USES AND ABUSES OF ARTIFICIAL INTELLIGENCE TOOLS AMONG FINAL YEAR STUDENTS OF FACULTY OF AGRICULTURE, UNIVERSITY OF BENIN, EDO STATE, NIGERIA

BY

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AGR2000026

DEPARTMENT OF AGRICULTURAL ECONOMICS AND EXTENSION SERVICES
FACULTY OF AGRICULTURE
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BENIN CITY

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A PROJECT SUBMITTED TO THE DEPARTMENT OF AGRICULTURAL ECONOMICS AND EXTENSION SERVICES, FACULTY OF AGRICULTURE, UNIVERSITY OF BENIN, BENIN CITY, IN PARTIAL FULFILLMENT FOR THE REQUIREMENTS FOR THE AWARD OF BACHELOR'S DEGREE IN AGRICULTURE (OPTION: IN AGRICULTURAL EXTENSION)

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CERTIFICATION

This is to certify that this research work was carried out by **Monica Daberechi NWEKE** with the Matriculation number **AGR2000026** in the Department of Agricultural Economics and Extension Services, Faculty of Agriculture, University of Benin, and that the research project was approved as adequate in scope and quality in partial fulfillment of the award of the bachelor of Agriculture (B.Agric).

Dr. S. O. Konkwo	**Dr. J. I. Osabuohien**
(Project Supervisor**)**	**(**Ag. Head of Department)
Date**:**_____	Date**:**_____

DEDICATION

This project is dedicated to all students in agricultural education, whose engagement with artificial intelligence tools shapes learning, research, and innovation, contributing to the advancement of agriculture and education.

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With a heart full of gratitude, I give all thanks and glory to God Almighty, my source of wisdom, strength, and guidance. His grace has sustained me, His love has uplifted me, and His divine favor has made this journey possible. Through every challenge, He has been my refuge, and without His mercy, this research would not have been accomplished.

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ABSTRACT

This study focused on the uses and abuses of Artificial Intelligence (AI) tools among final year students in Faculty of Agriculture, University of Benin, Edo State, Nigeria. The specific objectives were to: describe the socioeconomic characteristics of final year students in faculty of agriculture; identify the AI tools that the respondents were aware of; identify the interest in the use of AI tools among the respondents; ascertain the use and frequency of use of AI tools among the respondents; identify the purpose of use of AI tools by the respondents; identify the perceived abuses of AI tools by the respondents and examine the constraints in the use of AI tools by the respondents.

A multi-stage sampling procedure was used for a simple random sampling of 145 final year students in faculty of agriculture for the study. Primary data were collected through the use of structured questionnaire. Collected data were analyzed using descriptive statistics such as: frequency counts, simple percentages and mean scores, as well as inferential statistics such as Pearson Product Moment Correlation (PPMC).

Results showed that more than half (64.1%) of the respondents were female with a mean 23 years. Most (99.3%) of the students were single. The result showed that most (90.3%) of the final year students were aware of ChatGPT, with more than half (61.4%) of the students showing interest in using it (ChatGPT). Most (99.3%) of the final-year students used ChatGPT and also indicated daily usage. The result showed that most

(89.7%) of the final-year students used artificial intelligence (AI) tools for writing assignments. The results also showed that the most significant perceived abuse of artificial intelligence tools by final year students was use of AI tools to answer test or examination questions ($\bar{x}$=3.46) and the most significant constraints encountered was the requirement for paid subscriptions for most AI tools ($\bar{x}$ = 3.75). It was concluded that most widely used AI tool by the final year students was ChatGPT, while the use of AI tools to answer test or examination questions was identified as the most significant perceived abuse of AI tools by the respondents. The study therefore recommends that the faculty strengthen academic integrity measures and sensitize students on the ethical use of AI tools, especially discouraging their use for tests and examinations.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

Society has undergone a significant transformation from traditional practices to a modern knowledge-based system, where creativity and innovation are key drivers of progress. As technology evolves, Artificial Intelligence (AI) has emerged as a major topic of discussion. According to Krstić *et al.* (2022), AI is increasingly recognized both globally and nationally as a pivotal technology that will shape the future. To positively maximize the impact of AI in agricultural education, it is crucial to encourage responsible usage, foster critical thinking, and uphold ethical values among students.

The term "artificial intelligence" was first introduced by John McCarthy, a renowned American computer scientist, during the 1956 Dartmouth Conference. This event marked the official recognition of AI as a distinct field of study. McCarthy, often referred to as the "father of artificial intelligence," defined AI as the scientific and engineering discipline focused on creating intelligent machines, particularly those equipped with advanced computer programs (Human-Centered AI Institute, 2020). His ambitious vision aimed to replicate human intelligence in machines, positing that any aspect of learning or intelligence could be accurately described and simulated.

Artificial Intelligence (AI) tools are revolutionizing the world, including the education and agricultural sectors. In agricultural education particularly, innovations such as virtual laboratories, simulation software, and e-learning platforms have gained widespread acceptance and practicality among students (Onyango *et al.,* 2021). Tools like ChatGPT, Elicit, and Grammarly support writing, literature reviews, and communication skill development (Ouyang *et al.,* 2022). Data analysis is another critical area where AI is making an impact. Students use tools like SPSS, Excel's AI features, and Python with AI libraries to analyze survey data and experimental results. These same tools are fundamental in agricultural research and agribusiness, where large datasets on soil, weather, crop yields, and market trends inform decision-making (Gonzalez-Sanchez *et al.,* 2019). Such practical experience prepares students for roles in agricultural data analytics, supporting smart farming and efficient resource management. AI also enhances the teaching of complex agricultural topics. Students benefit from personalized learning through platforms like Socratic by Google, Khan Academy, and YouTube, which use AI to recommend tailored content and explanations. This approach makes subjects like crop science, pest management, and agro-economics more approachable and builds the foundational knowledge necessary for using advanced precision agriculture tools such as smart irrigation, drones, and GPS mapping (Liakos *et al.,* 2018). These resources not only boost academic achievement but also build essential skills for agricultural extension work, such as drafting farmer training

materials, policy documents, and newsletters, according to Food and Agriculture Organization (FAO, 2021).

Despite the growing benefits of AI tools in agricultural education, their improper and unethical use among students is becoming a growing concern. A key issue is academic dishonesty, where learners depend heavily on AI applications such as ChatGPT or QuillBot to complete assignments, research papers, and field reports without proper understanding. Another problem involves the submission of AI-generated false information, including fabricated references, incorrect data, and inaccurate technical content. Such misinformation can be harmful if applied in real agricultural practices. Additionally, excessive dependence on AI tools diminishes students' engagement in essential research activities like data collection, field observations, and analysis, which are fundamental to agricultural education.

1.2 Statement of Problem

In Nigeria, agriculture remains a vital component of the economy, employing a substantial portion of the population and contributing significantly to national food security. Despite its critical role, the agricultural sector in Nigeria continues to face obstacles that hinder growth and threaten food sustainability, leading to low productivity. This is a result of the sector grappling with persistent issues such as

inadequate access to modern technologies and limited youth engagement (Olagunju, 2024). A study conducted by Konkwo and Olubodun (2024) found that although senior secondary school students were willing to gain the necessary knowledge to pursue careers in agribusiness, their efforts were significantly hindered by a lack of access to modern agricultural practices. The integration of AI technologies presents a promising opportunity to bridge these gaps, equipping young agricultural professionals with innovative tools that can enhance their research capabilities and practical farming skills. In agricultural education, AI tools offer opportunities to improve learning outcomes, support research, and enhance productivity. Final year students in the faculty of agriculture increasingly rely on AI platforms such as ChatGPT, Grammarly, QuillBot, and data analysis software to support academic tasks ranging from writing term papers to analyzing field research. In Nigeria, where agricultural education is vital for national growth, the improper use of AI tools threatens the integrity and competence of future graduates. Students sometimes bypass critical academic activities, such as hands-on data collection and original analysis, by substituting authentic work with outputs generated by AI. The lack of clear institutional policies on AI use further complicates the issue, making it difficult to separate ethical practices from unethical ones. This study, therefore, seeks to assess both the productive uses and the potential abuses of AI tools among final year agricultural students, with a view to understanding how these tools influence academic performance, research quality, and readiness for professional

agricultural roles that will advance sustainable agriculture in Nigeria. This research was carried out to answer the following research questions;

1. What are the socioeconomic characteristics of final year students in the faculty of agriculture?
2. Which AI tools are respondents aware of?
3. Do they really have interest in the use of AI tools in solving agricultural problems?
4. In which areas do they use these AI tools, and frequency of use?
5. For what purposes do final year students in the faculty of agriculture use AI tools?
6. Are there some abuses or unethical practices in the use of AI tools the students?
7. What constraints do final year students in the faculty of agriculture face in using AI tools?

1.3 Objectives of the Study

The broad objective of this study was to assess the uses and abuses of artificial intelligence (AI) tools among final year students in Faculty of Agriculture, University of Benin, Edo State, Nigeria. The specific objectives were to:

1. describe the socioeconomic characteristics of final year students in faculty of agriculture;

2. identify the AI tools that the respondents are aware of;
3. identify the interest in the use of AI tools among the respondents;
4. ascertain the use and frequency of use of AI tools among the respondents;
5. identify the purpose of use of AI tools by the respondents;
6. identify the abuses or unethical uses of Ai tools by the respondents;
7. examine the constraints in the use of AI tools by the respondents.

1.4 Justification of Study

Numerous studies have examined the application of artificial intelligence (AI) in education and agriculture, highlighting its increasing significance in these areas. However, there remains a considerable shortage of research that specifically addresses the ways in which AI is both utilized and misused in these fields. This study aims to bridge that gap by exploring the beneficial uses as well as the possible misuses of AI in education and agriculture. Okore *et al.* (2024) examined the adoption of AI tools among final-year chemistry students, emphasizing concerns about their limited expertise and familiarity with AI, which could undermine the accuracy of their research results. Oluwafemi and Adetunmbi (2022) studied lecturers' perspectives on incorporating AI into the education system, providing insights into how educators perceive the role of AI. Nwokorie and Onichakwe (2024) evaluated the impact of AI on students' academic achievements, focusing on its effects on reading behaviors, access to educational

resources, and examination outcomes. On the other hand, Elichukwu (2019) explored the application of AI in agriculture, highlighting both the benefits and challenges of its adoption, along with the potential for expert systems to boost agricultural productivity. Despite these findings, not much work has directly assessed the uses and abuses of AI tools among final-year students particularly in faculty of agriculture at the University of Benin, Edo State, hence the need for the study.

This study will be beneficial to students by providing guidance on responsible AI usage in academic work and serve as a resource for educators and policymakers in developing effective strategies for AI integration and ethical standards. The study will benefit farmers by offering valuable insights into how artificial intelligence (AI) can enhance both crop production and livestock management by optimizing farming practices through precision agriculture and smart animal husbandry techniques. The study will also assist future researchers who wish to explore AI use and misuse in educational settings.

1.5 Test of hypotheses

The hypotheses stated in the null form were tested:

H_{01}: There is no significant relationship between the socioeconomic characteristics of final students in faculty of agriculture and their use of AI tools.

H_{02}: There is no significant relationship between the socioeconomic characteristics of final students in faculty of agriculture and their abuses of AI tools.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of relevant literature regarding the uses and abuses of artificial intelligence (AI) tools among final year students in the Faculty of Agriculture. The relevant areas reviewed include artificial intelligence, AI tools, awareness of AI tools, interest in the use of AI tools, frequency of use of AI tools, purpose of use of AI tools, unethical use of AI tools, socioeconomic factors influencing the use of AI tools, and constraints limiting the use of AI tools among final year students.

2.2 Artificial Intelligence (AI)

Artificial Intelligence (AI) broadly refers to the creation of computer systems capable of executing tasks that usually require human cognitive abilities, such as reasoning, learning, problem-solving, understanding language, and perception. Russell and Norvig (2021) define AI as the development of machines that can act intelligently, adapt to new information, and perform mental functions similar to humans. Essentially, these machines are trained to make data-driven decisions, identify patterns, and enhance their performance over time without needing explicit instructions for every possible situation. AI involves the development of algorithms and models that enable computers to recognize patterns, make decisions, and improve from experience without being

explicitly programmed for every specific task. (Goodfellow, Bengio, and Courville, 2016). AI is not confined to robotics or automation; it encompasses a wide variety of systems and algorithms that emulate human intelligence. As Tegmark (2018) explains, AI systems are engineered to think and act logically to accomplish specific objectives. Recently, AI has seen extensive adoption across diverse fields such as education, healthcare, business, and agriculture.

2.2.1 Evolution and role of Artificial Intelligence (AI) in education

The evolution of Artificial Intelligence (AI) can be traced back to the 1950s, when computer scientists began developing systems capable of simulating aspects of human thinking. The term artificial intelligence was first introduced by John McCarthy in 1956 during the Dartmouth Conference, which laid the foundation for AI research and development (Haenlein and Kaplan, 2019). Since then, AI has advanced from simple rule-based systems to complex models that use deep learning, natural language processing, and data analytics. Early AI systems were rule-based and limited in functionality, but significant advancements in computing power, data storage, and machine learning have led to the development of more sophisticated AI systems capable of human-like learning and reasoning.

