



## EXPLORING THE AWARENESS AND APPLICATION OF ARTIFICIAL INTELLIGENCE IN BUSINESS EDUCATION AMONG TERTIARY INSTITUTION STUDENTS IN LAGOS STATE

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### Abstract

*The rapid advancement of Artificial Intelligence has significantly impacted the business sector, underscoring the necessity for its integration into business education. This study explored the awareness and application of Artificial Intelligence in Business Education among tertiary institution students in Lagos State. The study adopted descriptive research. The sample size of 200 undergraduate business education students in the faculty of education at Lagos States Universities. A structured questionnaire was used to collect data and data obtained were analyzed using descriptive statistics. The findings reveal varying levels of Artificial Intelligence awareness, with many students demonstrating a rudimentary understanding of its potential, while practical application in academic settings remains limited. It was also revealed that awareness and application are attributed to factors such as limited access to Artificial Intelligence resources, insufficient curriculum content on Artificial Intelligence, and a lack of practical training. The clustered means are 4.24, 4.33 and 4.36. This study concluded that students' ability to explore digital resources such as Artificial Intelligence depends on their level of awareness, application, and access to digital technologies. It was also recommended that since students are aware of technologies and use them daily then they should be equipped with Artificial intelligence power for the developmental stages. It was recommended that workshops, seminars, and guest lectures should be organized by Artificial Intelligence experts to raise awareness among students about the latest developments in Artificial Intelligence and its relevance to business education.*

**Keywords:** Artificial Intelligence, Business Education, Awareness, Application, Artificial Intelligence Tools



## Introduction

In envisioning future jobs and human resources specialists' requirements, teachers must equip students with a proficiency that makes them adaptable to challenges. Teachers significantly contribute to society by educating generations of upcoming students who will become future entrepreneurs. Tan (2020) opined that the teacher exerts a triple role, being a content expert and creator, a knowledge spreader, and "an ethical-spiritual guide" with wisdom. The students should be able to chase trends and not just stay current with the events and environment (Elhajjar, Karam, and Borna, 2021). Hence, the demand for innovative teachers embracing change, integrating new materials, and enabling student artificial intelligence interactions in education is increasing.

Artificial Intelligence augments human skills in the workplace (Nuseir, Basheer, and Aljumah, 2020) and serves as an educational partner, enhancing content and competencies (Tan, 2020). Elhajjar, Karam, and Borna (2021) advocated integrating Artificial Intelligence into education to equip students with skills essential for future jobs and digital society's demands, such as innovation, creativity, and design thinking. Artificial intelligence in Education employs diverse tools, techniques, and systems in educational activities (McGrath et al., 2023). Investing in human capital to embrace Artificial Intelligence in Education tools is vital for societal development, despite widespread distrust and misconceptions about Artificial Intelligence's role in human activities, especially in education (Antonenko and Abramowitz, 2023).

Artificial Intelligence technology in education is expected to grow significantly in the coming decades, presenting new opportunities and challenges (Ouyang & Jiao, 2021; Zhang & Aslan, 2021; Khosravi, 2022). Researchers, policymakers, and practitioners are integrating Artificial intelligence in Education to enhance teaching, personalized learning, assessments, and administrative services (Zhang and Aslan, 2021; Chiu et al., 2023). AI represents progress in education, offering benefits on multiple levels, and stimulates the evolution of teaching and learning through technologies like chatbots, robots, automated assessment, digitized artifacts, and intelligent tutoring systems, despite occasional organizational challenges (Chiu et al., 2023).

The demand for adaptive digital learning with Artificial intelligence support has surged in the past decade, driven by challenges like the COVID-19 pandemic and social conflicts in contemporary societies (Matzavela and Alepis, 2021). Online and blended learning are now prevalent in modern communities and emerging economies as they strive to integrate these methods into the educational system. Artificial Intelligence in Education provides feasible solutions to complex societal problems, enabling students to engage closely with global challenges and develop real-life problem-solving skills (Southworth et al., 2023).

