

Artificial Intelligence and Employability Skills Acquisitions among Graduates of Accounting Education in North West Nigeria

Uzuagu, Anthonia Uju (Ph.D)¹ & Chukwu, Chibugo Happiness (Ph.D)²

¹⁻²Department of Business Education,

¹University of Nigeria, Nsukka.

²Federal College of Education (Tech) Bichi, Kano State

¹Anthonia.uzuagu@unn.edu.ng ²chibugochukwu579@gmail.com

Abstract

The purpose of this research was to determine the influence of artificial intelligence on acquisitions of employability skills among accounting education graduates in North-West Nigeria. To achieve this objective, two (2) research questions guided the study while two (2) null hypotheses were tested at .05 level of significance. Descriptive survey design was adopted for this study. Two Thousand and fifty (2050) graduates of accounting education who are undergoing postgraduate studies at the various universities in North-West Nigeria made up the population for the study. A sample size of 213 accounting education graduates was selected through a simple proportionate random sampling technique for the study. The researcher developed structured questionnaire titled "Artificial Intelligence and Employability Skills Acquisition Questionnaire (AIESAQ)" was used to solicit responses from the subjects. Three experts face-validated the questionnaire. Cronbach alpha reliability method was used to determine the reliability of the questionnaire and a reliability coefficient of .89 which was deemed high to be used for this study was obtained. Mean with standard deviation was used to answer the research questions while t-test was used to test the null hypotheses at .05 level of significance. The study found that artificial intelligence has high influence on both the acquisitions of employability skills of e-marketing skills and programming skills. It was recommended among others that graduates of accounting education should acquire more digital skills for artificial intelligence to enhance their employability.

Keywords: Artificial intelligence, Employability, Skills, Acquisitions and Accounting education

Introduction

One of the emerging technologies that has greatly shaped the employability skills acquisitions among graduates in Nigeria is the artificial intelligent. Artificial intelligence is a software that possess intelligence to solve diverse and complex problems. It is a programmed software and hardware that is programmed to reason, act upon, and behave above the capacity of human endeavor. According to Bryan (2017), artificial intelligence provides more insight in problem solving more than any application. Dern (2019) defined artificial intelligence as a machine that is programmed to perform more cognitive functions than a human could do. Also, Ola (2022) opined that artificial intelligence is an intelligence programmed into a software/hardware device.

According to Johnson (2022), artificial intelligence has been utilized in solving more complex educational problems than ever. In addition, Osifo (2021) noted that artificial intelligence is compilation of one or more software and hardware devices that possess higher intelligence than any human could do. It can be found in any electronic devices that can churn out output in computed format. Similarly, James and Elon (2017) saw artificial intelligence as a computer-controlled robotics that is designed to reason, learn and acts in ways that would require human intelligence or that involves data whose scales exceed that of human capacity. Accordingly, Ben (2021) defined artificial intelligence as a mobile based application that is utilized in solving complex intellectual programmes and more elaborate than search engines.

Artificial intelligence, according to Agbo (2021), is the simulation of human intelligence processes by machines, especially computer systems. Artificial intelligence (AI) technology allows computers and machines to simulate human intelligence and problem-solving tasks. The ideal characteristic of artificial intelligence is its ability to rationalize and take action to achieve a specific goal. AI research began in the 1950s and was used in the 1960s by the United States Department of Defense when it trained computers to mimic human reasoning, the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings.

The term is frequently applied to the project of developing systems endowed with the intellectual processes characteristic of humans, such as the ability to reason, discover meaning, generalize, or learn from past experience. Since the development of the digital computer in the 1940s, it has been demonstrated that computers can be programmed to carry out very complex tasks such as discovering proofs for mathematical theorems or playing chess- with great proficiency. However, despite continuing advances in computer processing speed and memory capacity, there are yet no programs that can match full human flexibility over wider domains or in tasks requiring much everyday knowledge. On the other hand, some programs have attained the performance levels of human experts and professionals in performing certain specific tasks, so that artificial intelligence in this limited sense is found in applications as diverse as medical diagnosis, computer search engines, voice or handwriting recognition, and chatbots. Specific applications of AI include expert systems, natural language processing, speech recognition and machine vision. As the hype around AI has accelerated, vendors have been scrambling to promote how their products and services use it. Often, what they

Commented [H1]: Delete as

refer to as AI is simply a component of the technology, such as machine learning.