In education, AI began to gain traction in the 1990s with the introduction of intelligent tutoring systems. However, it was not until the 2010s that AI began to be widely adopted in higher education through tools that support learning, grading, feedback, and personalized instruction. Today, AI applications in education include virtual teaching assistants, automated essay scoring, plagiarism checkers, adaptive learning platforms, and natural language processing tools (Zawacki-Richter *et al.,* 2019). These applications help reduce the workload of educators and increase efficiency for students. Moreover, AI is playing an increasing role in promoting inclusivity and accessibility in education by offering language translation, speech-to-text, and personalized feedback (Luckin *et al.,* 2016). It enhances accessibility for diverse learners and supports educators by offering insights into student progress (Woolf, 2010). With the global shift to digital learning environments, particularly after the COVID-19 pandemic, the demand and dependence on AI tools in education have grown rapidly.

2.2.2 Relevance of Artificial Intelligence (AI) to agriculture

Artificial intelligence is also playing a significant role in transforming the agricultural sector, making it highly relevant to agricultural education. In the global agricultural landscape, AI has been applied to precision farming, automated machinery, crop health monitoring, pest and disease prediction, climate-smart farming, and yield forecasting (Kamilaris, Kartakoullis, and Prenafeta-Boldú, 2017). These advancements are shaping

a new generation of agricultural professionals who must be competent not only in traditional practices but also in technology-driven approaches. Within agricultural education, especially at the university level, AI is increasingly being used to assist students in managing academic tasks. Final-year students in the Faculty of Agriculture are typically required to conduct independent research, write technical reports, and defend academic projects. AI tools support these activities by helping students analyze data, organize literature, generate hypotheses, and structure written work. For example, tools like Grammarly assist with proofreading technical documents, while ChatGPT can aid in brainstorming ideas for research proposals or farm business plans. In addition, as agriculture becomes more digitized through smart farming technologies, students must develop digital skills that prepare them for the modern workforce. AI-based learning simulations and platforms provide practical exposure to real-life farming scenarios, data interpretation, and resource management. According to Wolfert *et al.* (2017), the use of big data and AI in agriculture is enabling more informed decision-making, which is a valuable skill set for agricultural graduates. Therefore, the relevance of AI to agricultural education lies not only in academic support but also in preparing students for careers in agri-tech, agribusiness, and data-driven farming. As these tools become more accessible, their integration into the learning processes of agricultural students particularly final-year students managing multiple academic responsibilities becomes increasingly important.

2.3 Artificial Intelligence (AI) tools

Artificial Intelligence (AI) tools are software programs or systems that employ algorithms, machine learning, and natural language processing to perform tasks that usually require human intelligence. These tasks include problem-solving, decision-making, understanding language, analyzing data, generating content, and automating repetitive processes. In educational contexts, AI tools assist students and researchers by providing personalized support, improving efficiency, and enhancing the accuracy of academic work (Malik, 2023; Khalifa, 2024). Specifically, AI tools help with tasks such as writing and editing assignments, summarizing information, checking grammar, generating ideas, detecting plagiarism, and conducting research more effectively (Ya'u, 2025; Bordalejo, 2025). According to Malik (2023), AI tools have been utilized to facilitate academic research writing in higher education.

2.3.1 Types of Artificial Intelligence (AI) tools

Artificial Intelligence (AI) tools comprise various software applications designed to aid students and researchers in academic tasks. Commonly utilized tools include:

- **ChatGPT**: Developed by OpenAI, this language model assists in generating text, brainstorming ideas, and drafting essays.

- **Grammarly**: Offers grammar and style suggestions to enhance the clarity and correctness of written work.
- **QuillBot**: A tool for paraphrasing and summarizing content, helping students rephrase sentences and improve readability.
- **Turnitin**: Detects plagiarism and ensures academic integrity by identifying unoriginal content.
- **Jasper**: An AI-powered content generator that supports the creation of essays, articles, and other written materials.
- **Research-focused AI Tools**: Zotero, Elicit, Research Rabbit, R Discovery – aid in citation management, literature reviews, and research exploration.
- **Others**: Bard (Gemini), Perplexity, Deepseek, Poe, Manus.IM, Nerd AI, Quizard AI, Alison, Vaia, Turbolearn, Studocu, Bing, and similar tools.

These tools have gained prominence in higher education due to their ability to improve efficiency, accuracy, and productivity in academic tasks (Malik, 2023; Lameras and Arnab, 2022).

2.3.2 Categories and functions of Artificial Intelligence (AI) tools

AI tools can be classified based on their main functionalities:

- **Writing and content generation Tools:** Platforms like ChatGPT and Jasper assist students in producing text, generating ideas, and structuring essays.

- **Language enhancement tools**: Grammarly and Writefull provide suggestions on grammar, punctuation, and style to improve writing quality.
- **Paraphrasing and summarization tools:** QuillBot helps reword sentences and summarize large texts, facilitating easier comprehension of academic content.
- **Plagiarism detection tools:** Turnitin identifies unoriginal content to uphold academic integrity.
- **Creative and visual tools:** Tools such as Canva AI and DALL·E support the creation of presentations, infographics, and other visual content for research projects.

These categories illustrate the diverse ways AI tools assist with academic tasks, ranging from writing and editing to research visualization (Khalifa, 2024; Ya'u, 2025).

2.3.3 Applications of Artificial Intelligence (AI) tools to academic activities

Students and researchers apply AI tools in various academic activities, including:

- **Assignments and essay writing:** For idea generation, drafting, and content editing.
- **Research and literature reviews:** Summarizing articles, organizing references, and detecting plagiarism. Reference management tools like Zotero improve the citation process (Lameras and Arnab, 2022).

- **Presentations and visual content:** Creating slides, diagrams, and infographics with AI-powered design tools.
- **Language and grammar enhancement**: Improving clarity, coherence, and overall quality of academic writing.

Overall, AI tools optimize academic workflows, making research and writing more efficient and supporting improved student learning outcomes (Malik, 2023; Bordalejo, 2025).

2.4 Socioeconomic characteristics that influence the use and abuse of Artificial Intelligence (AI) tools

The socioeconomic characteristics of students can influence how they use and potentially abuse Artificial Intelligence (AI) tools. In this study, the following characteristics were considered:

- **Age**: Age can impact technology adoption and use, with younger students often being more open to experimenting with new digital tools, while older students tend to prefer familiar technologies (Sharpe and Beetham, 2020; Staddon, 2020).
- **Sex**: Gender differences may influence access, confidence, and patterns of technology use, which can affect both the frequency and type of AI tool usage (Van Deursen and Van Dijk, 2019).

- **Marital status:** Students' marital status can indirectly affect their engagement with AI tools, as personal responsibilities may influence the time and attention available for academic work.
- **Primary device used for academic activities:** The type of device students use for their academic work, such as laptops, tablets, or smartphones, can significantly influence their engagement with AI tools. Students who use more capable devices, like laptops, are generally better able to leverage AI tools for assignments, research, and other academic tasks. In contrast, reliance on less versatile devices, such as smartphones, may limit efficiency and multitasking, potentially affecting both the frequency and depth of AI tool usage. Hence, the kind of device used for academic purposes can shape whether students utilize AI tools effectively or engage in misuse due to accessibility constraints (Scherer, Siddiq, and Teo, 2015).
- **Frequency of device use:** The regularity with which students use their devices can increase familiarity and comfort with technology, which may lead to higher usage and, in some cases, misuse of AI applications (Essel *et al.,* 2024).
- **Internet access**: Reliable access to the internet is essential for interacting with online AI tools such as ChatGPT, and limited access may hinder usage (Nouri, 2022).

- **Mode of sponsorship**: Students who are financially supported by their parents may have more resources to access AI tools and may also be at higher risk of misuse due to increased availability (Uti andAgbo, 2025), .
- **Field of study:** The field of study may influence AI tool usage depending on curriculum requirements, research intensity, and exposure to technology (Açıkgül *et al.,* 2021).
- **Internet connection quality:** The quality of internet connectivity can affect the efficiency and effectiveness of AI tool usage.
- **Mode of admission:** Students' prior academic experiences and the type of admission may influence their familiarity with technology, affecting their use and potential abuse of AI tools (Khalil and Ebner, 2020).

2.5 Awareness of Artificial Intelligence (AI) tools

Awareness can be defined as the general knowledge and understanding of a subject (Gafoor, 2012). In the context of this study, Awareness refers to students' knowledge or recognition of the existence and functionalities of AI tools available to support academic work (Malik, 2023). Being aware of AI tools is crucial because it directly affects students' decisions regarding their utilization. Studies have shown that students are aware of AI tools such as ChatGPT, Grammarly, QuillBot, Turnitin, Zotero, and Canva AI (Akuse and Aza, 2024; Ventura and Lopez, 2024). Awareness often varies

depending on academic level, field of study, and access to technology. The greater the students' awareness of AI tools and their functionalities, the more motivated and enthusiastic they become in using them for learning. This aligns with Akeaoglu and Lee (2016), who observed that students' familiarity with AI tools positively influences their engagement, motivation, and eagerness to utilize them as educational resources. Adedoyin and Soykan (2019) note that the use of AI tools in research writing varies between the United States and Nigeria, largely due to differences in educational systems, technological infrastructure, and levels of awareness. In the U.S., where technology and internet access are more widely available, AI tools are commonly incorporated into students' academic activities. The integration of AI tools into the curriculum, coupled with higher awareness, contributes to greater acceptance and usage among American students. Despite challenges that may limit the effective use of AI-assisted research tools, underutilization is primarily attributed to a lack of awareness (Idowu, 2018). When students are not sufficiently informed about the availability and benefits of AI tools, they are less likely to use them proactively (Kazemzadeh, Ritter, and Roossin, 2017). In today's society, where access to information is only a click away, students can be introduced to AI tools through multiple channels. Typically, students encounter these tools via social media, news outlets, peers, or the workplace (Kelly *et al.,* 2023). Such exposure often leads them to discover additional AI applications. Overall, a combination of formal education, media exposure, peer influence, and self-directed

exploration enhances students' awareness of AI tools, laying the groundwork for their interest and effective use in academic tasks (Akuse and Aza, 2024; Hingle and Johri, 2024).

Educational institutions play a crucial role in familiarizing students with AI tools. Workshops, seminars, and AI-focused courses incorporate these technologies into students' learning experiences, improving both awareness and competency. For instance, the "Elements of AI" online course by the University of Helsinki has been widely adopted to teach students about AI concepts and practical applications. In addition, students often gain awareness through informal digital channels such as social media, blogs, YouTube tutorials, and educational websites. Hingle and Johri (2024) found that these informal interactions foster curiosity and encourage independent learning about AI tools. Peer discussions also serve as a significant source of knowledge, as students share experiences and recommendations with one another. This social learning environment reinforces awareness and promotes the adoption of AI tools in academic work.

2.6 Interest in the Use of Artificial Intelligence (AI) tools

Interest refers to a psychological condition in which an individual shows sustained attention, curiosity, and engagement toward a particular activity, object, or concept. Within educational settings, it serves as a key motivational factor that influences students' willingness to engage with learning resources and academic tasks. Interest is also viewed as a content-specific characteristic shaped by both personal predispositions and contextual and situational influences (Renninger and Pozos-Brewer, 2015). Interest is a psychological state characterized by curiosity, focused attention, and engagement toward a particular object, activity, or concept (Renninger and Hidi, 2016). In educational psychology, interest is recognized as a motivational construct that significantly influences learners' willingness to engage with specific tasks and materials. Schiefele (1991) defines interest as a content-specific motivational characteristic composed of intrinsic feeling-related and value-related valences. This means that interest involves both emotional enjoyment and the perceived importance or value of an activity, making it a dual-faceted construct that impacts learning behavior and persistence. In the context of innovation adoption, Rogers (2003) conceptualizes interest within the Diffusion of Innovations framework as part of the persuasion stage. This stage occurs after an individual becomes aware of an innovation and actively seeks information to evaluate its potential benefits and relevance. According to Rogers (2003), this shift from passive recognition to active consideration is critical for adoption

decisions. Thus, interest serves as the bridge between knowing about a technology and deciding to integrate it into practice. In educational settings, interest plays a central role in motivating students to explore and adopt tools that enhance learning outcomes. Specifically, students' interest in AI tools reflects their motivation to use these technologies in academic tasks such as research, writing, presentations, and collaborative projects. A high level of interest is associated with deeper engagement, more frequent usage, and better integration of AI tools into academic work (Cui, 2025; Mohamed, 2024).