Artificial Intelligence (AI) is rapidly transforming various sectors, including education, where it has the potential to revolutionize teaching, learning, and administrative processes. In business education, Artificial Intelligence's application is increasingly recognized as a crucial component for preparing students to meet the demands of a technology-driven workforce. The integration of Artificial Intelligence into business education encompasses a range of tools and systems, from intelligent tutoring systems and personalized learning environments to predictive analytics and decision-making support systems (Zawacki-Richter et al., 2019).

Despite the significant potential of Artificial Intelligence in enhancing educational outcomes, the level of awareness and application of Artificial Intelligence in business education varies widely among students in tertiary institutions. Understanding students' awareness of Artificial Intelligence and its practical application in their academic environment is essential for educators and policymakers to design curricula that not only incorporate cutting-edge technology but also align with the skills required in the modern business landscape. This study aims to explore the extent to which students in tertiary institutions are aware of Artificial Intelligence and how they



perceive its application in their business education. Additionally, the research will examine the factors influencing the adoption of Artificial Intelligence technologies in educational settings, with a particular focus on the challenges and opportunities that arise from this integration.

Business education, traditionally focused on imparting knowledge about management, finance, marketing, and entrepreneurship, now increasingly includes Artificial Intelligence as a core component of its curriculum. The awareness and application of Artificial Intelligence in business education are essential for preparing students to meet the demands of a technology-driven global economy. Students must not only understand the theoretical underpinnings of Artificial Intelligence but also develop the practical skills needed to apply Artificial Intelligence tools and techniques in real-world business scenarios.

Despite the growing importance of Artificial Intelligence, there remains a gap in understanding its full potential and application in business education among tertiary institution students. This gap underscores the need for increased awareness and a more structured approach to integrating Artificial Intelligence into business education. By exploring the current state of awareness and the extent to which Artificial Intelligence is applied in business education, this research aims to provide insights that can inform educational strategies and curriculum development, ensuring that students are well-equipped for the future workforce.

### **Statement of the Problem**

The rapid advancement of Artificial Intelligence technologies has the potential to revolutionize various sectors, including education. However, the extent to which students in tertiary institutions, particularly those pursuing business education, are aware of and can apply Artificial Intelligence in their studies and future careers remains unclear. Despite the increasing integration of Artificial Intelligence tools in business practices, there is limited research on how well these technologies are understood and utilized by students. This knowledge gap is concerning because the effectiveness of Artificial Intelligence integration in business education largely depends on the student's ability to understand and apply these technologies. Therefore, this study seeks to explore the level of awareness and application of Artificial Intelligence among students in business education programs at tertiary institutions. By identifying the current state of knowledge and practical application, the study aims to provide insights that can guide curriculum development and educational strategies to better prepare students for the evolving business landscape. The lack of adequate exposure and training in Artificial Intelligence within business curricula may lead to ill-equipped graduates to leverage Artificial Intelligence tools and technologies in their careers, potentially limiting their competitiveness in the job market. Additionally, there is a need to understand the factors contributing to this awareness gap, such as curriculum design, access to resources, and faculty expertise.

### **Objectives of the Study**

The main objective of the study was to explore the awareness and application of Artificial Intelligence in Business Education among tertiary institution students in Lagos State. The specific objectives were to:

- (i) assess the level of awareness of Artificial Intelligence (AI) among tertiary institution students in business education programs.
- (ii) explore extent that students apply Artificial Intelligence knowledge in practical business scenarios during their education.
- (iii) examine students' perceptions of the relevance of Artificial Intelligence in their business education and future careers.



### **Research Questions**

The following research questions were raised to guide the study:

- (i) What is the current level of awareness among tertiary institution students about artificial intelligence in business?
- (ii) To what extent do students apply Artificial Intelligence knowledge in practical business scenarios during their education?
- (iii) What are students' perceptions of the relevance of Artificial Intelligence in their business education and future careers?

