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## INTEGRATING ARTIFICIAL INTELLIGENCE INTO THE BUSINESS EDUCATION CURRICULUM: ENHANCING CREATIVITY AND INNOVATION FOR NATIONAL ECONOMIC DEVELOPMENT

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### **Abstract**

This study investigated the impact of Artificial Intelligence (AI) on Business Education Curriculum in Nigeria, focusing on the professional development of Business Educators and their contribution to creativity and innovation in the national economy. The research utilized a structured questionnaire, validated by three experts and tested using the Cronbach's Alpha technique to determine its reliability, which yielded a 0.86 coefficient index. The Data for this study was collected by direct contact with the respondents. The population of this study comprised fifty-six (56) Business Educators in five public Tertiary institutions in Edo State, Nigeria. The entire population was adapted for the study. The questionnaire was administered and re-administered on the spot with the help of two research assistants. Using these methods, copies representing a 100% retrieval rate of return were achieved. The data were analyzed using Mean and standard deviation (SD) to answer the research questions with a 4-point modified Likert scale with a decision rule based on the criterion mean value of 2.50. The findings include: AI can strongly determine the enhancement of the business education curriculum for creativity and innovation in the national economy. We can conclude that the incorporation of AI into business education curricula is a strategic development policy that has the potential to impact a country's economic trajectory, rather than only being an academic novelty. The study advocates for Nigerian universities to revise curriculum content using AI technology and business applications, incorporating industry collaboration, real-world problem-solving, and professional development opportunities.

**Keyword:** Business Education, Creativity, Curriculum, Enhancement, and Innovation of the National economy.

### **Introduction**

Despite the growing importance of Artificial Intelligence in the business landscape, educational institutions face challenges in effectively integrating AI concepts into their business education curriculum. These challenges include a lack of trained faculty, outdated course materials, insufficient practical frameworks for application, resistance to change from traditional teaching methods, and the need for an interdisciplinary approach. As a result, students may graduate with limited understanding and preparedness to leverage AI technologies in their future careers, potentially hampering their competitiveness in the workforce.

In the 21st century, education is crucial for promoting economic and social development with the global economy and information-driven society pressuring education systems to use technology to teach students necessary knowledge and skills. As technological

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change accelerates, there is an urgent need for support in managing new opportunities, particularly artificial intelligence. Artificial Intelligence (AI) refers to the ability of computer systems to perform tasks that typically require human intelligence, such as learning, reasoning, problem-solving, and decision-making. It encompasses a broad range of technologies that enable machines to mimic human cognitive functions (Craig, et al 2024). Curriculum is a structured set of learning objectives, content, materials, activities, and assessments, designed by educational institutions or governing bodies to outline students' expected learning and delivery methods.

Enhancement of Artificial intelligence (AI) in curriculum can offers a unique opportunity that would enable educational systems (such as Business education) in teaching and learning approach that would provide learners with the abilities, skills, attitudes and values fit for the future development in educational sectors and broaden the reach of future-ready education systems to enhance their effectiveness in preparing students and professionals like Business Educators for the future in the this era of 21st century.

The challenge confronting our educational system today is how to transform the curriculum process to provide students with the skills to function effectively in a continuously changing environment. As noted by Rahimi (2025), artificial intelligence (AI) is increasingly having an impact on the education system, bringing opportunities as well as numerous innovative ideas, and is a critical driver of success that may need to place more emphasis on teaching students how to think creatively, identify new opportunities, and develop new learning opportunities. AI can enhance learning environments by creating interactive, dynamic environments that encourage creative thinking and problem-solving. It can analyze complex data, identify trends, and generate novel ideas that foster innovative mindsets. The study of McGehee,.(2023) on the use of AI in curriculum development, highlighted its potential in enhancing learning outcomes, preparing students for future challenges, and fostering inclusive education. Ementa and Alonta (2021) stated that business education curriculum is a continuous process of planning and development, focusing on skill acquisition to improve job performance. Some critics argue that the curriculum overemphasizes theories and models that are not applicable in the real world of work.