2.6.1 Factors influencing students' interest in Artificial Intelligence (AI) tools

1. Perceived usefulness: Students' perception of the practical benefits of AI tools significantly influences their interest. Tools that enhance efficiency in tasks such as academic writing, research support, and citation management are more likely to attract students' attention. Cui (2025) found that perceived usefulness is a strong predictor of students' intention to adopt AI tools, as learners value technologies that contribute to better performance and time savings.

2. Ease of use: The usability of AI tools is another major determinant of interest. Platforms that are intuitive and require minimal technical expertise increase students' likelihood of adoption. Mohamed (2024) highlights that students prefer AI applications that are easy to navigate, reducing cognitive and technical barriers to usage.

3. Accessibility and availability: Access to stable internet connectivity and compatible devices also shapes students' interest. Tools that are freely available online or provided through institutional subscriptions encourage engagement. Akuse and Aza (2024) noted that greater accessibility correlates with higher levels of adoption and sustained use of AI technologies.

4. Peer influence and social learning: Students often become interested in AI tools through recommendations and demonstrations by peers. Informal discussions and collaborative experiences act as social learning mechanisms that foster interest. Hingle and Johri (2024) observed that peer influence is one of the most common channels through which students discover new AI tools.

5. Academic support and institutional encouragement: Structured exposure through academic programs, seminars, and institutional initiatives can enhance interest by building confidence and competence. For example, the "Elements of AI" program by the University of Helsinki has significantly improved students' understanding and engagement with AI technologies (University of Helsinki, 2025).

6. Ethical awareness and concerns: Awareness of ethical issues such as plagiarism, data privacy, and responsible AI use can both encourage and limit interest. Students who are informed about ethical guidelines tend to adopt AI tools thoughtfully, whereas lack of awareness can lead to misuse or reluctance to engage with these technologies (Pitts, Marcus, and Motamedi, 2025).

2.7 Use and Frequency of Artificial Intelligence (AI) Tools

Use refers to the ways students engage with Artificial Intelligence (AI) tools for academic tasks such as research, writing, data analysis, and presentations. Frequency of use describes how often these engagements occur, ranging from occasional to daily reliance. In higher education research, these two dimensions have become a central focus, as they reflect not only the extent to which AI technologies are embedded in students' learning routines but also their potential impact on academic achievement (Cui, 2025; Mohamed, 2024).

Empirical evidence shows that AI tools are rapidly becoming indispensable in universities. Multiple studies confirm that students increasingly depend on AI systems, particularly generative models like ChatGPT for activities such as writing, summarization, translation, and research support. The Digital Education Council (2024) reported that 86% of university students employ AI for academic purposes, with 24% using them daily and 54% at least once per week. Similarly, the Higher Education Policy Institute and Kortext (2025) revealed that 92% of students had adopted AI-based tools, indicating both high adoption and frequent use. A study by Efriani *et al.* (2023), which surveyed 353 students at STKIP Muhammadiyah Pagaralam, found that 95.8% had used ChatGPT for assignments, referencing, and understanding course content. In

terms of frequency, 7.6% reported “always” using AI tools, 37.2% “often,” 50% “sometimes,” and fewer than 5% rarely or never. This highlights widespread adoption, even among students outside technology-related fields (Efriani *et al.,* 2023). Likewise, Said *et al.* (2024) examined AI adoption among higher education students and observed that 27.3% reported using AI tools very often, 36.4% often, 28% occasionally, and only 8.3% rarely. The study emphasized that generative AI has become integral to students’ academic practices, particularly for brainstorming and quick information retrieval. In Slovenia, Gaber and Meško (2024) surveyed 422 university students and reported that over half frequently used AI tools, while only about 2% had never used them. Notably, most students indicated that they used AI selectively, for generating drafts or clarifying concepts, while just 1% admitted to submitting unedited AI-generated work. This reflects a cautious but steady integration of AI into academic activities. Evidence from Nigeria shows similar outcomes. Adebayo *et al.* (2024) investigated pharmacy students at Afe Babalola University and reported that 88% had used AI tools, with ChatGPT being the most popular (80.2%). Frequent use of AI tools is consistently linked with greater efficiency in completing academic tasks, improved quality of outputs, and a reduction in repetitive workload (Akuse and Aza, 2024; Mohamed, 2024). These findings also suggest that the frequency of use is often tied to students’ needs for assignment support, grammar correction, and research. The frequency of AI use is shaped by several factors, including task type, accessibility, urgency of assignments,

and perceived usability. Students are more likely to repeatedly interact with AI tools when handling complex assignments, processing large amounts of information, or working under strict deadlines (Cui, 2025; Mohamed, 2024).

2.7.1 Factors influencing use and frequency of Artificial Intelligence (AI) tools

1. Task-specific demands: Tasks that are time-consuming or cognitively intensive such as data analysis, essay writing, and preparing presentations motivate higher frequency of AI use. Students often incorporate these tools into their workflow when they ease task complexity (Hingle and Johri, 2024).

2. Availability and accessibility: Reliable internet access and device compatibility strongly influence consistent use. Limited access often reduces adoption, while better connectivity encourages daily integration (Akuse and Aza, 2024).

3. Urgency and academic deadlines: Pressing deadlines and demanding projects push students toward frequent use of AI technologies, helping ensure timely submission and improved performance (Cui, 2025).

4. Ease of use: Intuitive and user-friendly tools attract repeated use. Students prefer platforms that require minimal technical effort, allowing them to concentrate on their assignments (Mohamed, 2024).

5. Perceived usefulness: Students are more likely to repeatedly use AI when they see clear academic benefits, such as productivity, better writing, or efficient research outcomes (Cui, 2025).

6. Peer influence and Social learning: Exposure through peers, classmates, or online communities shapes adoption and frequency. Social demonstrations often encourage students to test and continue using AI tools (Hingle and Johri, 2024).

7. Institutional encouragement and support: Universities that provide structured training, workshops, or AI-related courses promote frequent use. For instance, the University of Helsinki's Elements of AI program integrates tool use into formal learning (University of Helsinki, 2025).

2.7.2 Most frequently used Artificial Intelligence (AI) tools

Research indicates that certain tools dominate academic use. According to the Digital Education Council (2024), 66% of students use ChatGPT for learning purposes, 42% rely on Grammarly, and 25% use Microsoft Copilot. Other tools, such as Google Gemini and Perplexity, are frequently employed for summarization and research tasks.

2.8 Purpose of use of Artificial Intelligence (AI) tools

The adoption of Artificial Intelligence (AI) tools among students has become a critical dimension of modern higher education. For final-year students in agriculture, who face

the dual challenge of managing extensive coursework and preparing for post-graduation professional life, AI offers practical solutions to streamline learning, improve efficiency, and enhance the quality of academic outputs. AI is primarily used to save time, reduce repetitive workload, and simplify complex academic tasks, making it an indispensable support for students globally and within Nigeria (Digital Education Council, 2024; Ngonso *et al.,* 2024).

One of the most prominent purposes of AI use is assignment and project support. Students rely on AI tools for drafting, summarizing, editing, and refining assignments, particularly for sections such as abstracts, introductions, and literature reviews. Orok *et al.* (2024) reported that 82.8% of pharmacy students at Afe Babalola University used ChatGPT for academic assignments and studying, while 85.3% stated that the tool enhanced their academic performance. Similarly, agriculture students use AI to generate summaries of crop production techniques, simulate farm budgets, clarify statistical methods for research, and structure project reports effectively.

Research support and information retrieval is another crucial purpose. AI facilitates rapid synthesis of large volumes of literature, extraction of key ideas, generation of references, and organization of information, particularly for complex topics such as soil fertility, agrochemical usage, and farm management practices (Asongo, Akuse, and Aza,

2023). In this context, AI is not a replacement for research skills but a tool to enhance efficiency and understanding. AI tools also function as learning aids, helping students grasp difficult concepts and prepare for examinations. In South-East Nigeria, Nnanna-Ohuonu (2025) found that marketing students used AI to clarify complex theories and improve comprehension, which translated into better academic outcomes. Agriculture students similarly benefit when AI simplifies econometric models in production economics, genetic principles in plant breeding, or budgeting techniques in farm management.

Time management and efficiency represent further purposes of AI use. Students often rely on AI to meet strict deadlines, automate repetitive tasks such as grammar checking and reference formatting, and manage heavy workloads (Digital Education Council, 2024). This is particularly relevant for final-year agriculture students balancing practical fieldwork, research, and academic projects.

Beyond these core purposes, students also use AI for idea generation, drafting and restructuring essays, summarizing long texts, translation and paraphrasing, creating presentations, designing visual aids and infographics, improving professional writing, refining communication, aiding peer collaboration, self-assessment, note-taking, managing study schedules, exam preparation, clarifying theoretical content, improving

language skills, enhancing learning quality, and simulating real-world scenarios for applied research (Ngonso *et al.,* 2024; Orok *et al.,* 2024; Nnanna-Ohuonu, 2025; Eze *et al.,* 2024).

These uses demonstrate the multifaceted role of AI as both a cognitive and operational assistant in students' academic journeys. Students increasingly perceive AI tools not as replacements for learning but as purposeful companions that enhance comprehension, efficiency, and academic performance. Nevertheless, scholars emphasize the need for ethical and balanced use, institutional support, and curriculum integration to prevent over-reliance and preserve academic integrity. In all, AI tools serve diverse academic purposes, ranging from assignment and project support, research assistance, and learning enhancement to communication improvement, exam preparation, idea generation, and time management. For agriculture students, these purposes translate into tangible benefits such as faster research synthesis, improved writing quality, enhanced comprehension of complex concepts, and efficient management of academic tasks, making AI an integral part of modern student life.

2.9 Perceived Abuses of Artificial Intelligence (AI) tools

The integration of artificial intelligence (AI) tools in education has transformed research and learning processes, offering students faster access to information, automated

support in writing, and advanced problem-solving capabilities. Nevertheless, the rapid adoption of these tools has also led to various forms of misuse. In academic settings, abuse refers to practices that undermine independent learning, ethical engagement, and intellectual integrity. Research indicates that AI misuse manifests primarily across academic, emotional, social, and economic domains (Ngonso *et al.,* 2025; Weber-Wulff *et al.,* 2023).

1. **Academic abuse:** Among the different types of AI misuse, academic abuse is the most widely recognized. Many students excessively depend on AI tools to complete assignments, generate essays, or solve problems without critically engaging with the material, thereby impeding the development of critical thinking and problem-solving skills (Ngonso *et al.,* 2025). The direct use of AI to complete tests or examination questions represents a clear form of academic dishonesty, undermining fairness and assessment integrity (Perkins *et al.,* 2023). Students also exploit AI outputs to bypass plagiarism detection systems. Techniques such as paraphrasing or combining AI-generated and human edits have been shown to reduce the effectiveness of these detection tools (Perkins *et al.,* 2024). Another concerning behavior is avoiding independent research and reading because AI provides rapid solutions. This tendency diminishes meaningful cognitive engagement and reduces what Hua *et al.* (2023) describe

as “intellectual rigor.” Additionally, when students incorporate unverified AI-generated content into their work, factual inaccuracies are often introduced, which can compromise overall academic quality (Weber-Wulff *et al.,* 2023; FIJ, 2023).

2. Emotional abuse: The misuse of AI tools extends into the emotional sphere. Learners may experience anxiety or stress when AI platforms are inaccessible, highlighting a psychological reliance on these technologies (Lund *et al.,* 2024). Overdependence can also erode self-confidence, as students accustomed to AI support may doubt their capacity to complete tasks independently (Bjelobaba *et al.,* 2024). In more severe cases, habitual AI consultation can become a form of digital addiction, reducing reflective thinking and meaningful engagement with learning materials (Lund *et al.,* 2024).

3. Social abuse: AI misuse can negatively affect students’ social interactions. Some learners prefer conversing with AI rather than engaging with peers, which gradually weakens interpersonal skills and authentic communication (Weber-Wulff *et al.,* 2023). Others employ AI to generate responses for personal messages or to mislead friends, which undermines trust and transparency both academically and socially (Bjelobaba *et al.,* 2024).

4. Economic abuse: Financial misuse of AI tools is also a growing concern, particularly in resource-constrained contexts. Students often purchase premium AI subscriptions without fully utilizing them, or they are influenced by peer pressure to buy features that provide little educational benefit (FIJ, 2023). Such expenditures can divert limited resources from more impactful academic investments and reinforce inequalities, as students with more financial means gain advantages over their peers

2.9.1 Causes of Artificial Intelligence (AI) abuse

Several factors drive the misuse of AI tools. Academic pressure is a primary contributor, as heavy workloads and tight deadlines push students to rely on AI-generated content as a shortcut (Ngonso *et al.,* 2025). Limited AI literacy and insufficient guidance exacerbate the problem, causing students to accept outputs without question (Joseph *et al.,* 2024). Furthermore, institutional gaps, including the absence of clear policies and ethical frameworks, leave students uncertain about acceptable AI use (Nairametrics, 2025). Globally, inconsistent regulation and weak enforcement further hinder responsible integration of AI in education (Zhou *et al.,* 2023; UNESCO, 2023).