### **Literature Review**

#### **Artificial Intelligence**

The concept of Artificial Intelligence (AI) has been around for centuries, with the earliest recorded ideas dating back to ancient Greek mythology. However, the modern field of Artificial Intelligence emerged in the 1950s, when computer scientists and researchers began exploring the possibility of creating machines that could think, learn, and solve problems like humans.

One of the pioneering figures in the field of Artificial Intelligence was Alan Turing, a British mathematician and computer scientist, who in 1950 proposed the Turing test, a method for determining whether a machine can exhibit intelligent behavior indistinguishable from a human. This sparked a wave of research and development in Artificial Intelligence, with scientists and researchers working to create machines that could perform tasks such as playing chess, solving mathematical problems, and understanding natural language.

Over the decades, the field of Artificial Intelligence has evolved significantly, with the development of various techniques and technologies, such as machine learning, deep learning, and natural language processing. The 1980s and 1990s saw a surge in the popularity of expert systems, which were designed to mimic the decision-making process of human experts. In the 2000s, the rise of big data and powerful computing resources paved the way for the development of more advanced Artificial Intelligence systems, leading to breakthroughs in areas like computer vision, speech recognition, and autonomous vehicles.

Artificial Intelligence (AI) refers to the development of computer systems or machines that can perform tasks that typically require human intelligence. These tasks include problem-solving, learning, reasoning, and understanding language (Russell & Norvig, 2021). Artificial Intelligence systems utilize algorithms and large datasets to recognize patterns, make decisions, and improve their performance over time. The primary goal of Artificial Intelligence is to create intelligent agents capable of autonomously performing tasks like humans (Goodfellow et al., 2016).

Artificial intelligence (AI) is the theory and development of computer systems capable of performing tasks that historically required human intelligence, such as recognizing speech, making decisions, and identifying patterns. Artificial Intelligence is an umbrella term that encompasses a wide variety of technologies, including [machine learning](#), [deep learning](#), and [natural language processing \(NLP\)](#).

Although the term is commonly used to describe a range of different technologies in use today, many disagree on whether these constitute artificial intelligence. Instead, some argue that much of the technology used in the real world today constitutes highly advanced machine learning that is simply a first step towards true artificial intelligence, or "general artificial intelligence" (GAI).

#### **Artificial Intelligence in Education**

Artificial Intelligence (AI) in Education is rapidly transforming teaching and learning. Artificial Intelligence technology encompasses a variety of tools, such as machine learning, natural language processing, and intelligent tutoring systems (ITS), that are designed to improve



educational outcomes. Personalized learning, which is one of the key areas of Artificial Intelligence in education, allows for the customization of content according to individual student needs, learning styles, and progress (Luckin et al., 2016). AI-driven systems analyze student data to adapt and recommend learning materials, promoting more effective and engaging learning experiences. Intelligent tutoring systems (ITS) further enhance personalized learning by providing real-time feedback and guidance, functioning similarly to human tutors. These systems are capable of adjusting instruction based on student performance, ensuring mastery of the subject matter (VanLehn, 2011). Additionally, Artificial Intelligence supports educators by automating routine administrative tasks such as grading and student tracking, thereby freeing up time for more personalized teaching (Gibson & Webb, 2013).

Another significant contribution of Artificial Intelligence is in educational accessibility. AI-powered tools, such as speech recognition and text-to-speech systems, assist students with disabilities, enabling them to engage with educational content in ways that were previously unavailable (Tegmark, 2017). This technology plays a crucial role in promoting inclusive education for all learners.

Moreover, Artificial Intelligence can provide data analytics that helps institutions make informed decisions about student performance and future learning strategies. These analytics enable the identification of at-risk students, leading to timely interventions that can improve retention and success rates (Baker & Yacef, 2009).

#### **Artificial Intelligence in Business Education**

Artificial Intelligence's integration into business education brings significant enhancements, especially in adaptive learning, personalized instruction, and data-driven insights (Luckin et al., 2016). Adaptive learning platforms powered by Artificial Intelligence allow students to progress at their own pace, adjusting the complexity and content of educational materials based on individual learning styles and needs. These systems can analyze student data and provide customized feedback, helping both students and instructors identify strengths and areas for improvement (Holmes et al., 2019).

