

## INTEGRATION OF ARTIFICIAL INTELLIGENCE INTO THE BUSINESS EDUCATION PROGRAMMES: A PANACEA FOR BUILDING A TECHNOLOGICAL DRIVEN WORKFORCE

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### Abstract

*Artificial Intelligence (AI) has emerged as a transformative force across industries, reshaping how organizations operate, innovate, and compete. Business education programmes, traditionally designed to prepare future leaders in management, finance, marketing, and entrepreneurship, are now compelled to integrate AI into their curricula and pedagogy. This paper explores the role of AI in business education, examining its pedagogical applications, curricular integration, ethical implications, challenges, and future prospects. It argues that AI is not merely an auxiliary tool but a foundational element in preparing students for leadership in the digital economy. The paper suggested among others that the federal government should improve fundings for University Education in order to make it possible for universities to acquire the artificial intelligence softwares for their Business Education programmes.*

**Keywords:** *Artificial Intelligence, Business Education, Technological Driven, Workforce*

### Introduction

Artificial Intelligence (AI) has rapidly evolved from a niche technological innovation into a transformative force across industries. In business education, AI is no longer a peripheral topic but a central pillar shaping curricula, pedagogy, and the future of management training. As organizations increasingly rely on AI-driven tools for decision-making, efficiency, and innovation, business schools must prepare students to navigate and lead in this new landscape. According to Bassey and Akpan (2026), Business schools have historically adapted to technological shifts — from the rise of computing in the 1980s to globalization in the 1990s.

Business Education according to Bassey, et al. (2024) is a programme of study that is involved in the inculcation of salable skills for and about business. Institutions offering business education have long been recommended by Ido and Bassey (2016) to incorporate artificial intelligence to boost teaching and learning. Artificial intelligence represents the next frontier that is why Ido and Bassey (2015) predicted that the impacts of globalization will definitely make technological evolutions and adoption of artificial intelligence possible to enhance teaching and learning. According to Bassey, et al. (2024), artificial intelligence has a great potential to improve learning, boost office productivity and also accelerate assimilation of learned contents by students.

Ido and Bassey (2016) further highlighted the importance of artificial intelligence in business education programmes to ensure feasibility of the programmes and also ensuring that graduates of the programmes are industrially equipped to meet up with the challenging and evolving labour market. The place of artificial intelligence in business education programmes cannot really be overemphasized due to its seeming importance to the generality of the programmes. Business education programmes have a lot to benefit from this technology but how many educational institutions have started adopting Artificial intelligence to their curriculum? What then is the rationale behind this study?

It is disheartening to note that many educational institutions struggle to balance traditional management education with emerging technological competencies. This can be as a result of the huge financial outlay needed for projects of such magnitudes. Funding of tertiary education has been a major concern as unions have spent roughly two years embarking on strike actions for government to improve funding for tertiary institutions (Ido & Bassey,2016)..

The study is greatly significant as it will help analyze how Artificial intelligence can be embedded into business education programmes to enhance learning outcomes and prepare students for future leadership. The study will further help in understanding Artificial intelligence roles' in business education programmes to ensures that graduates remain competitive in industries that are increasingly shaped by automation and data-driven decision-making.

### **Concept of Artificial Intelligence**

Artificial intelligence (AI) refers to computer systems capable of performing complex tasks that historically only humans could do, such as reasoning, making decisions, or solving problems (Ido & Bassey, 2015). Artificial intelligence (AI) to Bassey, et al. (2024) 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. AI 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 actually constitute artificial intelligence. Instead, some argue that much of the technology used in the real world today actually constitutes highly advanced machine learning that is simply a first step towards true artificial intelligence, or “general artificial intelligence” (Coursera, 2026). According to Clouds (2026), Artificial intelligence (AI) is a set of technologies that empowers computers to learn, reason, and perform a variety of advanced tasks in ways that used to require human intelligence, such as understanding language, analyzing data, and even providing helpful suggestions. It's a transformational technology that can bring meaningful and positive change to people and societies and the world. It encompasses many different disciplines, including computer science, data analytics and statistics, hardware and software engineering, linguistics, neuroscience, and even philosophy and psychology.

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## Concept of Business Education

In its early days, Nigeria Secondary Grammar Schools provided necessary skills training for graduates to enter into highly rewarding white-collar jobs. As economic activities later become more technologically driven and differentiated, new and distinct occupations emerged. The need then arose for people with various practical skills to carry out different tasks in government, industrial and commercial establishments. A special need was recognized however in the area of business and office occupations (Bassey & Akpan, 2026). The Ashby Report found that in 1960 there was a dearth of trained manpower such as secretaries, book-keepers and accountants as well as other types of the Nigerian economy. Similarly, the Dike Report (1961) noted the urgent need for increase in the output of trained copy typists, secretaries and numerous other office workers. The later report observed the growth in trade and commerce of Nigeria and advocated a systematic plan for training the right type of personnel through business education, to cope with the rapidly expanding economic activities of the country. Business education is a programme of instruction which consists of two parts which are subdivided into four units of Accounting, Office Technology and Management, Marketing and Entrepreneurship. The two major parts are:

- (1) Office Education is a vocational education programme for office careers through initial, refresher, and upgrading education, and
- (2) General business education is a programme meant to provide students with information and competencies which are needed by all in managing personal business affairs and in using the services of the business.

