion process: innovation, time, communication channels, and social system. The theory assumes that individuals go through a five-stage process (knowledge, persuasion, decision, implementation, and confirmation) when adopting an innovation (Rogers, 2003; Medlin, 2001). The theory is particularly relevant to understanding how AI technologies might be adopted and implemented in higher education to impact students' academic performance, as it addresses factors influencing technology adoption within a university environment.

Review of Empirical Study/ Gap Recognition

Mhlanga (2023) found that the use of ChatGPT in education requires respect for privacy, fairness and non-discrimination, transparency in the use of ChatGPT, and a few other factors that were included in the paper. Mhlanga emphasises the need for ethical considerations in the use of AI tools in education, including the respect for privacy, fairness, transparency, and non-discrimination; calling for the implementation of these principles to ensure accountability in the global education sector. In contrast, Kelly, Sullivan, and Strampel (2023) focused on the lack of familiarity and experience among university students with generative AI tools. Kelly, Sullivan and Strampel found that most university students had low knowledge, experience, and confidence in using generative artificial intelligence tools, awareness levels varied, with a significant portion of students having heard very little or nothing about these tools, sources of

information about generative artificial intelligence included social media, news media, other students, and work.

On the other hand, Salido (2023) highlighted the positive impact of AI-powered learning tools on academic performance, particularly through personalised and adaptive learning experiences. Salido established that AI-powered learning tools have the potential to significantly improve students' academic performance and comprehension by enabling personalised and adaptive learning experiences, the use of AI-driven educational resources, such as intelligent tutoring systems and virtual learning environments, was found to enhance students' overall learning outcomes. Despite these promising outcomes, Salido pointed out the ethical concerns surrounding AI, such as plagiarism and the potential erosion of critical thinking skills, as well as the challenges of providing equitable access to these technologies.

However, a gap exists. While previous studies focused on general perceptions and global trends, few have explored the actual level of familiarity, extent of use and specific areas in which AI-based tools are utilised by students, particularly in Nigerian higher education institutions such as Ritman University, and their direct impact on students' academic performance. To fill this gap, this study examines the level of familiarity and usage of AI-based tools among undergraduates at Ritman University was carried out; investigating the specific areas in which these tools are applied, and examining their effects on academic performance.

Research Methodology

Survey research method was used for this study. The population of this study consisted of the 432 students of Ritman university for the 2023/2024 academic session (Administration Officer, Ritman University, 2023). The sample size for this study was using the Taro Yamane formula which equalled 202. Multi-stage sampling was used for this study. In the first stage, the researcher clustered Ritman students into the various faculties in the university. There are three faculties in Ritman University, which are Natural and Applied Sciences (NAS), Social and Management Sciences as well as Humanities.

In the second stage, the researcher purposively selected two departments from each of the faculties. This equalled to a total of six departments purposively selected for this study. In the third stage, the researcher randomly sampled undergraduates across the various levels of the purposively selected departments. The sampled students serve as respondents for this study. The researcher-structured questionnaire was adopted as the instrument. This study utilised table distribution with frequency and percentage for data presentation and analysis. The Pearson correlation coefficient formula was used as inferential statistical tools to test this study's hypotheses.

Data Presentation and Analysis

A total of 202 questionnaires were administered, 192 copies of questionnaire were retrieved from the respondents. Ten copies of the questionnaire were not retrieved due to the unavailability of the students. Out of these, 186 were valid and useable for this analysis. Six copies were considered invalid because the respondents ticked that they do not use AI.

Table 1: Familiarity with AI-Based Tools for Academic purpose

Options	Frequency	Percentage

Extremely familiar	13	6.99
Moderately familiar	86	46.24
Not familiar	24	12.90
Somewhat familiar	24	12.90
Very familiar	39	20.97
Total	186	100

Source: Fieldwork, 2024

Table 1 shows the majority of Ritman university students who participated in this study (46.24%) were moderately familiar with AI-based tools for academic purposes. A significant section of students, approximately 5 out of every 10 students, had a moderate to high familiarity with AI tools (53.23%) show high level of exposure and potential comfort level with integrating these technologies into their academic activities.

