Enhancing Global Business Education through Artificial Intelligence Application

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Full Article

Abstract

In the dynamic realm of global business, education's evolution is imperative. This study explores the transformative impact of artificial intelligence (AI) in global business education. Leveraging AI tools such as computer vision, natural language processing, and machine learning, the research uses a mixed-methods approach, including virtual focus groups and surveys across various institutions. Findings reveal a correlation between educational backgrounds and attitudes towards AI in education. The study highlights the necessity of understanding AI's advantages and challenges in enhancing accessibility and personalized learning. Key recommendations include AI integration in teaching and assessment, with a focus on training educators and addressing privacy and gender diversity issues. Preparing students for AI-driven careers involves aligning curricula with industry needs and emphasizing soft skills. The study underscores the importance of collaboration between academic institutions, industry, and AI startups for curriculum development, advocating a comprehensive approach to AI integration in business education.

Keywords

AI, Artificial Intelligence, Technology, Education, AI in Education

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1. Introduction

For a considerable amount of time, people have held the belief that a business education is crucial to their success in the workforce. In an era of rapidly changing global market dynamics and rapid technological advancement, the need of business education has increased even further. The information, abilities, and skills needed to manage difficult work situations are imparted to learners. However, established approaches to teaching business education are facing hitherto unanticipated challenges as they attempt to adapt to the ever-changing demands of the corporate sector (Horáková et al., 2017)

Artificial intelligence (AI) has the potential to be a revolutionary force in many fields, including education. Artificial intelligence (AI)-based technologies have the potential to alter fundamentally how education is delivered and consumed. Among these technologies are computer vision, natural language processing, and machine learning. The need for flexible, individualized instruction as well as efficient resource management has fuelled the advancement of artificial intelligence (AI) in education. Artificial intelligence (AI)-powered tools and systems are already being used in classrooms, offering new chances to enhance teaching methods (Jibril et al., 2018).

Even with its continuous significance, business education faces several obstacles in keeping up with the dynamic needs of the contemporary corporate environment. These include the need for more dynamic and pertinent educational content as well as the obsolete curricular frameworks and the restricted scalability of traditional classroom instruction. It is also difficult to meet each student's unique learning demands. Furthermore, educators and educational institutions are under pressure to get pupils ready for a labour market that is becoming more technologically advanced and competitive (Chen et al., 2022).

One potential remedy for these issues is artificial intelligence. Educators may provide students customised learning experiences based on their individual strengths and limitations by utilising AI technology. Large data sets may be examined by AI-driven systems, allowing them to spot areas in which students might need extra help and to act quickly to address those needs. AI can also make it easier to produce current, industry-relevant information and make it possible to distribute training materials effectively to a large number of people (Sharma et al., 2022).

The use of AI in education is supported by several theoretical frameworks and models, according to (O. P. Choudhary et al., 2023). AI-powered educational systems are designed and

implemented with these frameworks in mind. The framework for comprehending how AI may improve learning is provided by theories such as cognitive load theory, adaptive learning, and intelligent tutoring systems. Teachers may be able to give students more effective and interesting learning experiences by fusing AI with these concepts.

Policymakers, business executives, and academic institutions must comprehend how artificial intelligence (AI) can be used to revitalise the business education system. The purpose of this study is to provide light on the potential applications of artificial intelligence (AI) in reviving business education and guaranteeing that graduates have the competencies required to succeed in the global business environment. It also examines how AI may enhance fairness, quality, and accessibility in education. This study looks at the challenges and potential uses of artificial intelligence (AI) in business education. The study looks at actual instances of AI being used in the classroom and discusses the moral and legal ramifications. The ultimate objective of the study is to offer suggestions and opinions to legislators, organisations, and educators (Zhao et al., 2019).

The study's objectives include evaluating the impact of AI on business education, particularly in terms of technological advancements in educational equity, accessibility, and teaching methods. It aims to identify and explore the hurdles encountered during AI integration into business education, addressing concerns such as privacy, ethical complexities, and resistance from academic staff. Furthermore, the study intends to formulate practical policy recommendations to enhance gender diversity, bridge AI knowledge gaps, and facilitate ethical AI integration, targeting legislators, academic bodies, and educators.