Infusing AI into Business Education will help students gain practical experiences and digital literacy, which are increasingly sought after by employers in various sectors. Graduates without practical experience are ill-equipped to deal with real-world challenges. Therefore, curriculum developers should balance theory with practical learning skills to better align

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programs with current and emerging industry needs. Camellia et.al (2024) advocated that, enhancing AI into educational sectors specifically in (business education program), may help to equip students with skills essential for future jobs in this era of digitalization, innovation, creativity design, and critical thinking. According to Sollosy and McInerney (2020), Artificial intelligence in business education curriculum can help to shape the future of both educators and graduates for transformative changes, learning experiences, improve efficiency, and foster personalized learning with immersive, hands-on learning experiences that can complement theoretical instruction, with practical experience to apply their theoretical knowledge to real-life situations. The study of Lee et al (2024) affirmed that, enhancing AI in education may help educators to identify gaps in student knowledge and provide targeted feedback to improve their learning outcomes. Borenstein and Howard, (2021) emphasized the need for all students in both universities and colleges to embraced AI skills across all disciplines. Similarly, Onyebuchi et al (2024) noted that, AI can be used to create customized learning experiences both in individual and collaborative needs. Enhancement of AI in Business education curriculum can transform learning experiences, improve efficiency, and enhance students' academic performance in shaping the future of graduates.

Adaptability ensures that curricula remain relevant and effective in the ever-evolving business landscape. Traditional curricula may struggle to adapt to rapid technological advancements and industry demands. AI in business education curriculum provides flexibility, ensuring relevance and effectiveness in preparing students for current and future challenges. This adaptability ensures that curricula remain relevant and effective in the ever-evolving business landscape, creating personalized, effective instructional materials in line with students' needs, promoting engagement, and preparing them for the 21st-century workforce, while updating curricula based on trends. Rashid (2024) stated that, AI innovation allows educators to make informed, data-driven decisions and better allocate resources with overall quality and relevancy of education, intentions of labor market trends, and skill requirements updates, ensuring relevance to current and future job markets and workforce. An article by Guidoum & Elkhansa (2024) explored how university teachers perceive the impact of artificial intelligence (AI) on students' academic performance. Vieriu and Petrea (2025) stated that the integration of Artificial Intelligence (AI) in education has transformed academic learning, offering both opportunities and challenges for students' development. Additionally, Sara et al. (2024) confirmed that AI literacy represents a departure from the conventional educational system in empowering students to navigate and harness AI tools in various aspects of life and

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work. Zhang et al (2024) affirmed that AI Chatbots can create virtual assistants and facilitate communication between students and instructors. This assistance provides support and answers questions, freeing up instructors to focus on more complex tasks. It can also be used to create virtual reality environments where students practice skills and interact with others in a simulated setting.

As the education system is rapidly evolving, the need for new models and resources to cater to individual learning styles and paces is increasing. In the digital landscape, AI skills are becoming essential for both Educators and students to excel in their careers. Enhancing AI in personalizing learning experiences, adjusting content, pacing, and assessment methods is crucial for individual learners. The study of Zeb et al (2024), & Luo (2024) affirmed that ChatGPT's role in personalizing education is particularly noteworthy in analyzing student data and employing advanced algorithms. GPT and other Large Language Models (LLMs) can create customized learning experiences, adapting not only to academic requirements but also to each student's learning style, pace, and preferences. This may lead to a more dynamic and effective educational environment, where students are actively engaged and involved in their learning activities, rather than being mere passive recipients of information. AI can create a personalized and adaptive learning environment by tailoring educational content to individual student needs and preferences. This can be achieved through tutoring systems that offer personalized support outside of regular classroom hours. These systems can answer questions, provide explanations, and offer practice problems based on students' individual needs, reinforcing learning and boosting comprehension. AI encourages a shift towards student-centric, data-driven teaching methodologies, facilitating online learning resources globally with a more effective and efficient learning experience for both students and educators. With personalized guidance and development, students can advance their careers with confidence. The symbiosis between human ambition and artificial intelligence promises a landscape where personalized growth is not just accelerated but also more aligned with individual aspirations and global needs. Business educators can create more personalized and effective instructional materials, generate content that promotes engagement, and prepare students for future innovation.