Business education, with its focus on problem-solving, strategic decision-making, and data analysis, greatly benefits from AI-driven tools. Davenport and Ronanki (2018) suggest that Artificial Intelligence applications, such as predictive analytics and intelligent tutoring systems, are increasingly incorporated into the curriculum to foster practical skills. For instance, Artificial Intelligence can be used to simulate business environments, allowing students to apply theoretical knowledge in real-world scenarios. Artificial Intelligence-driven simulations in financial forecasting, supply chain management, and customer relationship management (CRM) have become key components of modern business programs.

Artificial Intelligence (AI) is transforming the landscape of business education by providing innovative tools that enhance teaching and learning. AI-powered systems are being used to personalize learning experiences, support business decision-making, and equip students with the necessary skills to navigate a data-driven economy. According to Davenport and Ronanki (2018), Artificial Intelligence applications such as predictive analytics and intelligent tutoring systems are helping to optimize both the learning process and educational outcomes, making business education more adaptive and relevant in the modern world.

Artificial Intelligence (AI) refers to the simulation of human intelligence in machines that are designed to think and act like humans. In the context of business education, Artificial Intelligence is increasingly being integrated to enhance the learning process, support personalized education, and develop students' skills for the evolving digital economy. The application of Artificial Intelligence



in education includes adaptive learning systems, intelligent tutoring, and data-driven insights to improve both teaching and learning outcomes (Marr, 2020).

One significant area of focus is how Artificial Intelligence can assist in business decision-making, data analysis, and automation, which are core competencies in business education. According to research by Brynjolfsson & McAfee (2017), Artificial Intelligence is reshaping industries, and as a result, business schools are incorporating Artificial Intelligence-related topics in their curriculum to prepare students for future job markets. Business education students are increasingly expected to understand Artificial Intelligence concepts, machine learning, and how these tools can be applied in real-world business scenarios.

The rise of Artificial Intelligence in industries has prompted educational institutions to integrate AI-related courses in business education. As Brynjolfsson and McAfee (2017) highlight, understanding Artificial Intelligence and machine learning is becoming an essential competency for future business leaders. Business students are now required to engage with Artificial Intelligence topics such as automation, natural language processing, and data-driven decision-making processes. Courses increasingly focus on equipping students with the ability to apply AI technologies in areas like marketing, finance, and operations (Agrawal, Gans, & Goldfarb, 2018).

### **The Importance of Artificial Intelligence Awareness Among Students**

Artificial Intelligence awareness is crucial for students as it prepares them for the evolving job market and equips them with the knowledge and skills necessary to navigate a technology-driven world. In higher education, students are increasingly expected to engage with Artificial Intelligence concepts and tools. According to Suen (2018), students in fields like business, engineering, and computer science are particularly exposed to Artificial Intelligence topics due to the growing relevance of automation, data analytics, and machine learning in these areas.

Developing Artificial Intelligence awareness goes beyond just understanding the theoretical aspects; it includes recognizing how Artificial Intelligence is used in real-world applications. For instance, in business education, students must be aware of how AI drives innovations in customer service, financial management, and supply chain optimization (Davenport & Ronanki, 2018). In this context, awareness includes familiarity with Artificial Intelligence AI-powered systems such as predictive analytics, natural language processing, and machine learning algorithms.

### **Factors Influencing Artificial Intelligence Awareness**

Several factors influence students' awareness of Artificial Intelligence, including access to technology, educational resources, and institutional support. According to Holmes et al. (2019), students from institutions with strong technological infrastructure and support systems are more likely to be aware of and engage with Artificial Intelligence tools. Furthermore, students who have access to AI-related courses or extracurricular activities, such as coding clubs or Artificial Intelligence workshops, tend to have a deeper understanding of Artificial Intelligence and its potential applications.