Key research questions include the impact of AI integration on aligning business education with international best practices and identifying the principal barriers to incorporating AI in business education. The study also seeks to understand how educational systems can evolve to meet the changing demands of the global corporate sector, potentially redefining traditional teaching methods. The findings offer specific legislative suggestions to address privacy concerns, reduce the gender gap in AI utilization, and promote ethical AI usage in education. By examining the advantages and challenges of AI use, the study contributes to a reevaluation of educational strategies, underscoring the need for more adaptable and accessible teaching methods in business education.

2. Literature review

A significant part of this research is the literature analysis, which examines the historical background of business education as well as the development of artificial intelligence (AI) in education. This part also establishes the framework for comprehending the current situation of business education and the ways in which artificial intelligence is changing the nature of instruction.

Business education has a history that dates back to the early 1900s. While researchers like Taylor (1911) focused on scientific management concepts, more participatory teaching methods were adopted later on, such as the case method, which is credited to Harvard Business School (Jellason et al., 2021). The literature has done an excellent job of documenting the changes in business education, such as the rise of online business education (Gridchina et al., 2023) and the addition of courses on innovation and entrepreneurship (Gupta et al., 2020). Since it was first developed, artificial intelligence has advanced greatly. AI is now used in many fields, including education, thanks to the theoretical groundwork established by the seminal work of individuals like Meng & Fu, (2020), as well as advancements in machine learning algorithms (Prokofieva, 2023) and natural language processing (Ren & Lan, 2021).

There's growing evidence that artificial intelligence (AI) could improve schooling. Numerous research has examined AI-driven learning platforms and adaptive learning systems (Lei & Liao, 2022). There has been substantial discussion about the value of AI in delivering tailored learning experience (Devi et al., 2020) and assisting teachers in their work (Bossman, 2016). According to A. Choudhary et al., (2023), experiential learning, multidisciplinary methods, and technological integration are now the main focuses of business education.

The literature has brought attention to the difficulties that traditional business education faces. Some, including Yang et al., (2023) have criticised traditional MBA programmes for not adequately preparing their graduates for obstacles they would encounter in the real world. We have looked at things like inflexible curricula, faculty members' aversion to change, and the need for more flexibility (W.S.S.Perera & Prabodha Lenora, 2022). According to studies, artificial intelligence (AI) technology is the answer to a lot of the issues that arise in business education. They promote data-driven decision-making (Chinonso et al., 2023), facilitate individualised learning (Dong et al., 2021), and increase engagement through adaptive material delivery (Muzychuk & Bychkova, 2020). The Theoretical frameworks that support AI in

education, such as the Cognitive Load Theory (Zhang et al., 2023) and the Intelligent Tutoring System (Xu & Jia, 2022), have aided the creation of AI-driven educational tools and platforms.

The literature study exploring the development of artificial intelligence (AI) in business education throughout history, as well as its wider applications in the field of education. It also examines the history of business education back to the of the 20th century, highlighting significant turning points, including the adoption of interactive teaching techniques like the case method by Harvard Business School and Taylor's scientific management perspectives. This historical background highlights how business education has changed from conventional models to its current condition, which is characterised by creative entrepreneurial courses and the rise of online learning. The paper simultaneously outlines the evolution of AI, highlighting the groundbreaking work of trailblazers such as Alan Turing and the progress made in machine learning and natural language processing, which demonstrate the fields' potential benefits for teaching.

Despite these developments, the assessment highlights the ongoing issues with traditional business education, particularly the complaints levelled at MBA programmes for not doing enough to appropriately prepare graduates for the demands of the real world. Examined concerns include inflexible curricular frameworks, faculty opposition to reform, and the demand for more flexibility. According to the research, artificial intelligence (AI) technology is a viable option that can enhance data-driven decision-making, enable personalised learning, and increase engagement through adaptive content delivery. Even with these encouraging possibilities, there is still a lack of comprehensive integration and real-world use of AI technologies in the educational system, indicating the need for more empirical research and confirmation of AI's ability to revolutionise corporate education methods.

3. Research Methodology

The research methodology is designed to provide efficient, comprehensive, and rapid data collection. It employs an online hybrid methodology that combines methods from both qualitative and quantitative research. The online research designs use digital platforms to collect primary data through a range of channels, including emails, web-based links, online surveys, online focus groups, and click streams captured, while users interact with Google Form pages.