AI has the potential to revolutionize various aspects of life, work, and learning. Professionals can excel in AI careers by understanding theoretical concepts and applying them in real-world applications. Training modules, resources, and feedback can be tailored to their professional growth needs, ensuring a smooth transition. Business Educators must

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continuously develop their skills and strategies to stay updated with pedagogical practices and technological advancements, particularly in the AI-driven world, which offers growth and innovation. Shezad (2025) affirmed that, AI tailors career development pathways that are uniquely suited to professional develop skills to create and update information frequently to keep the lessons up-to date with time, organize research papers, make presentations, notes, and manage administrative tasks. Price (2024) revealed that in professional development, more than half of instructors believe AI in schools has improved the process of teaching and learning. According to Godpower et al (2025), AI is transforming business education by improving content quality, relevance, instructional design, and engagement. This transformation cause development, making it more efficient and learner-centric. This leads to more inclusive, effective, and future-ready learning experiences for students and educators. T The use of AI in business education enables professionals to identify and pursue opportunities for innovation in teaching and learning methods (Camelia,2024)

This study fills a critical gap in the literature by empirically investigating how AI acts as a determining factor in enhancing the relevance, adaptability, creativity, and innovation within the business education curriculum, especially concerning national economic transformation. The study will help bridge this by offering a multi-dimensional understanding of how AI can be leveraged to align business education with real-world economic development.

### **The aim and objectives of the Study**

The aim of this study is to investigate if artificial intelligence can determine the enhancement of the business education curriculum for creativity and innovation in the national economy. The objectives of this study are to:

1. Examines AI in Business Education Curriculum for Relevance and Adaptability in Creativity and Innovation in the national economy
2. Examines AI in Business education curriculum Personalized Learning, Creativity and Innovation in the national economy
3. Examines AI in Business education curriculum for Professional Development in Creativity and Innovation in the national economy

### **Researcher Questions**

The following research questions were raised in this study:

- 1) Can AI determine the process of enhancing Business Education curriculum to foster relevance for creativity and innovation in the nation's economies?

- 2) Can AI determine the process of enhancing Business Education curriculum with AI to foster personalized learning for creativity and innovation.?
- 3) Can AI determine the process of enhancing Business Education curriculum with AI to foster professional development for creativity and innovation in the nation's economies?

### Methodology

The study used a descriptive survey designed to investigate Business Educators in five public Tertiary institutions in Edo State, Nigeria. The research used a structured questionnaire to collect data on the enhancement of Business Education Curriculum with Artificial Intelligence for Creativity and Innovation. The study involved 56 Business Educators from public Tertiary institutions in Edo State, Nigeria (Table 1). The use of a structured questionnaire has assisted in obtaining educators' opinions on the enhancement of the Business Education Curriculum with Artificial Intelligence for Creativity and Innovation.

The questionnaire was validated by three business education experts and the Cronbach Alpha technique to determine its reliability yielded a 0.86 coefficients index. The questionnaire was administered and retested, with a 100% retrieval rate. The researcher used a 4-point modified Likert scale with a mean value of 2.50, with items above 2.50 considered Strongly Determined (SD) significance and items below 2.50 Weakly Determined (WD).

**Table 1:** Distribution of Educators in Public Tertiary Institutions in Edo State Surveyed

Serial Number	Name of Institution	Location of Institution	Number of Educators
1	University of Benin	Benin City	14
2	Ambrose Ali University	Ekpoma	6
3	Federal Polytechnic	Auchi	28
4	Federal College of Technical Education	Ekiadolor	5
5	College of Education	Igueben	3
Total			56

**Research Question 1:** Can AI determine the process of enhancing Business Education curriculum to foster relevance for creativity and innovation in the nation's economies?

**Table 2: Mean Ratings of Respondents on whether Artificial Intelligence can enhance Business Education Curriculum relevance and Adaptability, for Creativity and Innovation in the nation's economy**

S/N	ITEMS	$\bar{x}$	SD	Remark
1.	AI enhances flexibility in content	2.87	1.16	SD
2.	AI enhances access to Information and learning materials.	2.80	1.32	SD
3.	It engages and aligns with students` learning needs.	3.15	1.01	VSD
4.	It provides instructional strategies for learning styles.	2.61	1.35	SD
5.	Enhances assessments to accommodate students` reading levels	3.65	0.71	VGS
6.	It Monitors students` progress and learning outcome.	2.93	1.14	SD
7.	It uses as interdisciplinary approaches.	2.57	1.32	SD
8.	Its Social Connectivity in lesson delivery	2.01	1.29	WD
9.	It allows students to progress as their own pace.	2.50	1.04	SD
10.	It prepares for the Digital workplace;	2.29	1.30	WD
	<b>Grand Mean</b>	<b>2.78</b>		<b>SD</b>

Table 2 presents a ten-item description of if Artificial Intelligence can enhance Business Education Curriculum relevance and adaptability for Creativity and Innovation in national economy. Two items scored very strongly determine, while others scored weakly determine. Overall, the Grand mean is 2.78, indicating strongly determine (SD).