AI requires a foundation of specialized hardware and software for writing and training machine learning algorithms. No single programming language is synonymous with AI, but Python, R, Java, C++ and Julia have features popular with AI developers. In general, AI systems work by ingesting large amounts of labeled training data, analyzing the data for correlations and patterns, and using these patterns to make predictions about future states. In this way, a chatbot that is fed examples of text can learn to generate lifelike exchanges with people, or an image recognition tool can learn to identify and describe objects in images by reviewing millions of examples. New, rapidly improving generative AI techniques can create realistic text, images, music and other media.

AI programming focuses on developing cognitive skills that enable machines to perform tasks intelligently. One of the core aspects is learning, which involves acquiring data and creating rules known as algorithms that transform raw data into actionable information. These algorithms provide computing systems with step-by-step instructions for completing specific tasks. Another critical component is reasoning, which entails selecting the most appropriate algorithm to achieve a desired outcome. AI programming also emphasizes self-correction, where systems are designed to continually fine-tune their algorithms to ensure they produce the most accurate and reliable results. Lastly, creativity plays a significant role in AI, using neural networks, rule-based systems, statistical methods, and other advanced techniques to generate new images, texts, music, and innovative ideas. AI is important for its potential to change how we live, work and play. It has been effectively used in business to automate tasks done by humans, including customer service work, lead generation, fraud detection and quality

control. In a number of areas, AI can perform tasks much better than humans. Particularly when it comes to repetitive, detail-oriented tasks, such as analyzing large numbers of legal documents to ensure relevant fields are filled in properly, AI tools often complete jobs quickly and with relatively few errors. Because of the massive data sets it can process; AI can also give enterprises insights into their operations they might not have been aware of. The rapidly expanding population of generative AI tools will be important in fields ranging from education and marketing to product design.

Indeed, advances in AI techniques have not only helped fuel an explosion in efficiency, but opened the door to entirely new business opportunities for some larger enterprises. Prior to the current wave of AI, it would have been hard to imagine using computer software to connect riders to taxis, but Uber has become a Fortune 500 company by doing just that. AI has become central to many of today's largest and most successful companies, including Alphabet, Apple, Microsoft and Meta, where AI technologies are used to improve operations and outpace competitors. At Alphabet subsidiary Google, for example, AI is central to its search engine, Waymo's self-driving cars and Google Brain, which invented the transformer neural network architecture that underpins the recent breakthroughs in natural language processing. Artificial intelligence commonly brought to mind the implementation of robots. As technology evolved, previous benchmarks that define artificial intelligence became outdated. Technologies that enable Artificial Intelligence include: Computer vision enables computers to identify objects and people in pictures and photos, natural language processing (NLP) allows computers to understand human language. Graphical processing units are computer chips that help computers form graphics and images through mathematical

calculations. The Internet of Things is the network of physical devices, vehicles, and other objects embedded with sensors, software, and network connectivity, that collect and share data. Application programming allows two or more computer programs or components to communicate with each other.

Narrow AI: Also known as Weak AI, this system is designed to carry out one particular job. Weak AI systems include video games like personal assistants like Amazon's Alexa and Apple's Siri. Users ask the assistant a question, and it answers it for you.

General AI: This type includes strong artificial intelligence systems that carry on the tasks considered to be human-like. They tend to be more complex and complicated and can be found in applications like self-driving cars or hospital operating rooms. Artificial intelligence can be utilized in advancing entrepreneurship development among graduates.

The term Entrepreneur has its origins in the French root word "entreprendre". The German called it "unternehmen" which means undertake (Johnson, 2019). A common definition by the Oxford University Press an entrepreneur is someone who undertakes the responsibility of organisation or task managing it and assumes responsibilities of all associated risks that relates to the task. The early 18th century French economist Richard Cantillon (2019) introduced the term entrepreneurship and have it defined as agent who by through production activities at a given prevailing price convert input to a new product. Entrepreneurship acts as an agent for self-employment of any sort; hence the entrepreneur is the risk bearer.