3.1 Data Collection Methodology Online Data Collection

Digital surveys and questionnaires are used to collect responses from respondents in order to collect primary data online. Virtual Focus Group: To facilitate in-the-moment discussions and the gathering of qualitative data, participants in faraway locations can participate in virtual focus interviews conducted by Google Meet. Selected Institutions: The London School of Business Education, the University of Nigeria, Lagos State University, University of Abuja, and Enugu State University are among the institutions that the study is focused on. These organisations present a range of viewpoints about the research questions.

3.2 Gathering data

First Sequence Focus Group: To gain qualitative insights into the study topics, focus groups are conducted with participants from the London School of Business Education. Structured Questionnaire Development: Structured closed-end questionnaires are developed based on insights obtained from focus groups. The second stage of data collecting involves the distribution of questionnaires to 250 persons which are divided into three groups: administrators, teachers, and students from the chosen institutions.

3.3 Analysis of data

The researchers employ a variety of statistical techniques to examine the collected data to get meaningful insights by using the subsequent methods:

Typical Statistics To gather and present the data, base descriptive statistics like frequencies and percentages are generated.

Cross-Tabulation: To look for patterns and correlations between the variables, we use cross-tabulation.

3.4 Analysis of data

Figures present the analytic output for improved reading, understanding, and interpretation. These figures offer a structured overview of the findings, making it easier to make inferences and glean information from the data.

180 160 140 120 100 80 60 40 20 0 MALE FEMALE **EDUCATIONAL BACHELOR OF** MASTERS DOCTORAL BACKGROUND SCIENCE (BSC) DEGREE Table 1: Socio-Demographic data Frequencies Table 1: Socio-Demographic data Percentages

87

4. Results and Findings



The demographic data of the survey participants is displayed in figure 1. It demonstrates that the majority of the sample is made up of women (65.6%) as opposed to males (34.4%), and that most of them have either finished a Bachelor of Science (42.4%) or a Master of Science (36.0%) course in higher education.

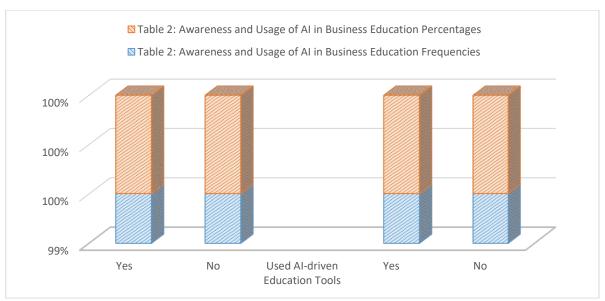


Figure 2. Awareness and Usage of AI in Business Education

The application of AI in business education and the level of knowledge surrounding it are the primary topics of this figure 2. According to the survey, 27.2% of participants had first-

hand experience with AI-driven educational tools or platforms, while 31.2% of respondents were aware of AI uses in business education.

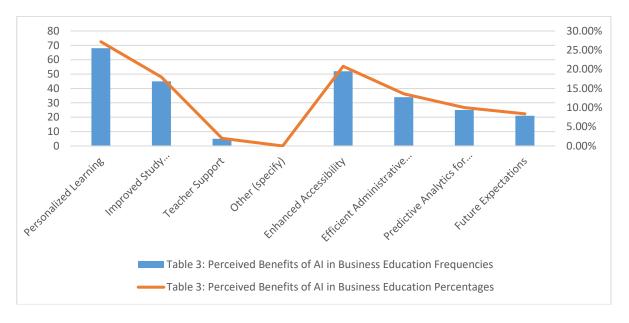


Figure 03. Perceived Benefits of AI in Business Education

The benefits of incorporating AI into business education are shown in figure 3. The two most commonly mentioned benefits are "Enhanced Accessibility" (28.8%) and "Personalised Learning" (27.2%). The beneficial effect of "Improved Student Assessment" (18.0%) is also considered noteworthy, even if "Teacher Support" (2.0%) is noted less frequently.