In Nigeria, business education was introduced by private indigenous proprietors. Records of private business schools date as far back 1930s the first private business school in Eastern Nigeria was established at Onitsha in 1836 by Joseph Etukokwu. The aim of establishing this school was to provide sound business education and arouse the enthusiasm of youths in commerce (Akpan, 2020). Although business schools have existed in Nigeria since 1930, their importance has not been appreciated. With the Government takeover of schools from private owners in 1970, significant changes occurred in the status and enrolment pattern of business schools. There was a sharp decrease in the number of new secondary schools since private citizens were barred from establishing new ones. As a result, the existing schools experienced acute shortage of students. States like Anambra, Lagos and Imo were faced with the problem of finding schools for the thousands of qualified candidates who sought admission into secondary schools. For examples, in 1977, out of 160,000 students who took the common entrance examination in Imo State, only 42,000 who scored 25 aggregate marks and above were admitted. Also, in Anambra State, only 30,000 who scored 23 points and above were admitted out of the 120,000 students who took the examination (Mbamalu, 2019).

To tackle the above problem, the Imo State Ministry of Education refused to admit students who were above the age of 14 into class I in the secondary schools in the State. This resulted in a spillover of candidates into the private business schools which were not affected by the government takeover of school. Business Schools, as a result, grew in number and size to accommodate the displaced students from secondary Grammar schools. The following reasons have been attributed to students' enrolment in Business schools: poor academics, low

fees charged and failure to gain admission into a grammar school. According to Mbamalu (2019), parent contends that business schools are meant for dullards. Parents erroneously believed that a business school is synonymous with a typing and shorthand institute where lower fees are paid. Business schools are also looked upon as a haven or stop-over for many students who quickly abandon the grammar school as soon as they gain admission into the grammar schools.

The quality of instruction, staff and equipment in business schools are usually considered substandard and inadequate which contribute to the unpopularity of courses offered in business schools. Many business schools do not have workshops and teachers were often grossly unqualified. Research has shown that poor funding, staffing, and lack of equipment, workshops and prejudice against business schools are the major causes of its unpopularity among students (Mbamalu, 2019). According to Mbamalu (2019), students who enroll in Business schools fell into one of six categories:

- (1) Business Students who have been previously employed or those who are currently employed and who want only a brief refresher course to upgrade their skills.
- (2) Those who are of secondary Grammar school age but who cannot afford the fees of such schools.
- (3) Those who could not pass the common entrance examination to grammar school.
- (4) Students who for some reason has to leave the secondary Grammar school.
- (5) Those who want only vocational training without having to take the General Education subjects.
- (6) Those who want to complete their training in the shortest possible time (Ebieme, et al., 2024).

As mentioned earlier, the need for Business Education was emphasized in the Ashby report. The commissioner stated that “there is clearly a dearth both in the public service and in the Business Community of trained secretaries, book-keepers and accountants to increasing number of school leavers, especially girls are forthcoming to take up this kind of work, the situation would become a desperate one for Nigeria.” There is a growing need for business knowledge, as consumers, Nigerians need increased business knowledge in order that they may select wisely from among vast quantities of goods and services. There has also been a constant increase in interest and in investment in securities as a result of the indigenization Decree. With passage of the indigenization Decree of March 31, 1974 Nigerians are participating actively in business activities and therefore need to acquire enough business knowledge to manage them. Today, people in all walks of life attach much importance to business education. Many Nigerians have come to realize that they need training and skills that can make them employable.

Employment requirements are changing due to technological advancement. Today, employers require business education as a pre-requisite for entry into and advancement in the world of work. Today, secondary school leavers and those without business education certifications experience difficulty in finding jobs. People’s attitudes toward business education

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appear to be changing. The aspirations of individuals for a better standard of living are higher today than ever before. People now look upon Business education as the means through which students may rise above the position of their parents.

It is obvious that individuals need business education to help them participate successfully in business as producer and intelligent consumer of goods and services. Education in the basic skill of reading, writing and computation is essential for individuals to function effectively in a comparative, democratic society. Application of those basic skills of life situations enhances consumership, economic survival, and quality of life. Those basic academic proficiency skills are the foundation of economic, vocational and academic proficiency. Although, all disciplines share responsibility to improve the teaching of these skills, business education has an obligation to support the development of the competencies involved. A private business school can be described as a school owned and operated by a private individual or groups of individuals that offers courses leading to the acquisition of the arts and skills employed in office work.

One of the very real advantages of the private business schools' is that the profit motive allows it to adapt its curricula offering rather easily to the changing needs of the students and the business community. Usually, the private business schools were among the first training institutions to provide instruction on data processing equipment. Private business school, relying on their own resourcefulness and financial means, were able to secure the necessary hardware for their instructional programmes before most publicly – supported schools could do so. Studies by Mbamalu (2019), Chijioke (2018), and Okoravo (2018) showed that nearly all private business schools offer free job placement services to students who complete training programmes with their schools.