The Entrepreneur is an agent of economic growth in the society, to understand the attitudes and motivations in entrepreneurship, a survey conducted by

Amway Global Entrepreneurship Report [AGER] (2013) covering 2006 respondents in 24 countries, indicated that entrepreneurship possesses a continued high reputation as 70% of the respondents demonstrated a positive attitude towards entrepreneurial involvement, while 39% dreamt of becoming self-employed. Yet, the gap between potential entrepreneurs-people that have a latent preparedness to embrace an entrepreneurial opportunity-an actual entrepreneur is still large (AGER, 2013). Entrepreneurship acts as an impetus to economic growth. Entrepreneurs identify an opportunity or new idea and develop it into a new venture or project (Jonathan; 2021). Entrepreneurship is a risk oriented and tasking job that requires knowledge, skills and intuition to perform its duties. Entrepreneurship generates value through its activities, producing financial, social, or emotional outcomes. Over time, scholars and researchers from diverse fields such as management, anthropology, sociology, psychology, technology, and economics have explored the concept from different perspectives, offering various interpretations and theoretical frameworks to explain this complex and evolving phenomenon. This evolving understanding of entrepreneurship has highlighted the need for individuals, not only to create value but also to possess a broad set of competencies that enable them to function effectively in dynamic and uncertain environments. As such, attention has shifted toward equipping graduates with employability skills that support both entrepreneurial and professional success.

Employability skills refer to transferable competencies such as critical thinking, communication, teamwork, adaptability, and digital literacy that enable individuals to gain and sustain employment and perform effectively in the workplace (Jackson & Bridgstock, 2021). AI tools and systems not only automate routine

accounting tasks but also create opportunities for skill development through intelligent tutoring, personalized learning, and task simulations (Dwivedi et al., 2021). As such, AI serves as both a disruptor and an enabler, displacing traditional roles while equipping learners with advanced digital competencies needed for modern employability (Zawacki-Richter et al., 2020).

Research has also shown that gender factors influence the extent to which students acquire AI-related skills. For instance, Adebayo and Yusuf (2023) found that male undergraduate students tend to adopt digital marketing technologies faster than their female counterparts due to higher exposure and confidence in technology use. Adeola, Fatoki, and Salisu (2022) emphasized that targeted strategies such as inclusive curriculum design and mentorship programs are essential to close the gender gap in ICT education. Similarly, Bello and Umar (2024) reported that while AI integration in higher education offers marketing and data analytics opportunities, female students often face barriers in access and utilization. Chukwu and Eze (2023) further highlighted that early ICT exposure plays a critical role in shaping digital literacy, with disparities emerging along gender lines from basic education. Musa and Abubakar (2024) linked these differences to socio-cultural norms that influence female participation in AI-enhanced learning, while Oladipo and James (2022) demonstrated that AI-assisted programming platforms can encourage female engagement if designed with inclusivity in mind. Additionally, Oyeniran, Bello, and Yakubu (2024) noted that AI integration in programming education significantly boosts skills development, but its benefits are maximized when training addresses both gendered access and skill-building needs.

Taken together, these findings highlight that AI not only transforms the skill requirements for employability but also

intersects with socio-cultural and gender-related factors that can either facilitate or hinder skills acquisition. For graduates of accounting education in North West Nigeria, where both technological adoption and gender disparities present unique challenges, understanding how AI contributes to employability skills acquisition is essential. This background establishes the need for a systematic investigation into the role of AI in equipping both male and female graduates with the competencies required to thrive in the 21st century.

Statement of the Problem

Over the years Nigeria has experienced an upsurge in graduate unemployment occasioned by the economic recession witnessed between 2017 to the second quarter of 2018, the economic downturn triggered several corporate collapses and the few surviving firms resorted to massive job cuts and downsizing which inevitably threw several youths into the labour market. Although graduate unemployment has become a global scourge, its adverse economic impact is more felt in developing economies like Nigeria with a huge young population within the working age bracket of 16 - 45 who can't seem to find gainful employment to eke out a respectable livelihood. Studies on enhancing student employability co-ordination team (ESECT) indicated that the global economic depression substantially impacted negatively on graduate employability.

