THE ROLE OF ARTIFICIAL INTELLIGENCE (AI) IN BUSINESS AND ENTREPRENEURSHIP EDUCATION IN LAGOS STATE UNIVERSITY OF EDUCATION, OTO/IJANIKIN, LAGOS

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Abstract

The study was carried out to investigate the Role of Artificial Intelligence (AI) in Business and Entrepreneurship Education in Lagos State University of Education. Different opinions of respondents on various aspect of the study were examined through questionnaire. One hundred and twenty (120) respondents were used and randomly selected from three (3) levels in the department of Business and Entrepreneurship Education, Lagos State University of Education. Whereby simple percentage was used to analyze demographic data and chi-square (x^2) method was adopted to test the formulated hypotheses at 0.50 alpha levels. The findings of the study revealed that the application and use of AI are significantly associated with both business education and entrepreneurship education. The study reveal that AI is becoming an important technological resources for improving the teaching and learning of business-related courses and for developing entrepreneurial competencies among students. It also reveal that learners need to be guided and enlightened on how important and useful is artificial intelligence is for business and entrepreneurship education is to and how they can get it and use it right, based on the findings of the study, it was recommended that seminar/workshop will help in enlighten and encourage the students to understand the importance and usefulness of artificial intelligence in the teaching and learning of business and entrepreneurship education in Lagos State University of Education.

Keywords: Artificial Intelligence, Business, Entrepreneurship, Education

Introduction

Business and entrepreneurship education has increasingly gained prominence as a global driver of economic growth, innovation, and job creation. Around the world, institutions of higher learning have recognized the critical role of entrepreneurship education in equipping students with the knowledge, skills, and competencies necessary to thrive in a rapidly changing economy. At the same time, advances in technology, particularly artificial intelligence (AI), have transformed how education is delivered, influencing pedagogy, curriculum development, and student engagement.

Artificial intelligence has emerged as one of the most disruptive technological innovations shaping education worldwide. AI applications such as intelligent tutoring systems, adaptive learning platforms, automated grading tools, and virtual assistants have redefined how knowledge is delivered and assessed (Zawacki-Richter, Marín, Bond, &Gouverneur, 2019). In business and entrepreneurship education, AI technologies are particularly relevant because they not only support teaching and learning but also mirror the technological changes occurring in the business landscape that students are preparing to enter. The integration of AI is reshaping traditional learning methods, promoting innovation, and preparing students for the demands of a technology-driven economy.

As businesses increasingly and adopting Artificial Intelligence for decision-making, customer engagement, and operational efficiency, it has become essential for educational institutions to incorporate Artificial Intelligence into their curricula to equip future entrepreneurs and business leaders with relevant knowledge and skills.AI tools are now being used to personalize learning, enhance classroom instruction, simulate real-world business scenarios, and provide intelligent

support systems for both teachers and students. Furthermore, AI empowers learners to develop critical thinking, creativity, and digital literacy skills crucial for entrepreneurial success in a competitive global market. As such, the role of AI in business and entrepreneurship education is not only to modernize instructional methods but also to nurture a new generation of tech-savvy and innovative entrepreneurs (Prashar, Jha, & Sethi, 2023). Artificial Intelligence (AI) is transforming business and entrepreneurship education by enhancing learning experiences, providing valuable tools for decision-making, and fostering innovation. AI-powered tools offer personalized learning, real-world simulations, and data-driven insights, preparing students for a dynamic business landscape. In entrepreneurship, AI aids in idea generation, market research, and automation, streamlining the process of launching and growing a business.

Unfortunately, adoption of Artificial intelligence across Africa is still in its nascent stages, though it is gaining momentum. Countries such as South Africa, Kenya, and Nigeria are investing in AI research hubs, startups, and policies to foster innovation in education and business (Mhlanga, 2022). Nonetheless, AI adoption in higher education faces significant barriers such as inadequate infrastructure, low digital literacy, and limited funding. These challenges highlight the importance of examining the extent of AI adoption as critical for understanding the role of AI in enhancing entrepreneurship education in Nigeria and Lagos State in particular.