2.9.2 Consequences of Artificial Intelligence (AI) abuse

The repercussions of AI misuse affect both individuals and institutions. Individually, over-reliance on AI erodes critical skills such as research, writing, and problem-solving,

reducing students' readiness for professional environments (Bjelobaba *et al.,* 2024). Emotional dependence can weaken resilience and self-efficacy, while the incorporation of erroneous AI outputs undermines academic quality (Hua *et al.,* 2023). Institutionally, widespread misuse threatens academic integrity and diminishes confidence in educational outcomes. Nigerian educators have expressed concerns that AI dependence is lowering standards and reducing originality (Nairametrics, 2025). Globally, weak governance and the overuse of AI threaten the credibility of higher education qualifications (Zhou *et al.,* 2023; UNESCO, 2023).

2.10 Constraints in the use of Artificial Intelligence (AI) tools

Despite the growing recognition of artificial intelligence (AI) as a transformative force in higher education, its effective adoption by students remains constrained by multiple challenges. These limitations manifest in infrastructural inadequacies, gaps in digital skills, financial burdens, ethical dilemmas, and weak institutional frameworks, particularly in Nigeria and other developing contexts. The different constraints are explained below:

1. Technical constraints: One of the most persistent barriers to AI use is the inadequacy of digital infrastructure. Reliable internet connectivity, steady electricity, and access to functional devices such as laptops or smartphones are prerequisites for

AI-driven learning, yet these remain scarce in many Nigerian universities. Students, especially in rural areas, often face unstable networks, frequent power outages, and limited ICT facilities, creating a digital divide in higher education (Nwaokugha and Abiakwu, 2024). Olakounle, Abdullahi, and Olaitan (2024) observed that infrastructural gaps, particularly poor internet services and erratic electricity supply, frustrate efforts to integrate digital tools into learning. Similarly, Alex-Nmecha and Ejitagha (2024) noted that inadequate access to ICT facilities severely restricts undergraduates' ability to benefit from emerging technologies. These constraints are not unique to Nigeria. Globally, UNESCO (2023) identified infrastructural inequalities as one of the leading barriers to AI integration, while the OECD (2021) emphasized that limited connectivity and weak infrastructure widen educational disparities between urban and rural institutions.

2. Knowledge and skills constraints: Another major limitation is the lack of knowledge and skills needed to engage with AI tools effectively. Many students lack sufficient training, struggle to interpret AI-generated outputs, and are unsure which platforms best serve academic purposes. Joseph, Okechukwu, and Obilor (2024) found that lecturers' digital literacy directly influences students' competence in applying AI responsibly. In the same vein, Alex-Nmecha and Ejitagha (2024) argued that most undergraduates possess only rudimentary information literacy, limiting their ability to

critically evaluate AI outputs. This problem extends beyond Nigeria. Xie, Chu, Hwang, and Wang (2024) highlighted that even teachers lack adequate AI literacy, hindering their ability to mentor students. Misconceptions often arise, with some learners believing AI can replace traditional research and learning processes (Xie *et al.,* 2024; Zhou *et al.,* 2023). Paek and Kim (2021) stressed that targeted training programs fostering AI literacy among educators are essential for addressing both technical and ethical concerns. Further evidence shows that resistance to technological change and fears of job displacement contribute to the slow adoption of AI-assisted pedagogy (Abiyev and Ameen, 2025).

Studies also reveal that teacher preparation programs remain slow in embedding AI skills, focusing more on plagiarism concerns rather than effective integration into classroom practice (Weiner *et al.,* 2024). Scholars such as Stumbrienė *et al.* (2024), Alwaqdani (2025), and Shukla (2024) emphasize that trust, transparency, and ethical governance are foundational to sustainable AI integration. Institutions that invest in continuous professional development for teachers are more likely to overcome these challenges (Ahmad *et al.,* 2021; Gocen and Aydemir, 2020).

3. Financial constraints: Cost-related issues also restrict students' use of AI tools. High internet charges, subscription fees for premium platforms, and the cost of modern

digital devices make access difficult for undergraduates. In many cases, schools themselves are unable to afford AI-powered platforms due to budget limitations, further deepening inequities (Aminu and Ojerinde, 2024). AbdulRafiu, Makinde, Sakariyahu, and Ahmed (2024) reported that although awareness of AI tools is rising, affordability remains a central challenge, with wealthier students better positioned to access advanced features. This financial divide is also evident globally. UNESCO (2023) pointed out that commercialization through costly subscriptions restricts AI accessibility, particularly in developing countries. Similarly, OECD (2021) noted that students from disadvantaged backgrounds are disproportionately excluded from the benefits of AI, worsening educational inequality.

4. Ethical and regulatory constraints: Ethical issues also influence student engagement with AI. Concerns about plagiarism, academic dishonesty, accuracy of outputs, and excessive reliance on AI are widely reported. Ya'u and Mohammed (2024) observed that AI-assisted writing platforms can enhance literacy but simultaneously raise questions about originality and academic honesty. In Nigeria, Nairametrics (2025) highlighted growing fears among academics that dependence on AI is lowering standards and discouraging independent thinking. Globally, Zhou, Wang, and Chen (2023) underscored ethical risks such as algorithmic bias, opacity, and misuse for academic dishonesty. UNESCO (2023) similarly cautioned that without governance

frameworks, educational credibility may be undermined. Privacy concerns also persist, as many AI platforms collect and analyze student data, raising issues of data misuse (SciencePG, 2025; Xie *et al.,* 2024). Umoh (2024) further stressed that Nigeria lacks strong data protection laws to regulate how AI tools handle academic information, leaving students vulnerable.

5. Institutional and policy constraints: Finally, weak institutional and policy frameworks compound these challenges. Most Nigerian universities lack clear policies guiding AI use, leaving students uncertain about acceptable practices. Olakounle *et al.* (2024) linked this policy vacuum to the absence of structured training programs, which limits students' ability to apply AI responsibly. Internationally, similar concerns have been noted. Futurity Education (2024) reported that without coherent guidelines, teachers and students experience resistance and confusion regarding AI adoption. This highlights the urgent need for universities and governments to create policies that balance innovation with accountability.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study Area and Scope

3.1.1 Study area

The study was carried out in the Faculty of Agriculture, University of Benin which is located in Ovia North-East Local Government Area, Edo State, Nigeria. The Local Government Area falls within Longitude 5°36.009'E and Latitude 6°20.022'N. University of Benin has a population of about 77000 students.

Faculty of Agriculture is one of the fifteen serving Faculties in the University of Benin, Edo State and has a population of 1,358 students, with the final year students having a population of 218 students which was used for this study. It currently has 7 departments and they include; Department of Agricultural Economics and Extension Services, department of Animal science, Department of crop science, Department of Soil Science and Land Management, Department of Forestry and Wildlife Management, Department of Aquaculture and Fisheries Management, Department of Food Science and Nutrition. The faculty of Agriculture offers a wide range of undergraduate and post graduate programs.

The faculty is at the forefront of research in area of food security, agricultural development, and climate change, driving innovation.

3.1.2 Scope of Study

The study population consisted of all final year students in the faculty of agriculture at the University of Benin, Edo State. It focused on assessing students' awareness, interest, frequency, and purposes of AI tools usage, as well as the abuses and constraints they face in using AI tools effectively.

3.2 Sample Size and Sampling Procedures

A multi stage sampling procedure was employed in selecting the respondents for the study.

The first stage involved a stratified sampling method. The Faculty of Agriculture was stratified into 6 strata representing the number of departments in the faculty. This included; Agricultural Economics and Extension Services (AEE), Animal Science (ANS), Crop Science (CRS), Aquaculture and Fisheries Management (AFM), Forestry and Wildlife Management (FWM) and Soil and Land Management (SLM).

In stage two, a list of all the students from each of the departments were obtained from the heads of departments. A pre-survey reflected the following distribution: Agricultural Economics and Extension Services (51), Animal Science (71), Crop Science (31)), Aquaculture and Fisheries Management (26), Forestry and Wildlife Management (17) and Soil and Land Management (22). This gave a total population of 218 students for the study.

The third stage employed simple random sampling of two-thirds (67%) of the population (218 participants) which approximately gave a total of 146 respondents for the study as detailed in Table 3.1. The emphasis on using two-thirds (2/3rd) of sampling frame was derived from Foot's (2008) assertion that, "generally speaking, two-thirds of demography can explain everything". This therefore formed the basis for sample size selection criterion.

Although 146 respondents were initially sampled, only 145 questionnaires were available for analysis because one questionnaire could not be retrieved at the time of analysis. Therefore, 145 valid responses were used for the final analysis.

Table 3.1: Sampling distribution of respondents in the study area

Department	Sampling frame	Sample size (67%)
Agricultural Economics and Extension Services	51	34
Animal Science	71	48
Crop Science	31	21
Soil Science	22	15
Aquaculture and Fisheries Management	26	17
Forestry and Wildlife Management	17	11
TOTAL	**218**	**146**

Source: Field survey, 2025

3.3 Data collection

The data were collected from a primary source. The primary data were collected using structured questionnaire, designed to meet the study's objectives, and administered to the respondents.

3.4 Measurement of variables

Independent variables:

The independent variables for the study were measured as follows:

a. Socioeconomic characteristics

1. Age: the age of the respondents was measured in years

2. Sex: this was measured as either male or female and was assigned a nominal value. Male (1) or female (2)

3. Marital status: This was measured as Married(1), Single(2), Divorced(3) and Separated(4)

4. Field of study: Agricultural Economics and Extension services (1), Animal Science (2), Crop Science (3), Aquaculture and Fisheries Management (4), Forestry and Wildlife Management (5) and Soil science and Land management (6)

5. Year student gained admission: was measured in years

6. Mode of admission: Unified Tertiary Matriculation Examination (1), Direct-Entry (2), Transferred (3)

7. Mode of sponsorship: Parents /Guardian (1), Scholarship (2), Crowd funding (3) and Self-funding (4).

8. Internet Access: Yes (1), No (2)

9. Primary device for academic activities: Smartphone (1), Laptop (2), Tablet (3), Desktop (4)

10. Frequency of use of device : daily(1), weekly (2), monthly (3), 3-6months (4), annually (5), never (6).

11. Quality of internet connection: Poor (1), Fair (2), Good (3), Excellent (4)

Dependent variables

The dependent variables were:

b. Awareness of Artificial Intelligence (AI) tools among final year students

The respondents were asked to indicate whether they are aware of AI tools and by ticking specific AI tools they are aware of. This was measured using, aware (1) not aware (2)

c. Interest in the use of Artificial Intelligence (AI) tools

Respondents were asked if they are interested in using AI tools and also to indicate specific AI tools they are interested in using. This was measured using, interested (1) or not interested (2)

d. Use and frequency of Artificial Intelligence (AI) tools

Respondents were asked if they use specific AI tools and also to indicate how often they use them. The Use was measured using, used (1) or not used (2). The Frequency of use was measured using 6-point rating scale, daily (1), weekly (2), monthly (3), 3-6months (4), annually (5), never (6).

e. Purpose of use of Artificial Intelligence (AI) tools

Respondents were asked to indicate the specific purposes for which they use AI tools.

f. Perceived abuses of Artificial Intelligence (AI) tools

The respondents were asked to identify possible abuses or inappropriate uses of AI tools. This was measured using a 5-point Likert scale using Strongly agree (1), Agree (2), Neutral (3), Disagree (4), Strongly disagree (5)

g. Constraints in the use of Artificial Intelligence (AI) tools

Respondents were asked to identify severity of constraints they experience in using AI tools. This will be measured using a 5-point Likert scale of very serious (5), serious (4), undecided (3), not serious (2), not a problem (1)

3.5 Data analysis

Objective 1: To describe the socioeconomic characteristics of final-year students in the Faculty of Agriculture. This was addressed using descriptive statistics such as frequency counts and percentages

Objective 2: To identify the AI tools that that the final year students in faculty of agriculture are aware of. This was achieved using a descriptive statistics such as frequency counts and percentages.

Objective 3: To identify the interest in the use of AI tools among final year students of faculty of agriculture. This was achieved using descriptive statistics such as frequency counts and percentages.

Objective 4: To ascertain the use and frequency of use of AI tools among final year students in faculty of agriculture. This was achieved using descriptive statistics including frequency counts, percentages and mean scores.

Objective 5: To identify the purpose of use of AI tools by final year students in faculty of agriculture. This was achieved using descriptive statistics such as frequency counts and percentages.

Objective 6: To identity the abuses of Ai tools by final students in faculty of agriculture. This was achieved using descriptive statistics such as frequency counts, percentages and mean scores.

Objective 7: To examine the constraints in the use of AI tools by final year students in faculty of agriculture. This was achieved using descriptive statistics such as frequency counts, percentages and mean scores.

3.6 Test of Hypotheses

Hypothesis one

$H0_1$: There is no significant relationship between the socioeconomic characteristics of final students in faculty of agriculture and their use of AI tools.