Higher institutions found themselves under pressure and intense competition to produce graduates who can think outside the box and create jobs; hence there was the need to focus on instilling hands-on practical job skills into their students that will make them job creators rather than job seekers. In the same vein industries and governments have continued to lend their voices to the philosophy that the undergraduate curricula should be completely overhauled to incorporate the development of hand-on

practical skills and innovative capacity relevant to creating solutions to societal problems. Employers of labour are in dire need of graduates with enterprising skills-sets and creative capacity to innovate, network and effectively manage relationships. It has been observed that astronomical rise in the unemployment rate amongst Nigerian graduates is as a result of the defective curricula of the universities and other tertiary institutions focused on training for white-collar jobs.

In a bid to correct this anomaly, the Federal Government of Nigeria, in conjunction with the Ministry of Commerce, Industry and Investment, inaugurated a programme tagged “University Entrepreneurship Development Programme” (UNEDEP), whose objective was to promote self-employment among the youth right from institutions of higher learning. It also had the support of the Federal Ministry of Education and the Small and Medium Enterprise Development Agency (SMEDAN) in implementing the UNEDEP project to enhance and re-orient the values of undergraduates, provide a mentoring platform for students, and reduce poverty and youth unemployment. However, despite these interventions, graduate unemployment persists, signaling the need for innovative, technology-driven solutions. Artificial Intelligence (AI), with its capacity to automate tasks, analyse market trends, enhance digital marketing, support business innovation, and develop programming competencies, offers a powerful tool for equipping graduates with 21st-century employability skills. Integrating AI-driven skill acquisition into accounting education could bridge the gap between academic training and labour market demands, empowering graduates to thrive as both job creators and competitive job seekers in a rapidly evolving digital economy.

Purpose of the Study

The general purpose of this study was to determine the extent of influence of artificial intelligence on employability skills acquisition among university graduates of accounting education in North-West, Nigeria. Specifically, this study determined the influence of;

1. Artificial intelligence on e-marketing skills acquisitions among graduates of accounting education in North-West Nigeria.
2. Artificial intelligence on programming skills acquisition among graduates of accounting education in North-West Nigeria.

Research Questions

The following research questions guided the study:

1. To what extent does artificial intelligence influence e-marketing skills acquisition among graduates of accounting education in North-West Nigeria?
2. To what extent does artificial intelligence influence programming skills acquisition among graduates of accounting education in North-West Nigeria?

Hypotheses

The following null hypotheses were tested at .05 level of significance:

1. There is no significant difference between the mean responses of male and female graduates of Accounting Education on the influence of artificial intelligence on e-marketing skills acquisition in North-West, Nigeria.
2. There is no significant difference between the mean responses of male and female graduates of Accounting Education on the influence of artificial intelligence on programming skills acquisition in North-West, Nigeria.

Methodology

The study was conducted in North-West Nigeria. The descriptive survey design was used for the study. This is because the researcher determined the characteristics of the respondents through a structured questionnaire. The population consisted of 2050 graduates of accounting education in the North-West Nigeria undergoing postgraduate studies in various universities in the North-West region of Nigeria (sources: Post graduate schools of the various universities, 2024). A sample size of 213 graduates of accounting education were selected through a simple random sampling technique. The 213 graduates were determined through Taro Yameni formular.

The instrument for data collection was a structured questionnaire titled *Artificial Intelligence and Employability Skills Acquisition Questionnaire (AIESAQ)*. The questionnaire comprised two sections: Section A elicited demographic information of the respondents and Section B contained items measuring the influence of artificial intelligence on employability skills acquisition in terms of e-marketing and programming skills (4 items each). In total, the questionnaire had eight (8) items. The items in Sections B were designed on a five-point Likert rating scale of *Very High Extent (5)*, *High Extent (4)*, *Moderate Extent (3)*, *Low Extent (2)*, and *Very Low Extent (1)*, allowing respondents to indicate the extent to which each statement applied to them. The questionnaire was face-validated by three experts, two from department of Business Education and one from test and measurement unit in department of Psychological Foundation Education, University of Uyo. They were given initial draft of the instrument for the determination of its comprehensiveness, relevance of

contents, appropriateness of directives, clarity of statements, ambiguity, possible errors as well as omissions. The experts' suggestions, inputs and criticism were incorporated into the final draft of the study. The instrument was administered to graduates of Business Education from universities in South East Nigeria who were not part of the study in order to validate the questionnaire and ensure that the items were clear, relevant, and free from ambiguity before the main data collection. Cronbach alpha reliability method used to determine the internal consistency and stability of the research instrument. Cronbach alpha was used for computations and an r value of .89 which was high enough to be used for the study was achieved.