Exposure to media and popular culture also plays a role in shaping AI awareness. Many students' first exposure to Artificial Intelligence comes through movies, social media, or news outlets, which often portray Artificial Intelligence in a dramatic or dystopian light (Suen, 2018). While these representations can spark interest, they may also create misconceptions about Artificial Intelligence's capabilities and limitations. Educational institutions have a role to play in clarifying these misconceptions and providing a balanced view of Artificial Intelligence.

### **Application of Artificial Intelligence in Academic Activities**

The application of Artificial Intelligence (AI) in academic activities is a growing area of interest that is reshaping the education landscape. Artificial Intelligence technologies, such as machine



learning, natural language processing, and neural networks, have introduced innovative ways of enhancing teaching, learning, and administrative processes in educational institutions.

### **1. Personalized Learning**

Artificial Intelligence has facilitated personalized learning experiences, which cater to the individual needs of students. Intelligent tutoring systems (ITS) use Artificial Intelligence algorithms to adapt instructional content to the pace and learning style of each student. These systems provide real-time feedback, identify knowledge gaps, and adjust teaching methods accordingly (Latham & Ringrose, 2022). For example, platforms like Coursera and Duolingo utilize Artificial Intelligence to track user progress and offer tailored exercises to improve learning outcomes.

### **2. Automated Grading and Assessment**

Artificial Intelligence-powered systems have made it possible to automate grading processes, particularly for objective-type assessments like multiple-choice questions, true/false, and short-answer formats. More advanced Artificial Intelligence models are also being developed to assess essays and written assignments using natural language processing (NLP) technologies. Automated grading reduces the workload for educators and provides students with immediate feedback on their performance, enhancing their learning experience (Woolf, 2020). Furthermore, Artificial Intelligence grading tools are helping institutions maintain grading consistency and objectivity.

### **3. Artificial Intelligence-Assisted Administrative Tasks**

Artificial Intelligence applications are also increasingly used to streamline administrative processes in academic institutions. For instance, chatbots and virtual assistants, such as IBM Watson or Microsoft's Cortana, are employed to handle student queries, assist in course registration, and provide reminders for important academic activities. These Artificial Intelligence systems can operate 24/7, offering students continuous support and enhancing the efficiency of academic institutions (Barber & Hill, 2019).

### **4. Enhancing Research and Data Analysis**

Artificial Intelligence plays a crucial role in assisting academic researchers by providing advanced data analysis capabilities. Machine learning algorithms can sift through large volumes of academic papers and data, identifying patterns, trends, and correlations more efficiently than traditional methods (Perkowitz & Etzioni, 2021). Artificial Intelligence also facilitates the discovery of relevant literature, enabling researchers to conduct comprehensive reviews in a shorter amount of time, thus accelerating the research process.

### **5. Support for Students with Disabilities**

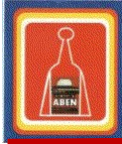
Artificial Intelligence technologies offer solutions that support students with disabilities, promoting inclusivity in academic activities. For example, speech-to-text software powered by Artificial Intelligence helps students with hearing impairments, while Artificial Intelligence-driven screen readers aid visually impaired students in accessing digital content. Additionally, Artificial Intelligence systems can offer real-time translations, making academic materials accessible to non-native speakers (Dillenbourg et al., 2018).

### **Challenges in the Adoption of Artificial Intelligence in Business Education**

Artificial Intelligence (AI) has the potential to transform education, but its adoption comes with several challenges. Below is an overview of these challenges, based on various studies and perspectives.

#### **1. Lack of Infrastructure**

One of the significant barriers to adopting AI in education is the lack of appropriate infrastructure. Many educational institutions, especially in developing countries, lack the necessary technological resources, such as high-speed internet, advanced computing devices, and software systems



required to deploy Artificial Intelligence solutions effectively. This digital divide can exacerbate educational inequalities (Mitra, 2020).

#### 2. **Cost of Implementation**

Implementing AI-driven technologies in education is often associated with high costs. The acquisition of Artificial Intelligence tools, software, and necessary infrastructure can be prohibitively expensive for many institutions, particularly those in lower-income regions (Rodriguez, 2021). Besides, the maintenance and upgrading of Artificial Intelligence systems require continuous financial investments, making it difficult for underfunded institutions to keep up.