Hypothesis two

$H0_2$: There is no significant relationship between the socioeconomic characteristics of final students in faculty of agriculture and their abuses of AI tools.

The two hypotheses were tested using the Pearson's Product Moment Correlation (PPMC).

Below is the mathematical expression of the model:

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n(\sum x^2)(n\sum y^2 - (\sum y)^2]}}$$

Where:

Y= dependent variable

X= independent variable

n= number of pair of observation

r= correlation coefficient

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

4.1 Demographic characteristics of final year students in the Faculty of Agriculture, University of Benin, Edo State, Nigeria

4.1.1 Age

The age distribution in Table 4.1 shows that most (84.1%) of the final year students fall within the age range of 21-25years, 11.7% fall within the age range of 16-20years, 3.4% fall within the age range of 26-30years while 0.7% fall within the age range of 31-30%. The mean age of the respondents was 23 years. This implies that most of the final-year students are young adults, typically in the early adulthood stage. The predominance of young adults has implications for the use of Artificial Intelligence tools. This aligns with the findings of Lin and Yu (2023), who reported that younger learners are more open to integrating digital tools into their academic routines due to ease of familiarity and lower psychological resistance. Similarly, Sharpe and Beetham (2020) reported that while older students (mature learners) do not exhibit lower confidence or willingness to learn new technologies, they tend to use fewer tools and prefer familiar ones. In contrast, younger students are more likely to experiment with a wider range of digital applications, including AI tools, reflecting their greater adaptability and engagement with emerging technologies.

4.1.2 Sex

Result in Table 4.1 shows that more than half (64.1%) of the final year students were females, while 35.9% were male. This implies that nearly majority of the final year students are female. Research indicates that gender can shape how students interact with technology in higher education. This corresponds to the findings of Vázquez‐Cano, Meneses, and García‐Garzón (2017) who reported that there's measurable differences in digital competences between male and female university students, with females often exhibiting strong organizational and structured approaches to technology use. Similarly, David‐West and Akameze (2022) reported from data collected in University of Port Harcourt, that female students in Library and Information Science in Nigeria were more consistent in their utilization of information and communication technologies (ICT) compared to their male counterparts.

4.1.3 Marital status

The result in table 4.1 shows that most (99.3%) of the final year students were single and 0.7% were married. This implies that most of the final year students were unmarried. The predominance of single students reflects the typical profile of final-year students, who are often at a stage in life where academic pursuits take priority over other personal responsibilities. Being single may allow students more time and focus to

engage with academic technologies, including AI tools, as they generally have fewer domestic or family obligations competing for their attention. This corresponds with the findings of Maseka, Kinkani, and Makuma (2024), who reported that marital status can moderate students' engagement and academic performance, with single students often able to dedicate more time to learning and technology-based educational activities.

4.1.4 Field of study

Result in Table 4.1 shows that less than half (37.9%) of the respondents were from Animal Science, 23.4% were from Agricultural Economics and Extension Services, 16.6% were from Crop Science, 8.3% were from Forestry and Wildlife Management, 7.6% were from Aquaculture and Fisheries Management, while 6.2% were from Soil Science and Land Management. This implies that less than half of the respondents were from Animal Science, although this group constituted the highest proportion in the study. The lower representation of students from Soil Science and Land Management (6.2%) and Aquaculture and Fisheries Management (7.6%) could be attributed to smaller departmental enrollment sizes or reduced student preference for these specializations. This corresponds with the findings of Thomas (2018), who reported that students' enrollment into agricultural disciplines is influenced by their perception of future job opportunities, personal interest, and the perceived value of the specialization

within the labour market. This may therefore explain why certain agricultural fields attract more students than others.

4.1.5 Mode of sponsorship

Result in Table 4.1 shows that most (93.1%) of the respondents were sponsored by their parents or guardians; 4.1% were self-funded; 2.1% used crowd funding; and only 0.7% reported being on scholarship. This implies that most final-year students rely heavily on family support to finance their education. The predominance of parental or guardian sponsorship suggests that the students have a low level of financial independence. While very few students fund their studies themselves or through alternative mechanisms such as crowdfunding or scholarships. The primacy of family support in funding students' education is highlighted by Onu (2015), who notes that parental involvement including financial support is a key factor enabling students to access academic resources and engage effectively in higher education.

Table 4.1: Demographic characteristic of final year students in the Faculty of Agriculture, University of Benin, Edo State, Nigeria

Variables	Description	Freq.	%
Age	16 – 20	17	11.7
	21 – 25	122	84.1
	26 – 30	5	3.4
	31- 35	1	0.7
Mean		**22.54**	
Sex	Male	52	35.9
	Female	93	64.1
Marital status	Married	1	0.7
	Single	144	99.3
Field of study	Agricultural Economics and Extension Services	34	23.4
	Animal Science	55	37.9
	Crop Science	24	16.6
	Aquaculture and Fisheries Management	11	7.6
	Forestry and Wildlife Management	12	8.3
	Soil Science and Land Management	9	6.2
Mode of admission	Unified Tertiary Matriculation Examination	134	92.4
	Direct-Entry	11	7.6
Mode of sponsorship	Parents/Guardian	135	93.1
	Scholarship	1	0.7
	Crowd Funding	3	2.1
	Self-funding	6	4.1
Access to Internet	No	1	0.7
	Yes	144	99.3
Primary device	Laptop	3	2.1
	Smartphone	142	97.9
Frequency of device use	Weekly	4	2.8
	Daily	141	97.2
Internet connection quality	Poor	9	6.2
	Fair	37	25.5
	Good	74	51.0
	Excellent	25	17.2

Source: Field survey, 2025

4.1.6 Mode of admission

The result in Table 4.1 shows that the most (92.4%) of respondents were admitted through the Unified Tertiary Matriculation Examination (UTME), while only 7.6% were admitted via Direct Entry. This implies that most students share a similar academic entry pathway. This corresponds with the findings of Emaikwu (2012), who reported that students admitted through standardized examinations tend to have a uniform academic foundation that supports effective engagement in university studies.

4.1.7 Access to internet

Results from Table 4.1 show that most (99.3%) of the respondents had access to the internet while 0.7% of the did not have access to the internet. This implies that most of the final year students had access to the internet. The high level of internet access among respondents has direct implications for the use of Artificial Intelligence (AI) tools in academic activities. With reliable internet connectivity, students can easily access AI-powered platforms for research and learning, supporting their academic performance and digital literacy development. This aligns with the findings of Alshammari (2023), who reported that students' access to necessary resources significantly influences their adoption of technology-enhanced learning. The high level of internet access among respondents in this study suggests that they have the resources required to engage effectively with AI tools for academic purposes.

4.1.8 Primary device used for academic activities

Result in Table 4.1 shows that the most (97.9%) of respondents primarily used smartphones for their academic activities, while only 2.1% used laptops. This implies that smartphones are the dominant device among final-year students for accessing digital resources, including learning platforms. Their portability and convenience make them well-suited for engaging with online academic content and digital tools. This corresponds with the findings of Nikolopoulou, Tsimperidis and Tsinakos (2023), who reported that smartphones were the most frequently used devices among undergraduates for academic tasks.

4.1.9 Frequency of device use

Result from Table 4.1 show that the most (97.2%) of the respondents used their devices daily for academic purposes, while only 2.8% used them on a weekly basis. This implies that most of the final year students use their devices for academic purposes daily. This high frequency of device use indicates that students consistently engage with digital tools, which can provide regular opportunities to access AI-powered applications, online learning platforms, and other digital resources. This corresponds with the findings of Ataş and Çelik (2019), who reported that university students frequently check their smartphones throughout the day and use them for several hours daily for both academic and non-academic purposes. On average, students checked their devices

28 times per day and spent approximately 5 hours daily using them. It also corresponds with the findings of Nikolopoulou, Tsimperidis and Tsinakos (2023), who reported that undergraduate students rely heavily on mobile devices, with most using them daily for their academic activities. These patterns suggest that the respondents in this study are well-positioned to engage effectively with AI technologies as part of their learning routines.

4.1.10 Internet connection quality

The result in Table 4.1 shows that slightly more than half (51.0%) of the respondents had a good internet connection, with 17.2% rating their connection as excellent, 25.5% had a fair connection, while only 6.2% reported poor quality. This implies that the more than half of the final year students have reliable access to the internet, which is essential for engaging effectively with online academic resources, and other digital platforms. Students with good or excellent connection quality are likely to experience fewer disruptions in their online activities, supporting continuous learning and the effective use of technology in their studies, than students with poorer quality connections. This corresponds with the findings of How does Internet access quality affect learning outcomes? A multiple mediation analysis among international students in China (Ren, Zhu and Liang, 2024), who found that both device access and internet stability significantly impacted students' satisfaction and performance in online learning. Their

analysis showed that unstable or low‑quality internet connections reduced interaction and adaptability in synchronous online learning contexts.

4.2 Awareness of Artificial Intelligence (AI) tools by final year students

Result in Table 4.2 shows that most (90.3%) of the students are aware of ChatGPT and majority (77.2%) of the students are aware of Meta AI. This was closely followed by Canva AI (54.5%), Deepseek (51.7%), Perplexity (33.8%), Grammarly (31.7%), QuillBot (29.7%), Bard(Gemini AI) (29.7%), Bing(21.4%), Alison (12.4%), Poe(11.7%), Elicit (10.3%), Research Rabbit (8.3%), Quizard AI (8.3%), Nerd AI (7.6%), Turbolearn (7.6%), Studocu (6.9%), Vaia (6.2%), R Discovery(6.2%), Manus.Im (4.1%). This implies that ChatGPT has become a widely recognized and commonly used AI platform for academic and personal tasks among students. It corresponds with the findings of Nnaemeka and Ogunbadejo (2024) who reported high awareness of ChatGPT (92%) among undergraduates at Nnamdi Azikiwe University, showing that ChatGPT has gained widespread recognition among students in Nigeria. It's important to note that large number of research specific AI tools (Perplexity , Research Rabbit, R Discovery, Manus I'm, Turbolearn, Studocu, Quizard AI Elicit) recorded low level of awareness This also implies that students are more exposed to general-purpose AI tools that are popular on social media and widely promoted, while awareness of academic and research-oriented AI tools remains significantly low. This is in line with the the study by Owan *et al.* (2025) found that while students generally showed interest and acceptance of AI, their actual use of AI for research was low due to limited awareness and training on research-focused AI applications. Students' awareness of AI tools shapes which tools they explore and adopt. This corresponds with

a study by Konkwo and Olubodun (2022) who found that secondary school students' awareness of agribusiness opportunities influenced their willingness to engage in agriculture. This finding is also in line with a study by Konkwo, Osagie, and Oamen (2021), who observed that awareness and adoption level of improved maize technologies were generally low among farmers, Similarly, in this study, awareness of AI tools among students appears to concentrate on a few widely publicized tools like ChatGPT and Meta AI, while awareness of other specialized tools remains minimal.

Table 4.2: Awareness of Artificial Intelligence (AI) tools by final year students

AI tools	Aware		Not aware	
	Freq.	%	Freq.	%
Chatgpt	131	90.3	14	9.7
Perplexity	49	33.8	96	66.2
Deepseek	75	51.7	70	48.3
Canva AI	79	54.5	66	45.5
Meta Ai	112	77.2	33	22.8
Grammarly	46	31.7	99	68.3
Quillbot	43	29.7	102	70.3
Bard(Gemini)	43	29.7	102	70.3
Poe	17	11.7	128	88.3
Manus. Im	6	4.1	139	95.9
Elicit	15	10.3	130	89.7
Research Rabbit	12	8.3	133	91.7
Nerd AI	11	7.6	134	92.4
R Discovery	9	6.2	136	93.8
Quizard AI	12	8.3	133	91.7
Alison	18	12.4	127	87.6
Vaia	9	6.2	136	93.8
Turbolearn	11	7.6	134	92.4
Studocu	10	6.9	135	93.1
Bing	31	21.4	114	78.6

Source: Field survey, 2025

4.3 Interest of Final Year Students in Artificial Intelligence (AI) tools

The result in Table 4.3 shows that ChatGPT recorded the highest interest, with more than half (61.4%) of the respondents indicating willingness to use it. Next were Meta AI (40.7%), DeepSeek (37.9%), Canva AI (35.2%), Perplexity (26.2%), Bard(Gemini) (20.7%), Grammarly (20.0%), Bing(15.9%), QuillBot (13.8%), Research Rabbit (13.1%), Poe (13.1%), Elicit (12.4%), Nerd AI (12.4%), Manus.Im (11.7%), Vaia (11.0%), Turbolearn (11.0%), R Discovery (10.3%), Studocu (10.3%) and Quizard AI (10.3%). With ChatGPT recording the highest interest implies that students prefer tools that are easy to use and provide immediate academic support. This aligns with the Technology Acceptance Model, which emphasizes that perceived usefulness and ease of use drive technology adoption (Davis, 1989). This also agrees with Konkwo and Olubodun (2024), who reported that secondary-school students expressed strong interest in livestock farming (71.4%) and agricultural engineering (65.9%), particularly in areas they believed offered hands-on value and future benefits, in the same way, final-year students are more drawn to AI tools that demonstrate clear usefulness and immediate results. In contrast, research-focused AI tools, including Elicit, Research Rabbit, Nerd AI, Vaia, Studocu, R Discovery, Quizard AI, Alison, and Manuscript AI, attracted very low interest, below 20%, highlighting minimal curiosity toward tools for literature review, research organization, or academic writing.