Adoption of AI in Nigerian tertiary institutions is still relatively low when compared to global standards. However, universities in Lagos State have begun experimenting with digital learning platforms, AI-powered assessment tools, and online entrepreneurship training. The extent of adoption of AI for teaching and learning therefore becomes a crucial factor in determining the effectiveness of business and entrepreneurship education in this region. Without adequate adoption, students may remain ill-prepared for the AI-driven business environment they will eventually encounter.

Availability of resources to support AI adoption is another critical factor in this relationship. In many Lagos State universities, inadequate access to modern infrastructure such as stable internet connectivity, AI-powered software, and digital learning environments hampers the effective use of AI in teaching business and entrepreneurship subjects. More so, lecturers and students often lack the necessary training and digital literacy skills to fully exploit AI tools (Rodríguez-Tort, Escamilla, &Hosseini, 2021). This lack of resources represents a significant gap between the potential of AI and its actual impact on business education outcomes.

Globally, studies have shown that universities that actively integrate AI into business and entrepreneurship education achieve better learning outcomes. As opined by Raimo, Vitolla, Nicolò, andPolcini, (2023), AI-driven simulations and virtual reality applications allow students to experiment with entrepreneurial ventures in risk-free environments, thereby fostering experiential learning. This demonstrates the synergistic relationship between effective AI adoption and integration directly enhance the quality and impact of business and entrepreneurship education.

However, neglecting AI integration in business and entrepreneurship education may exacerbate inequalities between Nigerian graduates and their global counterparts. In an increasingly competitive global economy, AI literacy is fast becoming a prerequisite for success in business and entrepreneurship. Thus, the gap in AI adoption within Lagos State universities presents challenge and opportunity for policy makers and educators. Hence, it is necessary to align global technological change with local educational realities by investigating the role of AI in enhancing business and entrepreneurship education, especially in Lagos State.

Ultimately, the background underscores that while entrepreneurship education is globally acknowledged as essential for economic development, its success in the digital age is increasingly tied to effective AI integration into pedagogy, resources, and curricula. Lagos State universities, as centres of learning in Nigeria's economic hub, have both the opportunity and responsibility to lead in this transformation. Understanding the dynamics of AI adoption and its implications for entrepreneurship education is thus a timely and significant area of inquiry.

Statement of the Problem

Artificial Intelligence (AI) has emerged as one of the most significant technological developments influencing education, business, and entrepreneurship globally. Its applications in education include personalized learning, automated assessment, intelligent tutoring systems, content generation, data analysis, and improved access to learning resources. In business and entrepreneurship education, AI can assist students in developing relevant digital, analytical, problem-solving, marketing, innovation, and entrepreneurial skills required to function effectively in a rapidly changing business environment. Despite these potential benefits, the extent to which AI is effectively integrated into business and entrepreneurship education in Nigerian tertiary institutions remains a concern. Many students in Business and Entrepreneurship Education are just coming up with the use of Artificial Intelligence, While AI offers transformative potential for business and entrepreneurship education, LASUED faces challenges in realizing the following benefits: **Curriculum Gaps, Lack of Resources and Infrastructure, Ethical and Societal Implications, Teacher Training and Support, Cost of Implementation.** Addressing these issues is crucial for LASUED to effectively prepare its students for the future of business and entrepreneurship, ensuring they can leverage Artificial Intelligence for innovation, productivity, and sustainable growth.

Research Questions

The study answered the following questions:

i. What is the extent to which AI is currently used in business and entrepreneurship education in Lagos State University of Education?
ii. Is there any availability of resources, infrastructure, and faculty training related to AI integration in Lagos State University of Education?
iii. Does AI technologies be integrated into curriculum to enhance learning and improve teaching methods to better prepare students for the modern AI driven business landscape?

Research Hypotheses

The following hypotheses were testedat .05 level of

i. There is no significant relationship between the use of AI in business education versus entrepreneurship education at Lagos State University of Education.
ii. There is **no significant availability** of resources, infrastructure, and faculty training related to AI integration in Lagos State University of Education.
iii. Integration of AI technologies into the curriculum does **not significantly enhance learning** or **improve teaching methods**, and it does **not significantly prepare students** for the modern AI-driven business landscape.