#### 3. **Teacher Resistance and Lack of Training**

The successful integration of Artificial Intelligence into education relies heavily on educators being willing and able to use these technologies. However, many teachers may resist adopting Artificial Intelligence due to fears of job displacement or the perception that Artificial Intelligence tools might undermine their traditional teaching roles. Additionally, many educators lack adequate training in Artificial Intelligence and related technologies, which further hampers adoption (Zawacki-Richter et al., 2019).

#### 4. **Ethical and Privacy Concerns**

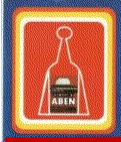
The use of Artificial Intelligence in education raises numerous ethical concerns. Artificial Intelligence systems often collect large amounts of personal data from students, which can lead to privacy issues if not properly managed. There are also concerns about the fairness and transparency of Artificial Intelligence algorithms, particularly regarding biases that may arise in AI-driven assessments (Luckin et al., 2016). Ensuring ethical Artificial Intelligence use in education requires strict policies and guidelines, which many institutions have yet to fully develop.

#### 5. **Curriculum Adaptation and Alignment**

For Artificial Intelligence to be effectively adopted, educational curricula must be adapted to integrate Artificial Intelligence concepts and tools. This can be challenging due to rigid, outdated curricula that do not easily accommodate rapid technological changes. Furthermore, aligning Artificial Intelligence applications with specific learning goals and pedagogy requires thoughtful design, and in many cases, there is a disconnect between Artificial Intelligence developers and educational practitioners (Selwyn, 2019).

### **Methodology**

The study used a descriptive survey design. The population for this study was 200 business education students at the Lagos State University, Ojo. The sample size for the study was two hundred (200) Business Education and the sampling technique was total enumeration due to the size of the population. The data for this study were collected through the use of a structured questionnaire developed by the researchers from the review of related literature. The instrument for data collection was subjected to face and content validity by experts in Business Education. The reliability test was done using Alpha at 0.78 and the instrument was considered valid for the study. The researchers used Google form to collect data from the target respondents of the study. The data was collected were analyzed using descriptive statistics to answer research questions.



**Results**

**Table 1: What is the current level of awareness among tertiary institution students about artificial intelligence in business?**

S/N	Items	Means	SD	Remark
1.	I am aware of what Artificial Intelligence is.	3.90	1.449	Moderate
2.	I have come across Artificial Intelligence concepts in my academic courses.	3.80	1.135	Moderate
3.	I understand how Artificial Intelligence impacts business operations.	4.30	0.823	High
4.	I know Artificial Intelligence is being used in various sectors of the economy.	4.60	0.516	High
5.	I have read articles and research on artificial intelligence in business.	4.40	0.516	High
6.	Artificial Intelligence is regularly discussed in my lectures or academic materials.	3.80	1.135	Moderate
7.	I can differentiate between Artificial Intelligence and other emerging technologies.	4.60	0.516	High
8.	I am aware of artificial intelligence tools used for business data analysis.	4.40	0.516	High
9.	I understand the ethical implications of Artificial Intelligence in business.	4.90	0.517	High
10.	I have been introduced to Artificial Intelligence in my business education program.	4.10	0.517	High
11.	I am aware of Artificial Intelligence technologies like chatbots and virtual assistants.	3.90	1.449	Moderate
12.	I understand the potential of Artificial Intelligence in transforming business education.	4.20	0.823	High
<b>Clustered Mean</b>		<b>4.24</b>		High

Source: Field Survey, 2024

Table 1 revealed the responses to items 1-12, the mean ratings as well as the standard deviation. The mean ratings of items ranged from 3.80 to 4.90 which implied that there are high levels of awareness in the use of Artificial Intelligence among tertiary institution students and its applications in business it is above 4.24. The standard deviation of the items ranged from 0.516 to 1.449. The clustered mean of 4.24 implied that the respondents are generally aware of Artificial Intelligence and its application in their various academic activities