The Diffusion of Innovation Theory explains this trend, noting that adoption is faster when innovations are visible, trialable, and socially endorsed (Rogers, 2003). Since these tools are less integrated into classroom practice and peer networks, students show limited engagement with them.

Table 4.3: Interest of final year students in Artificial Intelligence (AI) tools

AI tools	Interested		Not interested	
	Freq.	**%**	**Freq.**	**%**
Chatgpt	89	61.4	56	38.6
Perplexity	38	26.2	107	73.8
Deepseek	55	37.9	90	62.1
Canva AI	51	35.2	94	64.8
Meta Ai	59	40.7	86	59.3
Grammarly	29	20.0	116	80.0
Quillbot	20	13.8	125	86.2
Bard(Gemini)	30	20.7	115	79.3
Poe	19	13.1	126	86.9
Manus. Im	17	11.7	128	88.3
Elicit	18	12.4	127	87.6
Research Rabbit	19	13.1	126	86.9
Nerd AI	18	12.4	127	87.6
R Discovery	15	10.3	130	89.7
Quizard AI	15	10.3	130	89.7
Alison	12	8.3	133	91.7
Vaia	16	11.0	129	89.0
Turbolearn	16	11.0	129	89.0
Studocu	15	10.3	130	89.7
Bing	23	15.9	122	84.1

Source: Field survey, 2025

4.4 Use and frequency of use of Artificial Intelligence (AI) tools

4.4.1 Use of Artificial Intelligence (AI) tools

Result in Table 4.4.1 shows that most (99.3%) of the final year students used ChatGPT. This was closely followed by Meta AI (66.9%),:Deepseek (62.1%), Perplexity (56.6%), Canva AI (51.0%), Grammarly (37.9%), Bard(Gemini) (30.3%), QuillBot (24.5%), Bing (15.9%), Poe (10.3%), Alison (9.0%), Elicit (7.6%), Research Rabbit (6.9%), Turbolearn (6.9%), Studocu (6.2%), Vaia (6.2%), R Discovery (6.2%), Manus.Im (6.2%), Nerd AI (5.5%) and Quizard AI (5.5%). This implies that ChatGPT is the dominant AI tool among final year students. The preference for this tool may be linked to its accessibility, ease of navigation, conversational interface, and usefulness in explaining concepts and generating study content. This aligns with the Technology Acceptance Model by Davis (1989), which posits that users are more likely to adopt digital tools when they perceive them as both useful and easy to use. The very low exposure to research‑specific AI tools in this study corresponds with findings from Ghana, where, despite 68 % general awareness of AI tools among tertiary students, only 45 % reported actual usage of such tools for academic research (Elliason, Khajuria, Monday and Kamanda, 2025).

The low usage of research-oriented tools could be as a result of students prioritizing AI tools that support immediate assignments and study needs rather than advanced research discovery features. Overall, the findings imply that while AI usage is widespread, it remains surface-level, focusing primarily on study assistance rather than on deeper research support.

Table 4.4.1: Use of Artificial Intelligence (AI) tools

	Used		Not used	
AI tools	**Freq.**	**%**	**Freq.**	**%**
Chatgpt	144	99.3	1	0.7
Perplexity	82	56.6	63	43.4
Deepseek	90	62.1	55	37.9
Canva AI	74	51.0	71	49.0
Meta Ai	97	66.9	48	33.1
Grammarly	55	37.9	90	62.1
Quillbot	35	24.5	108	75.5
Bard(Gemini)	44	30.3	101	69.7
Poe	15	10.3	130	89.7
Manus. Im	9	6.2	136	93.8
Elicit	11	7.6	134	92.4
Research Rabbit	10	6.9	135	93.1
Nerd AI	8	5.5	137	94.5
R Discovery	9	6.2	136	93.8
Quizard AI	8	5.5	137	94.5
Alison	13	9.0	132	91.0
Vaia	9	6.2	136	93.8
Turbolearn	10	6.9	135	93.1
Studocu	9	6.2	136	93.8
Bing	23	15.9	122	84.1

Source: Field survey, 2025

4.4.2 Frequency of use of Artificial Intelligence (AI) tools

Result in Table 4.4.2 shows clear differences in the frequency of AI tool usage among final year students. ChatGPT recorded the highest mean score of 4.50, indicating that it is used daily by a nearly majority (62.2%) of the respondents. It was closely followed by Meta AI ($\bar{x}$ = 2.56) which was used on monthly basis, while DeepSeek ($\bar{x}$= 2.27), Perplexity $\bar{x}$ = 1.94), and Canva AI ($\bar{x}$= 1.66) were used every 3–6 months. Grammarly ($\bar{x}$= 1.25), Bard(Gemini) ($\bar{x}$=1.07) and QuillBot ($\bar{x}$=0.78) were used annually, while Bing($\bar{x}$=0.44), Poe($\bar{x}$=0.26), Alison ($\bar{x}$=0.25), Elicit ($\bar{x}$=0.21), Manus.Im ($\bar{x}$=0.19), Research Rabbit ($\bar{x}$=0.18), Turbolearn ($\bar{x}$=0.17), R Discovery ($\bar{x}$=0.15), Nerd AI ($\bar{x}$=0.14), Vaia ($\bar{x}$=0.14), Studocu ($\bar{x}$=0.14) and Quizard AI ($\bar{x}$=0.12) which are research -specific were rarely or never used. This implies that ChatGPT is integrated into students' daily academic activities. The minimal or rare frequency of use of research-oriented AI tools, could possibly be due to limited awareness, perceived complexity, or the absence of immediate academic benefit.

Table 4.4.2: Frequency of use of AI tools

	Never		Annually		3-6 Months		Monthly		Weekly		Daily		Mean	Remarks
AI tools	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**		
Chatgpt	0	0.0	1	0.7	4	2.8	7	4.9	42	29.4	89	62.2	**4.50**	**Daily**
Perplexity	63	43.4	0	0.0	18	12.4	21	14.5	32	22.1	11	7.6	**1.94**	**3-6Months**
Deepseek	55	37.9	0	0.0	10	6.9	31	21.4	29	20.0	20	13.8	**2.27**	**3-6Months**
Canva AI	71	49.0	5	3.4	12	8.3	26	17.9	21	14.5	10	6.9	**1.66**	**3-6Months**
Meta Ai	48	33.1	1	0.7	11	7.6	28	19.3	21	14.5	36	24.8	**2.56**	**Monthly**
Grammarly	90	62.1	4	2.8	11	7.6	17	11.7	11	7.6	12	8.3	**1.25**	**Annually**
Quillbot	108	75.5	5	3.5	6	4.2	11	7.7	4	2.8	9	6.3	**0.78**	**Annually**
Bard(Gemini)	101	69.7	3	2.1	6	4.1	12	8.3	11	7.6	12	8.3	**1.07**	**Annually**
Poe	130	89.7	3	2.1	5	3.4	4	2.8	3	2.1	0	0.0	**0.26**	**Never**
Manus. Im	136	93.8	2	1.4	0	0.0	4	2.8	2	1.4	1	0.7	**0.19**	**Never**
Elicit	134	92.4	2	1.4	1	0.7	6	4.1	1	0.7	1	0.7	**0.21**	**Never**
Research Rabbit	135	93.1	2	1.4	2	1.4	4	2.8	2	1.4	0	0.0	**0.18**	**Never**
Nerd AI	137	94.5	2	1.4	1	0.7	4	2.8	1	0.7	0	0.0	**0.14**	**Never**
R Discovery	136	93.8	2	1.4	1	0.7	6	4.1	0	0.0	0	0.0	**0.15**	**Never**
Quizard AI	137	94.5	3	2.1	1	0.7	4	2.8	0	0.0	0	0.0	**0.12**	**Never**
Alison	132	91.0	3	2.1	2	1.4	4	2.8	3	2.1	1	0.7	**0.25**	**Never**
Vaia	136	93.8	3	2.1	1	0.7	5	3.4	0	0.0	0	0.0	**0.14**	**Never**
Turbolearn	135	93.1	3	2.1	1	0.7	4	2.8	2	1.4	0	0.0	**0.17**	**Never**
Studocu	136	93.8	4	2.8	0	0.0	4	2.8	1	0.7	0	0.0	**0.14**	**Never**
Bing	122	84.1	7	4.8	1	0.7	7	4.8	6	4.1	2	1.4	**0.44**	**Never**

Source: Field survey, 2025

4.5 Purpose of Use of Artificial Intelligence (AI) tools

Result on Table 4.5 shows that most (89.7%) of the students use it for writing assignments, personal learning (82.8%) and academic research and project work (82.1%). It was closely followed by editing and grammar checks (77.2%), and idea generation or brainstorming (71.0%). Other significant uses include understanding complex topics (71.0%) and summarizing lecture notes or textbooks (48.3%). Conversely, less than half of the students use them for image generation (45.5%), presentation design (37.2%), data analysis (37.2%), emotional support or casual chatting (35.2%), and entertainment activities such as music and games (15.9%). This implies that the final year students prioritize AI tools for enhancing academic productivity and learning outcomes over leisure or emotional support functions. This emphasis on utility aligns with recent empirical research demonstrating the significant role AI plays in supporting personalized learning, writing assistance, and academic research. Studies such as Granström and Oppi (2025) found that educators who use AI perceive it as highly useful for individualized instruction and fostering deeper learning engagement, confirming the vital role AI plays in academic settings. The relatively lower engagement with emotional support and entertainment uses is consistent with research indicating that educational AI users prioritize functional benefits over leisure or companionship features. Studies have pointed out that while AI can support mental health and social engagement, these are not the primary reasons students and educators adopt AI tools in educational contexts (Klimova, 2025) .

Table 4.5: Purpose of use of Artificial Intelligence (AI) tools

Purpose of use	Yes		No	
	Freq.	%	Freq.	%
Writing assignments	130	89.7	15	10.3
Editing and grammar check	112	77.2	33	22.8
Idea generation/brainstorming	103	71.0	42	29.0
Personal learning	120	82.8	25	17.2
Academic research assistance/ Project work and proposal	119	82.1	26	17.9
Image generation	66	45.5	79	54.5
Designing presentation	54	37.2	91	62.8
Entertainment (music, games)	23	15.9	122	84.1
Understanding complex topics	103	71.0	42	29.0
Data analysis	54	37.2	91	62.8
Summarizing lecture notes or textbooks.	70	48.3	75	51.7
Emotional support/casual chatting	51	35.2	94	64.8

Source: Field survey, 2025

4.6 Perceived abuses of Artificial Intelligence (AI) tools

4.6.1 Academic abuse

With respect to academic abuse (Table 4.6), the most prominent perceived abuse was using AI to answer test or exam questions ($\bar{x}$ = 3.46) ranked as 1st, followed by over-relying on AI tools for academic tasks ($\bar{x}$ = 3.44) ranked as 2nd, and using unchecked AI content that contains errors ($\bar{x}$ = 3.39) ranked as 3rd, avoiding reading/research ($\bar{x}$ = 3.27) ranked as 4th and manipulating AI to bypass plagiarism detection ($\bar{x}$= 3.17) ranked as 5th. This implies that a significant number of students rely on AI to complete assessment tasks that are meant to examine their personal understanding. This type of abuse threatens academic integrity and makes assessment outcomes unreliable. This finding corresponds with Nguyen and Goto (2024), who revealed that a substantial number of Vietnamese undergraduates reported using AI tools to complete assignments and answer examination questions, often without verifying the accuracy of the generated content. The authors classified such behaviour as a form of academic cheating and concluded that overdependence on AI systems undermines critical thinking, promotes academic dishonesty, and threatens the quality of learning outcomes.

4.6.2 Emotional abuse

The perceived emotional abuse results in Table 4.6 shows that students feel less confident without AI help ($\bar{x}$ = 3.45) ranked as 1st. Others reported feeling addicted ($\bar{x}$= 3.33) ranked 2nd and feeling anxious when AI is unavailable ($\bar{x}$= 3.24) ranked 3rd. This implies that the students now experience psychological dependence, where students' learning confidence now depends on AI tool access. This result agrees with the findings of Tarafdar, Cooper and Stich (2019) who

described this as “technostress”, where constant use of digital tools leads to stress when access is restricted.