Historically, Business Education has played an important role in the manpower development of nations. From their inception in the 19<sup>th</sup> century, independent business schools offered evening and weekend instruction for adults. In so many ways, business education helps in manpower development for any nation. It provides career guidance to adult students to increase their awareness of varied job opportunities and changing requirement for career entry and achievement. It provides training, which reflects changes in business brought about by technological advances. It meets the needs of the adults, including the handicapped and technologically advanced. It meets the needs of the adults, including the handicapped, disadvantaged and gifted. It prepares individuals for work in local business and other organizations as well as provides for wide ranging interest, abilities and goals of adult learners.

Business education represents a broad and diverse discipline that is included in all types of educational delivery system, elementary and secondary schools, colleges and universities. Business education can begin at any level. It can be interrupted for varying periods of time and it can be continued throughout the life span of an individual. Business education includes education for office occupations, distributions and marketing occupations, business teaching, business administration and economic understandings. Business education performs the following additional roles:

1. It educates individuals for and about business.
2. It provides a continuous programme of planned learning experiences designed to equip individuals to effectively fulfill three roles:

- (a) To produce and distribute goods and services as workers,
  - (b) To use the results of production as consumer, and
  - (c) To make judicious socioeconomic decisions as citizens.
3. It provides career information that help students relate their interest, needs, and abilities to occupational opportunity in business.
  4. It provides educational opportunities for students preparing for careers in field other than business to acquire business knowledge and skills needed to function effectively in those careers.

Business education has the capacity to develop programmes that respond to current societal issues such as education for improving basic computational skills, for meeting the needs of the bilingual and bicultural population, for eliminating occupational stereotyping, for assisting people with special needs and for helping the ordinary consumers to function effectively in the private enterprise system (Ido & Bassey, 2016)

### **AI as a Pedagogical Tool for teaching/learning of Business Education**

Artificial intelligence can function as a pedagogical tool for the effective delivery of business education contents to students in the following forms:

1. ***Personalized Learning of Business Education contents:*** Adaptive learning platforms in business education can use AI to tailor content to individual student needs. Example: Platforms like Coursera and edX employ AI algorithms to recommend courses and track progress.
2. ***Intelligent Tutoring Systems:*** AI tutors in business education can simulate case studies, guiding students through complex decision-making scenarios. These systems provide immediate feedback, reducing reliance on traditional grading cycles.
3. ***Data-Driven Insights for Business Educators:*** AI dashboards can help analyze business education students' performance, helping faculty identify struggling learners. Predictive analytics can forecast student success rates and recommend interventions.

### **Integration of Artificial Intelligence into Business Education Curricula**

#### ***Core Courses***

- i. ***Finance:*** AI-driven predictive analytics for stock market trends.
- ii. ***Marketing:*** Machine learning models for consumer behaviour analysis.
- iii. ***Operations:*** AI optimization in supply chain management.

***Specialized Tracks:*** Business schools now offer electives in AI strategy, digital transformation, and data science. Example: MIT Sloan's "Artificial Intelligence in Business" programme.

***Case Studies and Simulations:*** AI-powered simulations replicate real-world crises such as supply chain disruptions. Students practice decision-making in controlled, risk-free environments.

### ***Preparing Future Leaders***

***Decision-Making with AI:*** Leaders must learn to interpret AI-generated insights critically. Balance between algorithmic recommendations and human intuition.

***Ethics and Governance:*** AI raises concerns about bias, transparency, and accountability.

Business education must instill ethical frameworks for responsible AI use.

***Innovation and Entrepreneurship:*** AI enables startups to identify market gaps and develop disruptive solutions. Example: AI-driven fintech companies challenging traditional banking models.

### **Challenges in Adoption of artificial intelligence into business education**

The following are challenges envisaged in integrating artificial intelligence into business education programme:

1. ***Resource Constraints:*** High costs of AI infrastructure and faculty training may hinder the adoption of artificial intelligence into business education. As a result, smaller institutions may struggle to keep pace. It is recommended that the federal government improve upon the funding of tertiary institutions in Nigeria to meet the costs involved.
2. ***Curriculum Overhaul:*** Integrating AI requires rethinking of the traditional business education models. This can be more evident due to the risk of overemphasis on technology at the expense of foundational management principles.
3. ***Resistance to Change:*** Some business educators have this fundamental fear over-reliance on AI. Furthermore, concerns about diminishing human-centric teaching methods can even trigger this resistance. It is recommended that seminars and symposium be organized to help expose the business educators to the potentiality of artificial intelligence and how it can help business education produce technologically advanced graduates that would face the world of work squarely. This will help allay the resistance as a result if fears of the unknown.

### **Future Outlook in integrating artificial intelligence into Business Education Programmes**

Integrating artificial intelligence in business education would help develop;

- AI-Driven Classrooms
- Virtual assistants supporting both students and faculty.
- AI grading systems reducing administrative burdens.
- Interdisciplinary Learning
- Business education merging with computer science and data analytics.
- Joint degrees in “Business and AI” becoming more common.
- Global Collaboration
- AI enabling cross-border learning experiences.
- Virtual classrooms connecting students worldwide.

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