**Table 2: To what extent do students apply Artificial Intelligence knowledge in practical business scenarios during their education?**

S/N	Items	Means	SD	Remarks
1.	I have used artificial intelligence tools and platforms in my academic work.	3.90	1.449	Moderate Extent
2.	I know how to apply artificial intelligence technologies to solve business-related problems.	3.80	1.135	Moderate Extent
3.	Artificial Intelligence tools are commonly used in my course for research or assignments.	4.30	0.823	High Extent
4.	I have used Artificial Intelligence for tasks like data collection and analysis.	4.60	0.516	High Extent



5	I have been taught how to use Artificial Intelligence to improve business processes.	4.40	0.516	High Extent
6.	I can use Artificial intelligence-powered software for market analysis.	4.70	0.516	High Extent
7.	Artificial Intelligence has improved my understanding of complex business concepts.	4.25	0.823	High Extent
8.	Artificial Intelligence applications are integrated into our business education curriculum.	4.25	0.823	High Extent
9.	I use Artificial Intelligence for personalized learning in my studies.	4.40	0.516	High Extent
10.	Artificial Intelligence tools have made learning more engaging and interactive.	4.70	0.516	High Extent
	<b>Clustered Mean</b>	<b>4.33</b>		High Extent

Source: Field Survey, 2024

Table 2 revealed the responses to items 1-10, the mean ratings as well as the standard deviation. The mean ratings of items ranged from 3.80 to 4.70 which implied students at various levels do apply Artificial Intelligence to improve their academic performance, making learning more engaging and interactive and understanding more complex business concepts this is above 4.33. The standard deviation of the items ranged from 0.516 to 1.449. The clustered mean of 4.33 implied that the respondents generally apply the use of Artificial Intelligence to solve their academic issues and find solutions to business concepts.

**Table 3: What are students' perceptions of the relevance of Artificial Intelligence in their business education and future careers?**

S/N	Items	Means	SD	Remarks
1.	Business education is essential in developing my career prospects.	3.90	1.449	Agreed
2	I believe Artificial Intelligence will shape the future of business education.	3.80	1.135	Agreed
3	Artificial Intelligence knowledge is crucial for business professionals.	4.30	0.823	Agreed
4	Artificial Intelligence should be a compulsory part of the business education curriculum.	4.60	0.516	Agreed
5	Business education students need to be proficient in Artificial Intelligence applications.	4.40	0.516	Agreed
6	I am confident in applying Artificial Intelligence in business contexts.	4.70	0.516	Agreed
7	Business educators need more training in Artificial Intelligence to teach effectively.	4.40	0.516	Agreed
8	Artificial Intelligence will enhance my ability to innovate in business education.	4.80	0.516	Agreed
	<b>Clustered Mean</b>	<b>4.36</b>		Agreed

Source: Field Survey, 2024

Table 3 revealed the responses to items 1-8, the mean ratings as well as the standard deviation. The mean ratings of items ranged from 3.80 to 4.80 which implies students believe that Artificial Intelligence is very relevant and important in business education and their future careers it is above



6.21. The standard deviation of the items ranged from 0.516 to 1.449. The grand mean of 6.21 implied that the students generally Artificial Intelligence is crucial to the business education programme and business development.

### **Discussion**

Findings of research question one revealed that there are high levels of awareness in the use of Artificial Intelligence among tertiary institution students and its applications in business. This implied that the respondents are generally aware of Artificial Intelligence and its application in their various academic activities. This aligns with findings from previous studies. For instance, Adedeji and Ibrahim (2022) examined the level of AI awareness among Nigerian university students and found that over 80% of respondents had a clear understanding of AI's role in various fields, including education and business. Similarly, Ogunleye et al. (2021) reported that students in tertiary institutions showed high levels of awareness and engagement with AI tools, particularly in enhancing their learning experiences and business acumen. These studies support the notion that AI awareness is prevalent among students in higher education, reflecting its growing integration into academic and business activities. According to Adedeji and Ibrahim (2022), the widespread use of AI technologies, such as virtual assistants and machine learning algorithms in educational tools, has contributed significantly to this awareness. Moreover, Ogunleye et al. (2021) highlighted that the integration of AI in business education curricula has further facilitated students' exposure to and understanding of AI's practical applications, particularly in business management and data analytics.