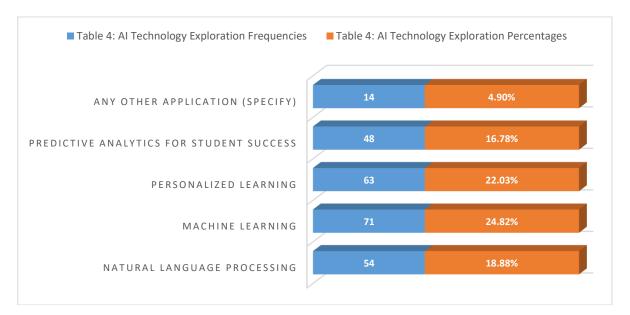


Figure 4. AI Technology Exploration

Examining AI Technology: When questioned about their research into AI technology, respondents provided specifics. The technologies that are most often explored include machine learning (71 respondents, 24.82%), natural language processing (54 respondents, 18.88%), and personalised learning (63 respondents, 22.03%).

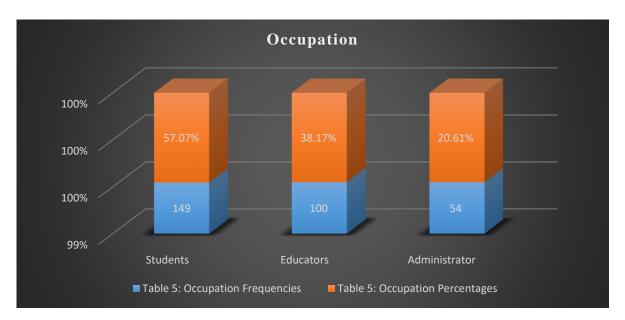
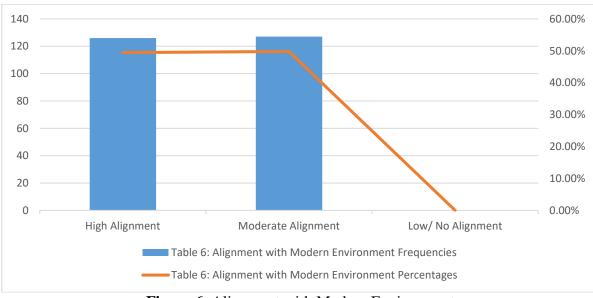
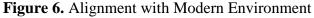




Figure 5 presents the distribution of occupations among the participants: the majority of respondents (57.07%) are students, followed by educators (38.17%) and administrators (20.61%). The information that is currently available suggests that a diverse group of people took part in the survey, with students making up the largest group and educators and administrators coming in second and third.





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The respondents' evaluations of how well their methods of business education fit into the contemporary setting are shown in figure 6. The overwhelming majority of respondents (49.41%) think that their teaching strategies are very much in line with contemporary culture. An almost equal percentage (498%) believes that there is a moderate degree of alignment. None of the interviewees believed that their approaches were insufficient or completely out of step with contemporary culture. The findings demonstrated that most respondents believed educational strategies were somewhat well-suited to the demands of the contemporary environment.