4.6.3 Social abuse

Result in Table 4.6 shows the different perceived social abuse of AI by the students with "misleading someone using AI responses” ($\bar{x}$ = 3.19) ranked 1st, “relying on AI to respond to messages” ($\bar{x}$ = 3.13) ranked 2nd and “using AI to chat with myself instead of my friends” ($\bar{x}$ = 2.89) ranked 3rd. This implies that AI tools are being used in socially misleading ways, where AI-generated content may be shared without verification, potentially giving peers inaccurate information. This finding corresponds with Milosevic, Van Royen, and Davis (2022), who emphasized that artificial intelligence technologies can unintentionally facilitate misleading or manipulative communication, increasing users’ exposure to socially harmful behaviours such as deception, harassment, or withdrawal from genuine interpersonal relations.

4.6.4 Economic abuse

Result in Table 4.6 shows that students purchase AI tools because of peer pressure rather than actual need ($\bar{x}$=3.12), wasting money on AI upgrades that do not enhance learnings ($\bar{x}$=3.08), buying premium AI tools that you don't need or never use ($\bar{x}$=2.94), paying for AI features that are not relevant to one's academic needs ($\bar{x}$=2.66).This implies that students may buy AI subscriptions or features mainly to keep up with peers instead of for actual academic purposes. This aligns with Asi and Anaya (2024), who found that peer influence can lead students to make unnecessary purchases. Similarly, Pepe (2025) reported that university students often buy

products, including technology, to fit in with their peers, even if the purchases are not needed or financially wise.

Table 4.6: Perceived abuses of Artificial Intelligence (AI) tools

Perceived abuses of AI tools	SD		D		U		A		SA		Mean	Rank
	F	%	F	%	F	%	F	%	F	%		
Academic abuse												
Using AI to answer test or exam questions	22	15.2	22	15.2	16	11.0	38	26.2	47	32.4	3.46*	1st
Over-relying on AI tools for academic tasks	20	13.8	23	15.9	10	6.9	57	39.3	35	24.1	3.44*	2nd
Using unchecked AI content that contains errors	26	17.9	17	11.7	16	11.0	46	31.7	40	27.6	3.39*	3rd
Avoiding reading or researching because AI provides quick answers	26	17.9	22	15.2	17	11.7	47	32.4	33	22.8	3.27*	4th
Manipulating AI to bypass plagiarism detection.	28	19.4	18	12.5	29	20.1	39	27.1	30	20 .8	3.17*	5th
Emotional abuse												
Feeling less confident without AI help	26	17.9	16	11.0	12	8.3	49	33.8	42	29.0	3.45	1st
Feeling addicted to using AI tools for all academic activities	27	18.6	23	15.9	14	9.7	37	25.5	44	30.3	3.33	2nd
Feeling anxious when you cannot access AI tools	26	17.9	26	17.9	15	10.3	43	29.7	35	24.1	3.24	3rd
Social abuse												
Misleading someone using AI responses	34	23.4	22	15.2	16	11.0	28	19.3	45	31.0	3.19	1st
Relying on AI to respond to messages	31	21.5	24	16.7	16	11.1	41	28.5	32	22.2	3.13	2nd
Using AI to chat with myself instead of my friends	36	24.8	24	16.6	30	20.7	30	20.7	25	17.2	2.89	3rd
Economic abuse												
Purchasing AI tools because of peer pressure rather than actual need.	36	24.8	19	13.1	19	13.1	33	22.8	38	26.2	3.12	1st
Wasting money on AI upgrades that do not enhance learnings.	35	24.1	24	16.6	15	10.3	37	25.5	34	23.4	3.08	2nd
Buying premium AI tools that you don't need or never use.	35	24.1	28	19.3	24	16.6	26	17.9	32	22.1	2.94	3rd
Paying for AI features that are not relevant to one's academic needs.	41	28.3	36	24.8	23	15.9	21	14.5	24	16.6	2.66	4th

***Significant perceived abuse : mean ≥ 3.0**

Source: Field survey, 2025

4.7 Constraints in the use of Artificial Intelligence (AI) tools

4.7.1 Technical constraints

Result in Table 4.7 shows that the most technical challenge faced by the students in use of AI tools was poor or unreliable internet connection ($\bar{x}$=3.46) which was ranked 1st. It's was closely followed by frequent power/electricity outage ($\bar{x}$=3.08) ranked 2nd, Insufficient access to suitable devices (computer, smartphone) ($\bar{x}$=2.85) ranked 3rd and difficulty installing or accessing AI software ($\bar{x}$=2.66) ranked 4th. This implies that even though students may be willing to use AI tools, unstable internet access limits the frequency and quality of their engagement. This corresponds with the findings of Vesna *et al.* (2025), who reported that unstable internet connectivity, inadequate digital devices, and infrastructural gaps significantly limit students' ability to engage with AI-powered learning environments.

4.7.2 Knowledge/Skills constraints

Result in Table 4.7 shows that students expressed inadequate training on how to use AI ($\bar{x}$=2.85, rank=1st) as the major constraint they face in use of AI tools, this was closely followed by "no guidance on which AI tools to use for studies" ($\bar{x}$=2.82, rank=2nd), difficulty interpreting AI-generated outputs ($\bar{x}$=2.68, rank 3rd) and difficulty understanding how AI tools works ($\bar{x}$=2.64, rank=4th). This implies that although many students are interested in or even aware of AI tools, they lack the skills and knowledge needed to confidently apply them for academic work. When students lack the required knowledge (what to do) and skills (how to do it), their overall competence in using AI becomes low. This also means that many students struggle with the competence required to navigate AI tools effectively. This was highlighted in a study by Konkwo and Egbodion (2024) conducted in Edo state. Without training, students tend to

underutilize or misuse AI tools. This corresponds with Gómez-Poyato (2022), who found that low digital skills and inadequate ICT training among students restrict their ability to engage meaningfully with emerging technologies.

4.7.3 Financial constraints

With respect to financial constraints (Table 4.7), the most prominent constraint was most AI tools required paid subscription ($\bar{x}$=3.75) ranked 1st, followed by insufficient funds to buy premium AI tools ($\bar{x}$=3.63), cost of internet data is too high ($\bar{x}$=3.61), the cost of compatible devices ($\bar{x}$=3.35) ranked 2nd, 3rd and 4th respectively. This implies that financial limitations heavily restrict students' ability to access premium AI features, advanced tools, or continuous usage that requires constant data. This corresponds with the findings of Blahopoulou (2025), who noted that students frequently avoid or limit AI use due to subscription fees and the financial burden of constant internet connectivity.

4.7.4 Ethical constraints

Result in Table 4.7 shows the different ethical constraints faced by students with "belief that AI use encourages laziness"($\bar{x}$ = 3.70) ranked as 1st, followed by "fear of being penalized for using AI tools in academic work" ($\bar{x}$= 3.69) ranked 2nd, "fear of plagiarism accusations when using AI" ($\bar{x}$ = 3.62) ranked 3rd and "distrust of AI accuracy and reliability" ($\bar{x}$ = 3.58) ranked 4th. This implies that students are increasingly concerned that heavy reliance on AI may weaken personal effort, reduce independent thinking, and negatively affect learning behaviour. Ethical fears may therefore discourage students from fully adopting AI tools even when they see the benefits. This corresponds with the findings of Zhai (2024), who reported that over-reliance on AI systems can

reduce students' cognitive effort and raise concerns about academic integrity, plagiarism, and potential misuse.

Table 4.7: Constraints in the use of AI tools

CONSTRAINTS	Not a problem		Not serious		Undecided		Serious		Very Serious		Mean	Rank
	F	%	F	%	F	%	F	%	F	%		
TECHNICAL CONSTRAINT												
Poor or unreliable internet connection.	22	15.2	23	15.9	5	3.4	52	35.9	43	29.7	3.49*	1st
Frequent power/electricity outages.	31	21.4	32	22.1	12	8.3	41	28.3	29	20.0	3.03*	2nd
Difficulty installing or accessing AI software.	38	26.2	34	23.4	9	6.2	40	27.6	24	1	2.85	3rd
Insufficient access to suitable devices (computer, smartphone).	39	26.9	40	27.6	19	13.1	26	17.9	21	16.6	2.66	4th
KNOWLEDGE/SKILLS CONSTRAINTS												
Inadequate training on how to use AI tools.	35	24.1	35	24.1	14	9.7	39	26.9	22	15.2	2.85	1st
No guidance on which AI tools to use for studies	37	25.5	31	21.4	20	13.8	35	24.1	22	15.2	2.82	2nd
Difficulty interpreting AI-generated outputs	37	25.5	42	29.0	14	9.7	35	24.1	17	11.7	2.68	3rd
Difficulty understanding how AI tools work	40	27.6	41	28.3	10	6.9	39	26.9	15	10.3	2.64	4th
FINANCIAL CONSTRAINTS												
Most AI tools require paid subscription.	14	9.7	17	11.7	8	5.5	58	40.0	48	33.1	3.75*	1st
Insufficient funds to buy premium AI tools.	19	13.1	16	11.0	12	8.3	51	35.2	47	32.4	3.63*	2nd
Cost of internet data is too high	21	14.5	21	14.5	10	6.9	34	23.4	59	40.7	3.61*	3rd
The cost of compatible devices	25	17.2	23	15.9	16	11.0	38	26.2	43	29.7	3.35*	4th
ETHICAL CONSTRAINTS												
Belief that AI use encourages laziness.	14	9.7	15	10.3	15	10.3	57	39.3	44	30.3	3.70*	1st
Fear of being penalized for using AI tools in academic work.	14	9.7	20	13.8	16	11.0	42	29.0	53	36.6	3.69*	2nd
Fear of plagiarism accusation when using AI.	17	11.8	18	12.5	16	11.1	45	31.3	48	33.3	3.62*	3rd
Distrust of AI accuracy and reliability.	12	8.3	21	14.5	21	14.5	53	36.6	38	26.2	3.58*	4th

***Significant constraints: mean ≥ 3.0**

Source: Field survey, 2025

4.8 Test of hypotheses

4.8.1 Relationship between demographic characteristics of final year students and their use of Artificial Intelligence (AI) tools

The result in Table 4.8.1 shows that there was a significant and negative relationship ($r = -0.358$, $p \leq 0.000$) between age and students' use of artificial intelligence (AI) tools. This implies that the higher the age of the students, the lower their use of AI tools. This corresponds with the findings of Staddon (2020), who reported that younger students are more likely to adopt and frequently use digital technologies compared to older learners. The result in Table 4.8.1 also showed a significant and positive relationship ($r = 0.346$, $p \leq 0.000$) between students' access to the internet and their use of artificial intelligence (AI) tools. This implies that the more access students have to the internet, the more they use AI tools. This corresponds with the findings of Nouri (2022), who found that students with higher levels of internet access and ICT exposure make greater use of digital and online academic technologies. Table 4.8.1 further shows that there was a significant and positive relationship ($r = 0.374$, $p \leq 0.000$) between students' frequency of device use and their use of artificial intelligence (AI) tools. This implies that the more frequently students use their devices, the more likely they are to use AI tools. This corresponds with the findings of Limniou *et al.* (2021), who demonstrated that frequent device users are more likely to utilize digital learning tools and adopt new technologies. The remaining independent variables as sex, Marital Status, Field of Study, Mode of Admission, Mode of Sponsorship, Primary Device, Internet Connection Quality were nonsignificant in this analysis. This implied that age, access to internet and frequency of device use contributed significantly to the prediction of AI tools usage among final-year students.

Table 4.8.1 Relationship between demographic characteristics of final year students and their use of Artificial Intelligence (AI) tools

Independent variables	Correlation coefficients	P-value
Age	-0.358**	0.000
Sex	0.020	0.814
Marital status	-0.038	0.649
Field of study	-0.047	0.575
Mode of admission	-0.121	0.148
Mode of sponsorship	0.008	0.924
Access to internet	0.346**	0.000
Primary device	0.069	0.409
Frequency of device use	0.374**	0.000
Internet connection quality	0.137	0.101

Source: Field survey, 2025

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

4.8.2 Relationship between demographic characteristics of final year students and their abuse of Artificial Intelligence (AI) tools

The result in Table 4.8.2 shows that there was a significant and negative relationship ($r = -0.197$, $p \leq 0.017$) between students' age and their abuse of artificial intelligence (AI) tools. This implies that as students' age increases, the likelihood of abusing AI tools decreases, indicating that younger students are more prone to AI misuse. This corresponds with the findings of Elom *et al.* (2025), who observed that younger students are more prone to unethical AI practices such as plagiarism and academic dishonesty. The result in Table 4.8.2 shows that there was a significant and negative relationship ($r = -0.360$, $p \leq 0.000$) between students' sex and their abuse of artificial intelligence (AI) tools. This implies that students' sex does not have a meaningful influence on the abuse of AI tools. This corresponds with the findings of Peters and Olojede (2025), who reported no major gender differences in the misuse of generative AI tools among Nigerian undergraduates. The result in Table 4.8.2 shows that there was a significant and positive relationship ($r = 0.326$, $p \leq 0.000$) between students' mode of sponsorship and their abuse of artificial intelligence (AI) tools. This implies that students sponsored by their parents are more likely to have access to devices, the internet, and financial resources for AI tool subscriptions, which may increase the likelihood of AI tool abuse. This corresponds with the findings of Uti and Agbo (2025), who found that students with greater financial support were more likely to overuse or abuse AI tools due to increased access and convenience. The remaining independent variables, such as marital status, field of study, mode of admission, primary device, and internet connection quality, were non-significant in this analysis. This implies that age and mode of sponsorship contributed significantly to the prediction of students' abuse of AI tools, while sex did not have a meaningful effect.