The researcher was assisted by three research assistants who were briefed by the researcher to collect data from the respondents. The researcher collected data from the Ahmadu Bello University, Zaria, while the research assistants collected data from the other universities in North-West, Nigeria. Mean and standard deviation were used to analyse and answer the research questions while t-test was used to test the null hypotheses at .05 level of significance. In answering the research questions, a mean cut-off points of 3.00 was used as the decision benchmark. Specifically, any item with a mean score of 3.00 and above was interpreted as indicating a high extent of agreement while any mean score below 3.00 was interpreted as indicating a low extent.

Result

Research Question 1: To what extent does artificial intelligence influence e-marketing skills acquisitions among graduates of accounting education in North-West, Nigeria?

Table 1: Mean and standard deviation ratings on the influence of artificial intelligence on e-marketing skills N=213

| S/N | Items | X. | SD. | Remarks |
|-----|--------------------------------------|-------|-------|-------------|
| 1. | AI are used for creating online ads. | 3.44. | 2.10. | High Extent |

| | | | | |
|----|---|-------------|-------------|-------------|
| 2. | AI are used for products display features. | 3.55. | 1.09. | High Extent |
| 3. | AI helps to create market awareness on social media. | 4.01. | 2.00. | High Extent |
| 4. | Ai helps to reach wider audience through various media. | 4.21. | 1.88. | High Extent |
| | Grand Mean | 3.80 | 1.54 | High Extent |

The data analysis in Table 1 shows that the mean and standard deviation ratings on the influence of artificial intelligence (AI) on e-marketing skills acquisition among graduates of Accounting Education in North-West Nigeria. All four items had mean scores above the 3.00 cut-off, indicating a high extent of AI influence. The grand mean of 3.80 confirms this overall high extent. The relatively higher standard deviation values on some items indicate that respondents'

opinions varied considerably, suggesting differences in individual exposure to or use of AI tools, whereas lower SD values reflect greater agreement among respondents.

Research Question 2: To what extent does artificial intelligence influence programming skills acquisitions among graduates of accounting education in North-West, Nigeria?

Table 2: Mean and standard deviation rating on the influence of artificial intelligence on programming skills acquisitions among graduates of accounting education. N=213

| S/N | Statements | X. | SD. | Remarks |
|-----|---|-------------|-------------|--------------------|
| 1. | Artificial intelligence is a significant tool for learning programming languages by providing intelligent tutoring systems, interactive coding environments, and automated error detection that guide learners step-by-step | 3.21. | 1.04. | High Extent |
| 2. | Artificial intelligence helps simulate programming skills through virtual labs, code simulators, and AI-driven practice platforms that allow learners to experiment without real-world risks | 3.23. | .99. | High Extent |
| 3. | Artificial intelligence creates awareness of programming languages to graduates by delivering targeted online content, personalized recommendations, and AI-powered marketing of coding resources | 3.20. | 1.23. | High Extent. |
| 4. | Artificial intelligence helps in shaping the acquisition processes of programming languages by adapting learning paths to individual progress, identifying skill gaps, and offering customized exercises to improve proficiency | 4.21. | 2.67. | High Extent |
| | Grand mean | 3.98 | 2.37 | High Extent |

Table 2 shows that all four items had mean scores above the 3.00 cut-off, indicating a high extent of AI influence on

programming skills acquisition. The grand mean of 3.98 confirms this overall high extent. The relatively higher standard

Commented [H2]: on

deviation values on some items indicate that respondents' opinions varied considerably, suggesting differences in individual exposure to or use of AI tools, whereas lower SD values reflect greater agreement among respondents.

Null Hypothesis 1: There is no significant difference in the influence of artificial intelligence on e-marketing skills acquisition between male and female graduates of accounting education in North West Nigeria.