**Question 2:** Can AI determine the process of enhancing Business Education curriculum with AI to foster personalized learning for creativity and innovation?

**Table: 3 Mean Ratings of Respondents on if Artificial Intelligence can enhance Personalized Learning, in Business Education Curriculum for Creativity and Innovation in the national economy**

S/N	ITEMS	$\bar{x}$	SD	Remark
11.	It encourages training and professional development.	2.80	0.98	SD
12.	Allowed Online course and Webinars.	2.59	1.20	SD
13.	It encourages creativity and innovation in projects	2.52	1.12	SD
14.	Students` engagement and motivation.	2.56	1.26	SD
15.	For professional development and opportunities	2.21	0.10	WD
16.	For adaptive learning technologies.	2.82	1.03	SD
17.	For mentorship and coaching.	2.27	1.24	WD
18.	Online learning platforms.	2.77	1.35	SD
19.	Alignment workshops.	3.14	1.13	VSD
20.	Collaboration and teamwork.	2.85	1.06	SD
21.	For workshops and Seminars	2.85	1.06	SD
	<b>Grand Mean</b>	<b>2.67</b>		<b>SD</b>

Table 3 shows the description of whether Artificial Intelligence can enhance *the* Business education curriculum for Personalized Learning for Creativity and Innovation in the national economy. One item out of eleven (item 11) indicated a very great significance (VGS). While two items (items 15 & 17) indicated Weakly Determined (WD) by the respondents. Thus, the Grand Mean of 2.67, indicates that Artificial Intelligence Strongly Determines the enhancement of Business Education Curriculum for Personal Educators' Professional Development for Creativity and Innovation in the national economy.

**Question 3** Can AI determine the process of enhancing Business Education curriculum with AI to foster professional development for creativity and innovation in the nation's economies?

**Table 4: Mean Ratings of Respondents on whether Artificial Intelligence can enhance Business education curriculum for Educators' Professional Development for Creativity and Innovation in the national economy.**

S/N	ITEMS	$\bar{x}$	SD	Remark
22.	Apply AI in your current job.	2.80	0.98	SD
23.	Team collaboration.	2.59	1.20	SD
24.	For skill Proficiency	2.44	1.12	WD
25.	To aid creativity	2.21	1.26	WD
26.	AI tools as interactional strategy in lesson delivery.	2.47	0.10	WD
27.	Professional Networks.	2.82	1.03	SD
28.	Feedback and suggestions.	2.27	1.24	WD
29.	Use for workshops and seminars.	2.77	1.35	SD
30.	Knowledge sharing.	3.14	1.13	VSD
31.	For continuous learning.	2.85	1.06	SD
32.	Personal Development goals	2.85	1.06	SD
	<b>Grand Mean</b>	<b>2.67</b>		SD

Table 4 shows the description of if Artificial Intelligence can enhance Business Education Curriculum for Educators' Professional Development, Creativity and Innovation in the national economy. One item, number 30, indicates a very strongly determined (VSD), four items(24,25,26 &28) indicated Weakly Determined (WD), while other items indicated strongly determined (SD). The Grand Mean of 2.67 indicates that Respondents believe that AI in Business education curriculum has significantly contributed to the national economy.

### Discussion of Findings:

This study explored enhancement of Business Education curriculum with Artificial Intelligence for creativity and innovation in the national economy. The empirical results of research question one shows that respondent agreed that, AI in Business education curriculum has the adaptability and relevance to adjust and evolve the program in response to changing

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economic technological and societal conditions. This flexibility ensures that curricula remain relevant, be in content and effective, with students' needs, promotes engagement, in preparing students for current and future challenges for the demands of the 21st-century workforce. This finding aligns with Rashid & Kausik (2024) who found that, AI innovation enables educators to make informed, data-driven decisions, allocate resources effectively, and ensure the quality and relevance of education. However, Walter (2024), indicated that, the AI-adopted world can be overshadowed by practical application advice based on the experiences of lecturers. While Ajani et al (2024) and Arista et al (2023) affirmed that, AI literacy goes beyond traditional learning paradigms, focusing on equipping students with the skills to navigate and harness AI tools in all aspects of education, life, and work. AI technology, such as chatbots, can be used to create virtual assistants or help students communicate with instructors and classmates. Enhancing AI technology in business education curriculum ensures curriculum relevance and adaptability with educational standards and learning objectives, identifying areas where alignment is lacking, and helping educators make necessary adjustments.