Table 4.8.2 Relationship between demographic characteristics of final year students and their use of Artificial Intelligence (AI) tools

Independent variables	Correlation coefficients	P-value
Age	-0.197*	0.017
Sex	-0.360**	0.000
Marital status	-0.061	0.465
Field of study	0.046	0.582
Mode of admission	0.066	0.432
Mode of sponsorship	0.326**	0.000
Access to internet	-0.019	0.819
Primary device	0.040	0.633
Frequency of device use	0.089	0.288
Internet connection quality	-0.055	0.509

Source: Field survey, 2025
**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The study assessed the uses and abuses of artificial intelligence (AI) tools among final year students in Faculty of Agriculture, University of Benin, Edo State, Nigeria. Primary data for the study were obtained from final year students with the use of structured questionnaire. A total of 145 copies questionnaire used were all found relevant for the data analysis. The data collected were subjected to both descriptive and inferential statistics. The descriptive statistics used were frequency counts, percentages and mean scores as well as appropriate scores of rating scales, while the inferential statistics applied was Pearson Product Moment Correlation Coefficient.

The result of the analysis show that more than half (64.1%) of the respondents were female. The mean age of the students was 23years of age. Most (99.3%) of the students were single. The result showed that the field of study with the highest proportion (37.5%) of the participants was Animal Science. Most (93.1%) of the final year students were sponsored by their parents. Most (92.4%) of the students were admitted through the Unified Tertiary Matriculation Examination (UTME). The result showed that most(99.3%) of the final year students had access to the internet, most(97.9%) of them used smartphones as their primary device for academic activities, most(97.2%) of them used their devices on daily basis and slightly more than half of the final year students have good internet connection. The result shows that most (90.3%) of the final year students were aware of ChatGPT, with more than half (61.4%) of the students showing interest in using it(ChatGPT). Most (99.3%) of the final-year students used ChatGPT, with a mean score of 4.5 ($\bar{x}$=4.5) indicating daily usage. The result showed that most (89.7%) of the final-year

students used artificial intelligence (AI) tools for writing assignments. The result shows the perceived abuses of artificial intelligence tools by final year students, use of AI tools to answer test or examination questions ($\bar{x}$=3.46) was found to be the most significant among academic abuse, feeling less confident without use of artificial intelligence tools ($\bar{x}$=3.45) was found to be the significant among the emotional abuse, misleading someone using artificial intelligence (AI) generated responses ($\bar{x}$=3.19) was found to be the most significant among social abuse and purchasing of artificial intelligence (AI) tools because of peer pressure rather than actual use ($\bar{x}$=3.12) was found to be the most significant among economic abuse. The results show the constraints encountered in the use of artificial intelligence tools, poor or unreliable internet connection ($\bar{x}$=3.46) was found to be the most significant among technical constraints, inadequate training on how to use artificial intelligence (AI) tools ($\bar{x}$=2.85) was found to be the major constraint among knowledge and skills constraints, most artificial intelligence (AI) tools requiring paid subscription ($\bar{x}$=3.75) was found to be the most significant among financial constraints and belief that use of artificial intelligence tools encourages laziness ($\bar{x}$=3.70) was found to be the most significant among ethical constraints.

Internet access (r=0.346) and frequency of device use (r=0.374) were significant and positively related to students' use of Artificial Intelligence (AI) tools while age (r=-0.358) was significant and negatively related to students' use of artificial intelligence (AI) tools.

Mode of sponsorship (r=0.326) was significant and positively related to students' abuse of Artificial Intelligence (AI) tools while age (r=-0.197) and sex (r=-0.360) were significant and negatively related to students' abuse of Artificial Intelligence (AI) tools.

5.2 Conclusion

Based on the findings, the study concluded that most (90.7%) final-year students were aware of ChatGPT, 61.4% expressed interest in using it, and the majority (99.3%) were already using it, with a mean score of 4 indicating daily usage. The study further showed that most (89.7%) of the students used AI tools primarily for writing assignments. The study also showed that AI tools were abused academically, emotionally, socially, and economically, with "using AI tools to answer test or examination questions" ($\bar{x}$= 3.46) identified as the major form of abuse. Additionally, the study showed that the requirement for paid subscriptions for most AI tools ($\bar{x}$ = 3.75) was the major constraint encountered by final-year students in their use of AI tools.

5.3 Recommendations

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

1. The Faculty should organize workshops and seminars specific to each department to increase students' awareness and interest in research-specific AI tools beyond ChatGPT.
2. Students should be sensitized on the responsible use of AI tools to prevent ethical issues such as laziness or over-reliance.
3. The departments within the Faculty of Agriculture should enforce academic integrity policies to discourage the use of AI tools for answering tests and examinations.
4. The Faculty of Agriculture should collaborate with AI tool developers to provide subsidized or institutional access to premium AI platforms.
5. AI literacy modules should be integrated into the Faculty's curriculum to equip students with the necessary skills for research and academic work.

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RESEARCH QUESTIONNAIRE
DEPARTMENT OF AGRICULTURAL ECONOMICS AND EXTENSION SERVICES
FACULTY OF AGRICULTURE
UNIVERSITY OF BENIN

Dear Respondent,

I am a final year student of the above named Department conducting a research project titled "**Uses and Abuses of Artificial Intelligence Tools Among Final Year Students in the Faculty of Agriculture, University of Benin**." I hereby solicit your assistance by responding to the questions below accurately. Your objectivity and honesty in providing answers/information will be highly appreciated. All information given will be kept strictly confidential and only used for the purpose of this study

Thank you very much for your cooperation.

Monica Daberechi NWEKE (Miss)

Instruction: This questionnaire is for academic purposes only. All responses will be treated confidentially. Please tick (✓) the option that best represents your response.

SECTION A: Socioeconomic Characteristics

1. Age: _____ years

2. Sex: (a) Male [ ] (b) Female [ ]

3. Marital Status: (a) Married [ ] (b) Single [ ] (c) Divorced [ ] (d) Separated [ ]

4. Field of study: (a) Agricultural Economics and Extension Services [ ] (b) Animal Science [ ]

(c)Crop Science [ ] (d)Aquaculture and Fisheries Management [ ] (e)Forestry and Wildlife Management [ ]

(f)Soil Science and Land Management [ ]

5. Year of admission: _____

6. Mode of admission: (a) Unified Tertiary Matriculation Examination [ ] (b) Direct-Entry [ ]

(c) Transferred [ ] (d) Others(Please specify):_____

7. Mode of sponsorship: (a) Parents/Guardian [ ] (b) Scholarship [ ] (c) Crowd Funding [ ] (d) Self-funding [ ]

(e) Others:_____(Please specify)

8. Do you have access to the Internet?

(a)Yes [ ] (b) No [ ]

9. Primary device used for academic work: (a) Smartphone [ ] (b) Laptop [ ] (c) Tablet [ ]

(d) Desktop [ ] (e) No device [ ] (f) Others (specify): _____

10. How frequently do you use your device(s)? (a)Daily [ ] (b) Weekly [ ] (c) Monthly [ ]

(d) 3-6months [ ] (e) Annually [ ] (f) Never[ ]

11. How would you rate your internet connection quality? (a)Poor [ ] (b) Fair [ ] (c)Good [ ]

(d) Excellent [ ]

SECTIONS B and C: Awareness and Interest in AI Tools

12. Are you aware of AI tools? (a) Aware [ ] (b) Not aware [ ]
13. Are you interested in using AI tools? (a)Interested [ ] (b) Not interested [ ]
14. Which of the following AI tools are you aware of and interested in using?

S/N	AI TOOLS	**Awareness**	Interest
		Please tick	Please tick
1.	Chatgpt		
2.	Perplexity		
3.	Deepseek		
4.	Canva AI		
5.	Meta Ai		
6.	Grammarly		
7.	Quillbot		
8.	Bard(Gemini)		
9.	Poe		
10.	Manus. Im		
11.	Elicit		
12.	Research Rabbit		
13.	Nerd AI		
14.	R Discovery		
15.	Quizard AI		
16.	Alison		
17.	Vaia		
18.	Turbolearn		
19.	Studocu		
20.	Bing		
11	Others (Specify):		

15. How did you first learn about AI tools?
(a)Friends [ ](b)Classmates [ ] (c) Lecturer [ ](d)Social Media (e.g., TikTok, Instagram) [ ] (e)YouTube [ ] (f)Online Courses [ ] Others (specify): _____

SECTION D: Use and Frequency of AI Tools

16. Do you use AI tools? (a)Uses [ ] (b)Not Used [ ]

17. Which of the following AI tools do you use and how frequently do you use them?

		AI TOOLS	FREQUENCY OF USE					
S/N	AI TOOLS	USED	Daily	Weekly	Monthly	3-6Months	Annually	Never
1.	Chatgpt							
2.	Perplexity							
3.	Deepseek							
4.	Canva AI							
5.	Meta Ai							
6.	Grammarly							
7.	Quillbot							
8.	Bard(Gemini)							
9.	Poe							
10.	Manus.im							
11.	Elicit							
12.	Research Rabbit							
13.	Nerd AI							
14.	R Discovery							
15.	Quizard AI							
16.	Alison							
17.	Vaia							
18.	Turbolearn							
19.	Studocu							
20	Bing							

SECTION E: Purpose of Use of AI Tools

18. For what purposes do you use AI tools? (Tick all that apply)

S/N	PURPOSE OF USE	Please tick
1.	Writing assignments	
2.	Editing and grammar check	
3.	Idea generation/brainstorming	
4..	Personal learning	
5.	Academic research assistance/ Project work and proposal	
6.	Image generation	
7.	Designing presentation	
8.	Entertainment (music, games)	
9.	Understanding complex topics	
10.	Data analysis	
11.	Summarizing lecture notes or textbooks.	
12.	Emotional support/casual chatting	
13.	Others (Specify):	

SECTION F: Abuses of AI Tools

19. Which of the following do you consider abuses or inappropriate uses of AI tools? (Tick all that apply).

SD=strongly disagree, D=disagree, U=undecided, A=agree, SA=strongly agree

S/N	Abuses of AI tools	SD	D	U	A	SA
A	**ACADEMIC ABUSE**					
1.	Over-relying on AI tools for academic tasks					
2.	Using AI to answer test or exam questions					
3.	Manipulating AI to bypass plagiarism detection.					
4.	Avoiding reading or researching because AI provides quick answers					
5.	Using unchecked AI content that contains errors.					
B	**EMOTIONAL ABUSE**					
1.	Feeling anxious when you cannot access AI tools					
2.	Feeling less confident without AI help					
3.	Feeling addicted to using AI tools for all academic activities					
C	**SOCIAL ABUSE**					
1.	Using AI to chat with myself instead of my friends					
2.	Relying on AI to respond to messages					
3.	Misleading someone using AI responses					
D	**ECONOMIC ABUSE**					
1.	Buying premium AI tools that you don't need or never use.					
2.	Paying for AI features that are not relevant to one's academic needs.					
3.	Purchasing AI tools because of peer pressure rather than actual need.					
4.	Wasting money on AI upgrades that do not enhance learnings.					

SECTION G: Constraints in the Use of AI Tools

20. Which of the following hinders you from using AI tools? (Tick all that apply)

Very Serious = VS, Serious = S, Undecided = U, Not Serious = NS, Not a Problem = NP

S/N	Constraints in use of AI tools	VS	S	U	NS	NP
A	**TECHNICAL CONSTRAINTS**					
1.	Poor or unreliable internet connection					
2.	Insufficient access to suitable devices (computer, smartphone)					
3.	Frequent power/electricity outages					
4.	Difficulty installing or accessing AI software					
B	**KNOWLEDGE/SKILLS CONSTRAINTS**					
1.	Inadequate training on how to use AI tools					
2.	Difficulty understanding how AI tools work					
3.	No guidance on which AI tools to use for studies					
4.	Difficulty interpreting AI-generated outputs					
C	**FINANCIAL CONSTRAINTS**					
1.	Cost of internet data is too high					
2.	Most AI tools require paid subscriptions					
3.	The cost of compatible devices					
4.	Insufficient funds to buy premium AI tools					
D	**ETHICAL CONSTRAINTS**					
1.	Fear of plagiarism accusations when using AI					
2.	Distrust of AI accuracy and reliability					
3.	Belief that AI use encourages laziness					
4.	Fear of being penalized for using AI tools in academic work					