Table 2: Use of AI-Based Tools among Students

Frequency	Frequency	Percentage
Always	30	16.13
I do not use AI	15	8.06
Never	8	4.30
Often	64	34.41
Rarely	33	17.74
Sometimes	36	19.35
Total	186	100

Source: Fieldwork, 2024

Table 2 highlights that a significant portion of students, approximately 5 out of every 10 (50.54%), frequently integrate AI tools into their academic activities, with about 3 out of every 10 students (34.41%) using AI-based tools often, and roughly 2 out of every 10 (16.13%) using them always. This indicates a growing reliance on AI technologies among many students, alongside diverse approaches to their usage.

Table 3: Time Spent Using AI-Based Tools

Options	Frequency	Percentage
10 hours and more	3	1.61
1-3 hours	64	34.41
4-6 hours	22	11.83
7-9 hours	8	4.30
I don't use AI.	21	11.29
Less than 1 hour	68	36.56
Total	186	100

Source: Fieldwork, 2024

Table 3 illustrates that the majority, approximately 4 out of every 10 students (36.56%), dedicated less than 1 hour, and about 3 out of every 10 students (34.41%) spent 1-3 hours. Smaller groups reported spending 4-6 hours (11.83%), not using AI (11.29%), 7-9 hours (4.30%), and 10 hours or more (1.61%). While a significant number of students engage with AI

tools, most students do so for relatively short periods each week. This implies that AI tools are used more as supplementary aids rather than primary resources in their academic activities.

Table 4: Extent of Usage of AI tools

Options	Frequency	Percentage
High extent	102	54.84
I do not use AI for academic	21	11.29
Low extent	30	16.13
Very high extent	20	10.75
Very low extent	13	6.99
Total	186	100

Source: Fieldwork, 2024

Table 4 indicates that a significant portion of students, approximately 5 out of every 10 (54.84%), use AI tools to a high extent. Contrary, only 1 out of every 10 students (11.29%) do not use AI tools for academic purpose at all. Over half of the students who participated in this study heavily rely on AI tools for their academic activities, indicating a strong integration of these technologies into their study routines.

Table 5: Areas of Utilisation of AI-Based Tools for academic purposes

Options	Frequency	Percentage
Exam preparation	9	4.84
I do not use AI	24	12.90
Personal study time	37	19.89
Research/assignments/Term writing	116	62.37
Total	186	100

Source: Fieldwork, 2024

Table 5 illustrates that approximately 6 out of every 10 students (62.37%) leverage AI tools for research, assignments, and term writing. This highlights perceived value in enhancing academic productivity and the quality of work. Two out of every 10 students (19.89%) use AI tools for personal study, applying them to individual learning efforts. Conversely, AI usage for exam preparation is minimal, with around 1 out of every 20 students (4.84%) employing AI for this purpose. While AI tools are largely seen as valuable aids for research and assignments, their role in exam preparation appears limited, suggesting that students may still favour conventional study strategies for exams.

Test of Hypothesis

The study used Pearson correlation coefficient formula to test this hypothesis.

H_{01}: **There is no significant correlation between the usage of AI-based tools for academic purposes and the academic performance of undergraduate students at Ritman University.**

Table 6: Pearson's Correlation Analysis Between Usage of AI-Based Tools and Academic Performance

Variable	Mean	SD	Correlation (r)	R^2	p-value
Usage of AI Tools	2.47	$\sqrt{238.02}$	0.418	0.175	0.05
Academic Performance	3.67	$\sqrt{56.49}$			

Source: Field survey, 2024. *Note. N = 186. A significant correlation was observed at r = 0.418, p = 0.05. R² represents the proportion of variance explained.*

Table 6 shows a Pearson's correlation coefficient (r) of 0.418 which indicates a moderate positive relationship, suggesting that increased usage of AI tools correlates with higher academic performance. The R^2 value of 0.175 indicates that 17.5% of the variance in academic performance is explained by the usage of AI tools. Given that the p-value is 0.05, the relationship is considered statistically. Thus, we reject the null hypothesis (H02) and conclude that there is a significant correlation between the usage of AI-based tools for academic purposes and the academic performance of undergraduate students. This means that as the usage of AI-based tools increases, there is a tendency for academic performance to also improve, although the relationship is not very strong.

Discussion of Findings
Research Question 1: What is the level of familiarity of undergraduate students at Ritman University with AI-based tools used for academic purposes?