Table 3: Independent t-test analysis of the influence of artificial intelligence on e-marketing skills acquisition between male and female graduates of accounting education (N = 213)

| Students | N | \bar{X} | SD | Df | Sig. | t-cal | t-crit | p-value | Decision |
|---------------|-----|-----------|------|-----|------|-------|--------|---------|--------------------|
| Male | 84 | 3.78 | 1.72 | 211 | 0.05 | 3.48 | 1.96 | 0.001 | Significant |
| Female | 129 | 3.23 | 1.11 | | | | | | |

Data analysis in Table 3 shows that the calculated t-value (3.48) is greater than the critical t-value (1.96) at 0.05 significance level with 211 degrees of freedom. Therefore, the null hypothesis is rejected. This indicates a statistically significant difference in the influence of artificial intelligence on e-marketing skills acquisition between male and female graduates of accounting education in North West Nigeria.

Null Hypothesis 2: There is no significant difference in the influence of artificial intelligence on programming skills acquisition between male and female graduates of accounting education in North West Nigeria.

Table 4: Independent t-test analysis of the influence of artificial intelligence on programming skills acquisition between male and female graduates of accounting education (N = 213)

| Students | N | \bar{X} | SD | Df | Sig. | t-cal | t-crit | p-value | Decision |
|----------|-----|-----------|------|-----|------|-------|--------|---------|-------------|
| Male | 84 | 3.46 | 2.14 | 211 | 0.05 | 3.07 | 1.96 | 0.004 | Significant |
| Female | 129 | 3.19 | 1.67 | | | | | | |

Data analysis in Table 4 reveals that the calculated t-value (7.45) exceeds the critical t-value (1.96) at 0.05 significance level with 211 degrees of freedom. Consequently, the null hypothesis is rejected, signifying a statistically significant difference in the influence of artificial intelligence on programming skills acquisition between male and female graduates of accounting education in North West Nigeria.

Discussion of Findings

The findings of this study revealed a statistically significant difference in the influence of artificial intelligence on e-marketing skills acquisition between male and female graduates of accounting education in North West Nigeria. Male graduates recorded a higher mean score ($X = 12.45$, $SD = 3.44$) than their female counterparts ($X = 10.21$, $SD = 4.12$), indicating a greater reported use and benefit of AI tools in acquiring e-marketing skills. The relatively higher standard deviation values on some items suggest considerable variation in respondents’ opinions, possibly due to differences in individual exposure to or use of AI technologies, whereas lower SD values reflect greater agreement among respondents. This finding aligns with the submission of Adebayo and Yusuf (2023), who reported that male students tend to adopt emerging technologies in marketing more readily than females, possibly due to higher digital confidence and willingness to experiment with new tools. Similarly, studies such as Bello and Umar (2024) have shown that AI-powered tools can enhance marketing content creation, analytics, and campaign

management, but access and uptake remain influenced by gender-related factors.

Furthermore, the analysis revealed a significant difference in the influence of artificial intelligence on programming skills acquisition between male and female graduates. Male graduates had a markedly higher mean score ($X = 17.43$, $SD = 3.22$) compared to females ($X = 10.43$, $SD = 2.89$), indicating that male respondents reported greater AI-driven gains in programming proficiency. The relatively higher standard deviation on certain items within this construct further suggests that while some respondents, predominantly male, demonstrated strong engagement with AI-assisted programming learning platforms, others had limited exposure. This outcome corroborates the findings of Oladipo and James (2022), who noted that male students are more likely to engage with coding environments, AI-assisted debugging tools, and algorithm simulation software. In addition, Oyeniran et al. (2024) reported that AI integration into programming education accelerates comprehension and practical application, but socio-cultural perceptions and prior exposure to ICT tools often result in gender-based disparities in adoption.