Method

Descriptive survey research method was adopted for the study which would avail the study the opportunity to establish relationships that exists between variables. It helped the researcher to select the respondents to the questionnaire and described the data succinctly following their responses to the items used to solicit opinion on The Role of Artificial Intelligence (AI) in Business and Entrepreneurship Education in Lagos State University of Education by the target population.The target population comprised 640 students of Business and Entrepreneurship Education of Lagos State University of Education Oto/Ijanikin, Lagos State.Simple random sampling technique was adopted to select One Hundred and Twenty (120) students from among the three (3) levels of Business and Entrepreneurship Education. This is because the whole of the study had a homogeneous characteristic and the chosen sample would fully represent the whole population effectively. The instrument used in the study was a questionnaire to elicit information from the respondents because it was cheaper, less time consuming and easier to administer to respondents.The questionnaire seeks the opinion of respondents on the role of Artificial

Intelligence (AI) in Business and Entrepreneurship Education in Lagos State University of Education. It is made up of fifteen items which is positively and negatively stated to enable respondents to have a balanced response thereby avoiding a bias result.The questionnaire was provided with four responses eachbuilding on the idea of Likert scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagreed (SD).

Result

Presentation of Demographic Data

Table 1: showing genders of the respondents

Gender	Frequency	Percentage
Male	50	41.6
Female	70	58.3%
Total	**120**	**100%**

The analysis of the gender shows that 41.6% of the respondents are male while 58.3% of the respondents are female –one can infer that the female gender responded to the questionnaire mostly.

Table 2: Show age analysis of the respondents

Age	Frequency	Percentage
16 yrs and below	76	63.33
20 yrs and above	44	36.67
Total	**120**	**100%**

The table above shows the age group of the respondents 63.33% of the respondents are between the ages of 16 years and below while 36.67% of the respondents are between the age of 20 years and above. This implies that 16 years and below respondents most.

Table 3: Shows class analysis of the respondent

Level	Frequency	Percentage
100 Level	38	31.6
200 Level	49	40.8
300 Level	33	27.5
Total	**120**	**100**

The table above shows the class analysis of the respondents, 31.6% are in 100 level, 40 .8% are in 200 level while 27.5% are in 300 level. This implies that 200 level has the largest number of percent of respondents.

Testing of Hypotheses

Hypothesis One: There is no significant relationship between the use of AI in business education versus entrepreneurship education at Lagos State University of Education.

Table 4. An alysis of result of relationship between the use of AI in business education and entrepreneurship education

S/N	A	SA	D	SD	TOTAL	D.F	P	Cal x^2	Tab x^2	Decision
1	79	31	5	5	120					
2	51	46	9	14	120					
3	11	11	57	41	120	12	0.05	298.74	21.026	Rejected
4	49	17	29	25	120					
5	43	40	33	4	120					
Total	**233**	**145**	**133**	**89**	**600**					

X^2 = 298.74

With five columns and four rows, degree of freedom (df) will be (r – 1) (c – 1) = (4 – 1) (5 – 1)
3 x 4=12
Significant level = 0.05
Chi –square table = 21.026
From the table 4 above, it is observed that the table value i.e 21.026 is lesser than the calculated value 298.74; the decision is to reject the null hypothesis.This means that the null hypothesis which stipulated that there is no significant relationship between the uses of AI in business education versus entrepreneurship education at Lagos State University of Education is rejected.

Hypothesis Two: There is **no significant availability** of resources, infrastructure, and faculty training related to AI integration in Lagos State University of Education.

Table 5 Analysis of result of availability of resources, infrastructure and faculty training related to AI integration

S/N	A	SA	D	SD	TOTAL	D.F	P	Cal x^2	Tab x^2	Decision
1	17	34	60	9	120					
2	39	35	16	30	120					
3	66	41	12	1	120	12	0.05	215.57	21.026	Rejected
4	35	75	8	2	120					
5	52	22		4	120					
Total	**209**	**207**	**138**	**48**	**600**					

With five columns and four rows, degree of freedom (df) will be (r – 1) (c – 1) = (4 – 1) (5 – 1) = 3 x 4 = 12
Significant level =0.05
Chi – square table = 21.026
From the table 5 above, it observed that the table value i.e. 21.016 is lesser than the calculated value 215.57; hence, the null hypothesis was rejected. This implies that there is **no significant availability** of resources, infrastructure, and faculty training related to AI integration in Lagos State University of Education

Hypothesis Three: Integration of AI technologies into the curriculum does **not significantly enhance learning** or **improve teaching methods**, and it does **not significantly prepare students** for the modern AI-driven business landscape.