Ritman University students show a moderate level of familiarity with AI-based tools (46.24%). This suggests that most students are relatively familiar and comfortable with incorporating AI tools into their academic activities (Table 1). Many students have gained at least some level of exposure to AI tools, reflecting an increasing awareness and willingness to engage with emerging technologies. The fact that nearly half of the students are moderately familiar indicates a shift towards mainstream adoption of AI tools in academic environments. However, there is still a significant portion of students who may not yet fully embrace these technologies or may still be unfamiliar with their potential uses.

This aligns with the observed trend where, despite growing interest in AI tools, full integration is still ongoing, and students are at varying stages of their comfort and confidence with these technologies. The moderate familiarity also suggests that AI-based tools are beginning to be seen as valuable academic aids but have not yet reached complete widespread use. The variation in familiarity likely points to differences in the adoption process, where some students may be early adopters, while others are still hesitant or uninformed about these technologies.

Supporting this, the study of Kasneci *et al.* (2023) points to a familiarity of students with GenAI literacy in higher education, emphasizes the transformative potential of AI in academia. However, this contradicts finding of Kelly, Sullivan, and Strampel (2023), who found that many university students still lack familiarity and confidence with generative AI tools. Ritman University can be classified with this level of familiarity as being in the "Early Majority" stage as per the Diffusion of Innovation Theory. This group is typically characterised by individuals who adopt new technologies once they become more established and proven. While a significant portion of students are already familiar with AI tools, further efforts are needed to engage the "late majority" and "laggards," ensuring that all students can fully benefit from AI tools in their academic pursuits.

Research Question 2: To what extent do undergraduate students at Ritman University utilise AI-based tools for academic purposes?

Ritman University students demonstrate a moderate to high familiarity with AI-based tools, with 50.54% using them frequently for academic purposes (Table 2). Most students spend a relatively short amount of time using AI tools, with approximately 4 out of 10 students dedicating less than 1 hour and 34.41% spending 1-3 hours per week (Table 3). A majority of the students utilise these tools to a high extent, indicating strong integration into their academic routines (Table 4). These results suggest that AI tools are becoming an integral part of the academic experience for many students, but their usage is still somewhat limited in terms of duration. The relatively short time spent on these tools indicates that while they are a valuable aid, students may not yet be fully reliant on them for all aspects of their academic work. It could also imply that AI tools are used more as supplementary resources, enhancing but not replacing traditional methods of learning. This finding also highlights a variety in the usage of AI among students of Ritman University.

Ward, Bhati, Neha, and Guercio (2019) corroborate this finding by stating that students reported using AI tools often, with a combined total of 78% incorporating these tools into their regular study routines. Similarly, von Garrel and Mayer (2023) found that almost two-thirds of students surveyed had used AI-based tools as part of their studies. These findings align with the early majority stage in the Diffusion of Innovation theory, where the technology is gaining widespread use, but is still not fully adopted by all students. The continued expansion of AI use among students suggests that the technology is at a tipping point, with adoption likely to increase as it becomes more integrated into educational practices and students become more comfortable with it.

Research Question 3: What are the areas of utilising AI-based tools for academic purposes by undergraduate students at Ritman University?

At Ritman University, undergraduates primarily use AI-based tools for research, assignments, and term writing, with 62.37% leveraging these tools for academic purposes. Additionally, 19.89% use AI tools for personal study, while only 4.84% employ them for exam preparation, indicating that AI is mainly valued for academic tasks rather than exam-related study. (Table 5). With this, Ritman University students tend to view AI tools as particularly beneficial for tasks such as research, assignments, and term writing, where these tools can enhance productivity and the quality of work. The relatively low use of AI for exam preparation implies that students may still prefer traditional study methods for exams, possibly due to the structured nature of exams and the need for deeper, more personalised understanding. While AI is valued for its ability to assist with information gathering and writing, it may not yet be seen as an effective tool for the high-stakes, focused preparation required for exams. The limited use of AI in this context highlights an area where further adoption and integration might be encouraged to provide a more comprehensive support system for students' academic activities.

A study conducted Weerasinghe and Abeysinghe (2024) made a similar finding that 99% of undergraduates used AI tools for academic activities, with a significant focus on writing assistance and research tasks. Also, McKearin (2024) highlighted that students primarily use AI tools for writing assistance and research. This strengthens the decision process of diffusion of

innovation. In the decision and implementation stages, many students have actively decided to implement these tools into their academic routines, particularly for research and writing. However, the limited use for exam preparation suggests that some students are still in the confirmation stage, evaluating whether AI can be as effective in high-stakes, structured contexts like exams.