The findings of question two, Table 3 revealed that, AI Strongly Determines personalized learning for creativity and innovation. Traditional curricula often follow a one-size-fits-all approach, which may not cater to individual learning needs. AI can personalize learning experiences by adapting content, pacing, and assessment methods to suit the needs and preferences of individual learners. This is in agreement with the findings of Zeb et al (2024), and Luo (2024) which showed that, AI plays a crucial role in personalizing learning by analyzing student data and employing advanced algorithms. GPT and LLMs can create customized learning experiences, adapting to each student's learning style and pace. This creates a dynamic and effective educational environment, promoting active engagement and critical thinking. This is in line with the position of Shezad (2025) who asserts that, enhancement of AI in Business Education curriculum requires a focus on creativity, technology fluency, and a paradigm shift towards a dynamic, interactive, and student-centered learning environment. In their various studies and findings, Sharma et. al (2025) believed that, (AI) role, in personalizing learning is particularly noteworthy in analyzing student data and employing advanced algorithms, GPT and other Large Language Models (LLMs) can create customized learning experiences, adapting not only to academic requirements but also to each student's learning style, pace, and preferences which may leads to a more dynamic and effective educational environment, where students are actively engaged and involved in their learning activities, rather than being mere passive recipients of information. Enhancing AI in

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Business Education curriculum requires a focus on creativity, technology fluency, and a paradigm shift towards a dynamic, interactive, and student-centered learning environment.

Responses to Question three in Table 3 revealed that, majority of respondents agreed that the enhancement of AI in Business education curriculum can support professional learning pathways for Business educators. This includes offering training modules, resources, and feedback for instructional strategies and curriculum adjustments. AI can tailor career development pathways to individual skills, allowing teachers to create and update information frequently to keep lessons up-to-date, check homework, grade tests, organize research papers, maintain reports, make presentations, notes, and manage administrative tasks. This aligns with Shezad (2024)'s position that AI tailors career development pathways uniquely suited to individual skills. The enhancement of AI in Business education curriculum can help Business education. Price (2024) highlighted the positive impact of AI in schools, stating that it enhances teaching and learning by providing real-time analytics, improving accessibility, and fostering innovation.

The integration of artificial intelligence in business education curriculum can lead to technological advancements, preparing graduates to lead in AI-driven business landscapes, improving learning materials quality, and transforming programs to build a robust, innovative, and competitive economy.

### **Conclusion:**

The set-out objectives of this study have been achieved. We conclude that AI can strongly determine the enhancement of the business education curriculum for creativity and innovation in the national economy. This study has revealed that the integration of AI into business education curriculum is more than an academic innovation - it is a strategic development policy that can influence the trajectory of a national economy. Enhancement of AI in business education curriculum becomes central. AI - enhanced business education curriculum will provide graduate who are not only capable of using technology but also of leading innovation, creating jobs, and transforming industries for government, educational and private sectors. This represents a shared opportunity to align educational outcomes with national developmental goals, thereby making AI a cornerstone of creativity and economic prosperity.

### Recommendations:

Following the analysis of the research data, it is recommended that,

1. Curriculum designers for business education should make sure that the curriculum is updated frequently to reflect the quick developments in artificial intelligence (AI) and business applications. They should also work with industry to give students real-world problems that are relevant, adaptable, and encourage creativity and innovation in the country's economy.
2. Adaptive learning platforms that use AI to personalize the learning experience based on each student's progress, preferences, and learning styles should be implemented by the business education department, which should also make sure that the curriculum content is updated continuously and evolves with AI-powered learning management systems.
- 3 To help faculty stay current on the newest developments in AI and teaching approaches, departments, faculty, and institutions should provide professional development programs. This can be achieved by holding frequent workshops, training sessions, and rigorous boot camps on AI tools and technologies for both teachers and students.

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