Table 6. Analysis of result of Integration of AI technologies into the curriculum and enhancing teaching method

S/N	A	SA	D	SD	TOTAL	D.F	P	Cal x^2	Tab x^2	Decision
1	29	76	12	2	120					
2	48	33	36	2	120					
3	52	60	7	1	120	12	0.05	298.74	21.026	Rejected
4	58	51	10	1	120					
5	30	57	29	4	120					
Total	**217**	**277**	**94**	**12**	**600**					

X^2 = 157.04
With five columns and four rows, degree of freedom (df) will be (r – 1) (c – 1) = (4 – 1) (5 – 1) 3 x 4=12
Significant level = 0.05
Chi – square table = 21.026

Since the calculated value 157.04 is more than the table 6 value 21.026, hence, the null hypothesis was rejected. This implies that integration of AI technologies into the curriculum does **not significantly enhance learning**or**improve teaching methods**, and it does **not significantly prepare students** for the modern AI-driven business landscape

Discussion of findings

The findings of this study revealed that the use of Artificial Intelligence (AI) has a significant relationship with business education and entrepreneurship education at Lagos State University of Education, Oto/Ijanikin. The result of the first hypothesis showed that the calculated chi-square value of 298.74 was greater than the critical chi-square value of 21.026 at 0.05 level of significance and 12 degrees of freedom. Consequently, the null hypothesis was rejected. This finding indicates that the application and use of AI are significantly associated with both business education and entrepreneurship education. The result suggests that AI is becoming an important technological resource for improving the teaching and learning of business-related courses and for developing entrepreneurial competencies among students. This finding is consistent with the position of Zawacki-Richter, Marín, Bond and Gouverneur (2019), who observed that AI applications such as intelligent tutoring systems, adaptive learning platforms, automated assessment and virtual assistants are changing the way teaching and learning are conducted in higher education. Similarly, Prashar, Jha and Sethi (2023) noted that AI integration in business education provides opportunities for pedagogical transformation, innovation and the development of skills required in a technology-driven business environment.

Conclusion

The findings from this study shows that the integration of Artificial Intelligence (AI) in business and entrepreneurship education at Lagos State University of Education, Oto/Ijanikin, presents significant opportunities for enhancing teaching and learning processes. Artificial Intelligence has the potential to revolutionize curriculum delivery by enabling personalized learning experiences, improving thinking and fostering innovation among students in tertiary institutions. The study reveals that as Artificial Intelligence was gradually introduced there are lots of challenges such as ICT infrastructure to support the integration of AI technologies, insufficient faculty training, and lack of awareness still hinder the full implementation. To harness the full benefits of Artificial Intelligence in Business and Entrepreneurship Education, there is need for deliberate continuous professional development for educators, and curriculum reforms that embed AI-driven content and tools.

Recommendations

Based on the findings of this study, on the Role of Artificial Intelligence (AI) in Business and Entrepreneurship Education in Lagos State University of Education, Oto/Ijanikin, the following recommendations are put forward:

1. The management of Lagos State University of Education (LASUED) should provide adequate AI-enabled digital infrastructure, including reliable internet connectivity, modern computers, smart classrooms, and access to appropriate AI tools, to facilitate effective teaching and learning.
2. The University should organize regular training and capacity-building programmes for lecturers in the Department of Business and Entrepreneurship Education. Such training should focus on the effective use of AI tools for lesson preparation, teaching, assessment, research, and entrepreneurial skill development.
3. The university should improve students' access to AI technologies. Where possible, students should be provided with institutional access relevant AI platforms and digital learning resources so that financial constraints do not prevent them from acquiring essential AI-related skills.

4. Awareness campaign should be conducted within the university community in other to educate students and staff on the use and importance of AI in education and business.
5. The university should encourage research into AI applications in education and entrepreneurship by providing grants and support for academic projects and publications in this field.
6. The Department should establish guidelines for the responsible and ethical use of AI. These guidelines should address issues such as academic integrity, plagiarism, overdependence on AI, data privacy, misinformation, and proper acknowledgement of AI-assisted work.

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