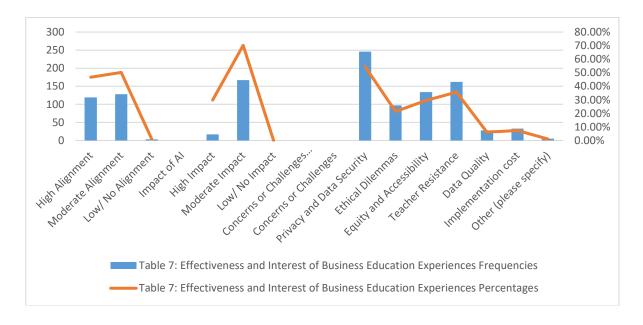


Figure 7. Effectiveness and Interest of Business Education Experiences

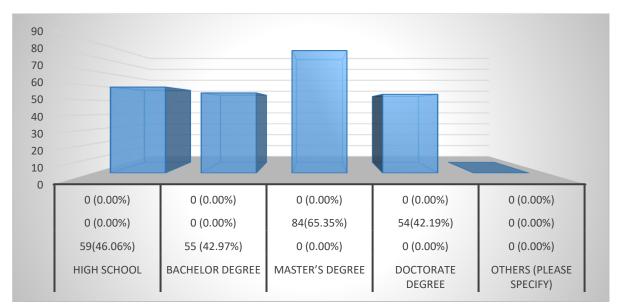
The popularity and level of satisfaction with business school experiences are shown in figure 7. The majority of participants (50.20%) saw a modest degree of congruence between efficacy and interest. Of those polled, 46.69% believe there is substantial alignment. The percentage (1.18%) indicating little to no alignment is rather low. The findings indicate that most respondents thought their experiences with business education had been either moderately or extremely effective and engaged AI's impacts, while a tiny minority indicated a poor degree of alignment. The respondents' perspectives about AI's impact on business education are displayed in figure 7. The majority (70.18%) think AI has an impact on how business education is provided. A smaller but equally significant percentage (29.82%) believes that the impact is substantial. Not a single respondent cited AI having little to no effect. According to the statistics, the majority of respondents think AI is improving business education, and they mostly credit model impacts for this belief. Figure 7 provides more

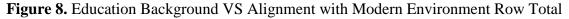
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clarification on the issues and difficulties of AI in business education. Data security and privacy are the two main issues (54.41%). Notable challenges include teacher opposition (35.71%) and ethical concerns (21.43%). A lower proportion of respondents (6.18%) expressed concerns about data quality, while 7.28% expressed concerns about implementation costs. Merely 1.10 percent of participants raise supplementary issues that remain unresolved despite the offered solutions.

The study finds that while respondents had a range of worries about AI in business education, the most common ones are related to data security and privacy. All things considered, these interpretations offer fascinating perspectives and ideas from the participants on AI in business education, which may be useful in comprehending the prospects and limitations related to this subject. To respond to research question two (2), which asks, "how can these challenges be addressed and how do regulatory, ethical, and privacy concerns impact the implementation of AI in educational settings"? According to the study, teacher opposition (35.71%) and ethical quandaries (21.43%) are the top concerns, followed by privacy and data security (54.41%).

These worries are significant because they might affect the deployment of AI in educational environments. Academic institutions might implement stringent data protection procedures, offer moral education, and include instructors in the AI integration process to lessen paradoxes in order to allay these worries.





Now let's look at a chi-squared test to determine the relationship between Alignment with the Modern Environment and Educational Background. utilising figure 8 of the contingency results. (Chi-squared test statistic: 157.7811; p-value less than 0.0001); Degree of Freedom:

We reject the "Alignment with the Modern Environment and Educational Background" because there is no significant relationship since the p-value is less than 0.005, which is usually considered as the significance level. This suggests that Alignment with the Modern Environment and Educational Background have a substantial link. Stated differently, there exists data indicating that varying educational backgrounds are linked to varying degrees of conformity with the contemporary business education landscape.

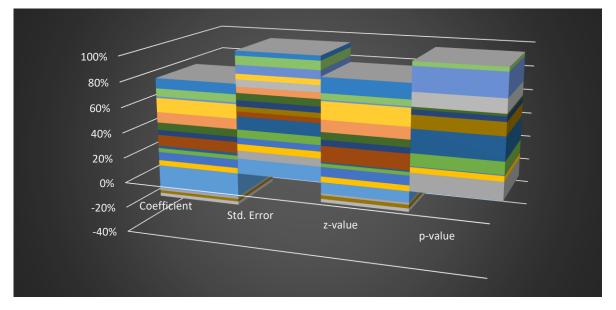


Figure 9. Logistic Regression

Given that it provides information on the link between a number of variables and the "Effectiveness and interest of Business Education Experience," logistic regression figure 9 will be examined in light of the research questions.

How much does integrating AI into business education aid in bringing teaching methods into line with international best practices? The "Familiar with AI (Yes)" variable in the logistic regression table shows that respondents who are acquainted with AI and selected "Yes" are more likely to believe that business education practices are closely aligned with international best practices, with a coefficient of 0.852 and a p-value of 0.0002. This illustrates the highly advantageous relationship between AI knowledge and teaching approaches that

follow international best practices. The positive coefficient indicates that the probability of detecting meaningful alignment rises with increased AI familiarity.