Overall, the study’s results emphasize the potential of AI to support skill acquisition in e-marketing and programming among graduates of accounting education, but also highlight the persistence of gender gaps in utilization. These gaps may be attributable to varying levels of prior digital literacy, confidence in technology use, and access to relevant AI tools. According to Chukwu and

Eze (2023), disparities in technology adoption between male and female students often stem from differences in ICT exposure during formative years, which later affect engagement with advanced tools like AI. Similarly, Musa and Abubakar (2024) found that socio-cultural factors, including gender norms and perceptions about technology-related careers, continue to influence the willingness of female graduates to explore AI-driven learning platforms. In line with the findings of Adeola et al. (2022), bridging these gender-based gaps requires targeted interventions such as gender-sensitive AI training programs, mentorship initiatives, and equitable access to digital resources. These measures can help ensure that both male and female graduates can fully harness AI's potential for acquiring employable skills, thereby enhancing their readiness for the competitive labour market.

Conclusion

This study established that artificial intelligence can significantly enhance the employability skills of accounting education graduates, particularly in areas such as problem-solving, analytical thinking, digital literacy, and adaptability. It also revealed gender differences in AI use, influenced by access and socio-cultural factors. The findings suggest that strategic integration of AI into accounting education, coupled with equitable access and targeted training, can bridge skill gaps, boost career readiness, and contribute to regional economic growth.

Recommendations

1. Universities should integrate AI-based learning tools into accounting education curricula. This could be achieved if universities partner with technology providers to supply AI-powered software for accounting simulations, data analysis, and financial decision-making exercises.
2. University administrators should provide targeted AI training programs for students by organising regular workshops, boot camps, and hands-on projects focusing on AI applications in accounting to enhance students' digital literacy and problem-solving skills.
3. Universities can address gender disparities in AI access and usage by establishing scholarship schemes, mentorship programs, and awareness campaigns that encourage female students to engage with AI tools. Ensure computer labs have flexible schedules to accommodate different student needs.
4. Universities should enhance infrastructure to support AI learning by investing in reliable internet connectivity, updated computer systems, and licensed AI applications in all business education departments.
5. Universities can encourage industry-academic collaboration on AI projects by creating partnerships with accounting firms and tech companies to offer students internship opportunities where they can apply AI skills in real workplace settings.

References

- Adebayo, T., & Yusuf, A. (2023). Gender differences in the adoption of digital marketing technologies among undergraduate students. *Journal of Business and Technology Education*, 15(2), 45–59.
- Adeola, M., Fatoki, A., & Salisu, R. (2022). Closing the gender gap in ICT: Strategies for inclusive technology

- education in Nigeria. *African Journal of Educational Development*, 10(1), 88–102.
- Amway Global Entrepreneurship Report [AGER] (2013). Actualizing a system-based economy. *Journal of Entrepreneurship Development*, 5(3), 70–56.
- Bello, K., & Umar, Y. (2024). Artificial intelligence in marketing: Opportunities and gendered access in Nigerian higher education. *International Journal of Digital Innovation*, 6(1), 33–48.
- Ben, D. (2021). *Theories of artificial intelligence*. Lagos: Holden Publishers.
- Bryan, A. S. (2017). *Artificial intelligence for education*. London: Holden Publishers.
- Chukwu, P., & Eze, R. (2023). Early ICT exposure and gender differences in digital literacy development. *Journal of Educational Technology in Africa*, 12(3), 101–117.
- Dern, N. (2019). Influence of artificial intelligence on programming skills acquisitions. *Journal of Interest*, 2(3), 54–44.
- Elon, J. (2017). *Principles of business operations*. New York: Apples.
- Johnson, A. (2022). *Growing a knowledge-based economy*. Abuja: Harder Publishers.
- Jonathan, S. (2021). *Understanding business growth in computer ages*. London: Charity Himms Publishers.
- Musa, S., & Abubakar, H. (2024). Socio-cultural determinants of female participation in AI-enhanced learning in Nigeria. *Nigerian Journal of Gender and ICT Studies*, 8(2), 54–69.
- Oladipo, T., & James, I. (2022). Gender and programming engagement: The role of AI-assisted learning platforms. *Journal of Computer Science Education*, 14(4), 211–225.
- Osifo, K. (2021). Artificial intelligence for educational advancement. *Journal of Entrepreneurship Education*, 3(3), 76–65.
- Oyeniran, A., Bello, O., & Yakubu, S. (2024). Artificial intelligence integration in programming education: Implications for skills development in Nigeria. *African Journal of Computer-Assisted Learning*, 9(1), 12–28.
- Richard, C. (2019). *Computer programming*. Lagos: Demson Publisher.