Research Question 4: How does utilising these AI-based tools affect the academic performance among undergraduate students of Ritman University?

The usage of AI-based tools for academic purposes at Ritman University has a moderate positive correlation with academic performance. A Pearson's correlation coefficient of 0.418 indicates that as students use AI tools more frequently, their academic performance tends to improve. However, the relationship is not very strong, with only 17.5% of the variance in academic performance explained by AI tool usage (Table 6). This suggests that while AI tools can positively impact academic outcomes, other factors also play a significant role in determining students' performance. This finding aligns with that of Ward (2024) that there is a strongly positive trend in the perceived academic impact of AI tools with a substantial majority reporting academic improvement, nearly half of all students experienced significant improvement. Only about one in six students reported no improvement.

The combined positive response suggests AI tools are effectively supporting academic performance. The findings align with the "Implementation" stage of the Diffusion of Innovation (DOI) theory. In this stage, adopters actively incorporate the new technology into their routines, and the impact on their performance becomes more apparent. With this, while the technology is being adopted and showing benefits, its full integration and impact may take time and further adoption across the student body.

Summary of Findings

The major findings of this study were centred on the impact of Artificial Intelligence (AI) tools on the academic performance of students at Ritman University, thus:

1. Ritman University students exhibit moderate familiarity with AI-based tools (46.24%), indicating a growing awareness and integration of these technologies into academic activities, though full adoption is still in progress.
2. Students at Ritman University utilise AI-based tools to a moderate extent for academic purposes, with 50.54% using them frequently. However, time spent on these tools is limited, with 36.56% spending less than 1 hour and 34.41% spending 1-3 hours per week, suggesting that AI tools serve as supplementary aids alongside traditional learning methods.
3. AI-based tools are predominantly used for research, assignments, and term writing (62.37%), with limited application in exam preparation (4.84%), highlighting their role in enhancing productivity but not yet being fully integrated for high-stakes study.
4. The use of AI-based tools at Ritman University shows a moderate positive correlation with academic performance (r = 0.418, p = 0.05), suggesting that while AI tools contribute to better academic outcomes, other factors also play a significant role in influencing students' success.

Conclusion

Artificial intelligence (AI) tools have increasingly become a prominent feature in modern academic settings, offering students a range of possibilities to enhance their learning experiences and academic performance. This study examined the impact of AI, particularly ChatGPT, on students' academic activities at Ritman University, Ikot Ekpene, providing valuable insights into how students use these tools and their correlation with academic performance. While AI tools are widely used for tasks such as research, assignments, and term writing, their application has not yet fully harnessed the potential to significantly impact academic performance. While AI tools are generally viewed positively by most students, their contribution to academic performance has been limited.

There is concern, however, regarding a segment of students who either refrain from using AI tools entirely or do not trust them for academic purposes. This highlights a disparity in how AI is embraced within the academic community, with some students yet to realise or trust its full potential. These students are comfortable using AI tools for tasks like research and writing but still prefer traditional study methods for exam preparation, indicating the limitations of AI in high-stakes contexts.

Also, the study reveals a moderate level of familiarity with AI tools, which, while encouraging, suggests that more targeted training could help increase students' confidence and competence in using these technologies. The challenges students face in understanding and effectively using AI underscore the need for user-friendly interfaces and accessible resources to make these tools more approachable. Therefore, while AI tools have shown a positive impact on students' academic performance, their full potential has yet to be realised. Further integration, training, and support are needed to ensure that these tools can be more effectively utilised in all aspects of academic work, particularly in high-stakes situations such as exam preparation.

Recommendations

This study recommends that:

1. Ritman University implement comprehensive training programs, such as workshops and seminars, to increase students' familiarity with AI tools. Faculty members should also integrate AI tools into their teaching to provide regular exposure.
2. The university encourage broader use of AI tools by incorporating them into official coursework, including assignments, projects, and assessments, to increase the frequency of AI usage across academic tasks.
3. Ritman University promote the use of AI tools for diverse academic purposes, including exam preparation, study planning, and problem-solving exercises, helping students incorporate AI into all aspects of their academic work.
4. Ritman University should educate students on how to leverage AI tools to improve academic performance by teaching and encouraging students to ethically use these tools for tasks directly linked to exam preparation and other high-stakes academic activities.

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