The findings of research question two indicated that students at various levels do apply Artificial Intelligence to improve their academic performance, making learning more engaging and interactive and understanding more complex business concepts. It implied that the respondents generally apply the use of Artificial Intelligence to solve their academic issues and find solutions to business concepts. The findings of research question two revealed that students across various academic levels actively apply Artificial Intelligence (AI) to improve their academic performance, with an average score above 4.33. This suggests that students are not only aware of AI but also effectively using it to make learning more engaging, interactive, and to comprehend complex business concepts. This finding aligns with previous studies. For instance, Oladipo and Salami (2023) examined the impact of AI tools on students' academic performance and found that AI technologies, such as adaptive learning systems and AI-powered tutoring platforms, significantly enhanced students' understanding of difficult subjects, particularly in business education. Their study reported that students using AI applications demonstrated better problem-solving skills and improved grades compared to those relying solely on traditional methods.

In a similar vein, Bello and Adebayo (2022) explored the use of AI in helping business students understand complex concepts such as data analytics and market forecasting. Their findings indicated that AI-enabled tools, such as predictive modeling software and virtual simulations, allowed students to visualize and interact with abstract concepts, thereby improving comprehension and practical application. These results mirror the findings of the current study, suggesting that AI is a valuable tool in enhancing academic performance and understanding in higher education, particularly in business-related fields.

The findings of research question three revealed that students believe Artificial Intelligence (AI) is highly relevant and crucial to their business education and future careers. This suggests that students recognize the transformative potential of AI in business education and its role in shaping the business landscape. This aligns with findings from previous studies. For example, Adekunle and Olawale (2022) explored the perceptions of AI among business education students in Nigerian universities and found that the majority of students viewed AI as essential for business development



and innovation. The study highlighted that students who were exposed to AI applications during their studies demonstrated a greater understanding of modern business operations and were better equipped for the demands of the evolving job market. Similarly, Ogundele and Afolabi (2021) examined the role of AI in preparing business students for the future workforce. Their research concluded that AI skills are increasingly regarded as indispensable for career success, particularly in industries such as finance, marketing, and data analytics. Students who incorporated AI tools into their academic projects showed higher levels of confidence in their ability to apply AI in real-world business scenarios. These findings reflect the current study's results, reinforcing the idea that AI is perceived as critical for the development of business education and future career prospects.

### Conclusion

This study investigated the awareness and application of artificial intelligence (AI) among business education students in tertiary institutions. The findings reveal a moderate level of awareness regarding Artificial Intelligence technologies and their applications within the context of business education. Students demonstrated a basic understanding of Artificial Intelligence concepts but showed varied levels of practical application in their coursework and future career aspirations. The results underscore the need for enhanced integration of Artificial Intelligence-related content into business education curricula to better prepare students for the evolving demands of the workforce. Educational institutions should consider implementing more comprehensive Artificial Intelligence training and resources to bridge the gap between theoretical knowledge and practical application. Future research could further explore the impact of such interventions on students' preparedness and engagement with Artificial Intelligence technologies in business contexts.

### Recommendations

- i. Organize workshops, seminars, and guest lectures by Artificial Intelligence experts to raise awareness among students about the latest developments in Artificial Intelligence and its relevance to business education.
- ii. Since students are aware of technologies and use them daily then they should be equipped with Artificial intelligence power for the developmental stages.
- iii. Business education programs should integrate Artificial Intelligence fundamentals into their curriculum.
- iv. Offer training and professional development opportunities for faculty members to stay updated on Artificial Intelligence advancements and effective teaching methods.
- v. Collaborate with businesses to offer students opportunities to work on real-world Artificial Intelligence projects, which can enhance their practical experience and understanding of Artificial Intelligence applications.

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