What innovative and engaging ways may artificial intelligence (AI) technology such as computer vision, natural language processing, and machine learning be applied to create more efficient and engaging business education programmes? The elements related to the study of AI technology are extremely significant predictors of high alignment with experiences in business education, as shown by logistic regression figure 9. The variable (s) "AI Technology Exploration (Personalised Learning)" shows that persons who look into personalised learning using AI are likely to think that corporate education practises and their own goals are closely linked, with a p-value of 0.0000 and a coefficient of 1.102. This implies that there is a positive relationship between the allure and efficacy of business education experiences and AI technologies, particularly personalised learning.

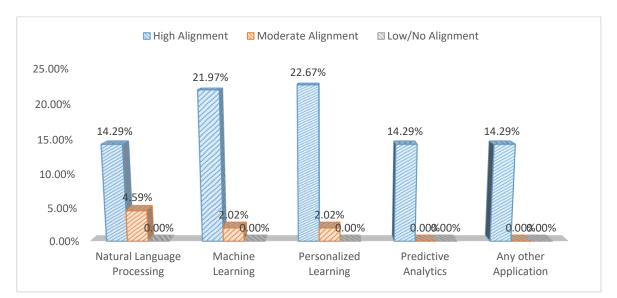


Figure 10. AI in Business Education VS Alignment of Educational Practices with Global Best Practices

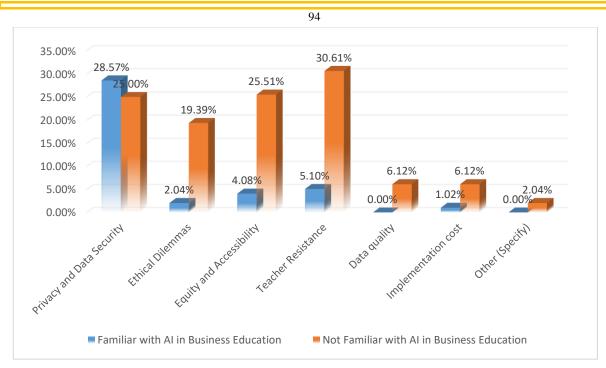


Figure 11. Regulatory, Ethical, and Privacy Concerns VS AI in Education Setting

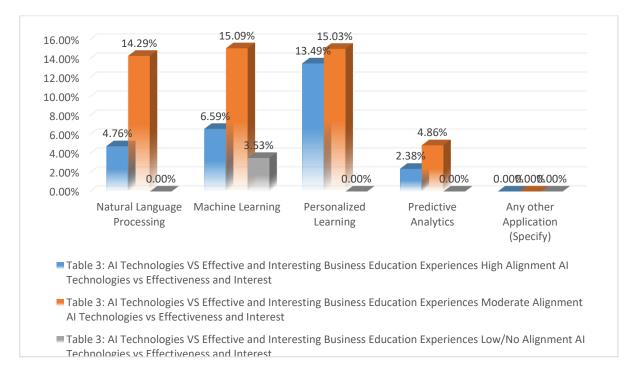


Figure 12. AI Technologies VS Effective and Interesting Business Education Experiences

The figure "AI in Business Education vs. Alignment of Educational Practises with Global Best Practises" shows a strong positive correlation between "High Alignment" and "Machine Learning" in educational practices. Thus, the integration of AI in business education results in this notable level of alignment between teaching approaches and international best practices.

For people who are knowledgeable with AI, "Privacy and Data Security" is a top issue, according to the table "Regulatory, Ethical, and Privacy Concerns vs. AI in Educational Settings". Additionally, it suggests that those who are unfamiliar with AI are more likely to have "Ethical Dilemmas" and "Teacher Resistance". This validates the notion that issues have a major influence on the application of AI in educational settings and that these issues are reversible.

Personalised learning and machine learning are the most often stated AI technologies in the "AI Technologies vs. Effective and Interesting Business Education Experiences" table, for both the "High Alignment" and "Moderate Alignment" categories. This is consistent with the theory that artificial intelligence (AI) technology has a major impact on the creation of more engaging and successful business education courses. Across the three study goals and the research questions, there is a substantial correlation between the use of AI in business education, concerns about AI in educational settings, and the impact of AI technology on successful and interesting business education experiences.

5. Discussion on Findings

The demographic table reveals that the majority of respondents were female, which is in line with the general trend of more women choosing to pursue higher education worldwide. A significant proportion of these individuals has advanced degrees, many of them being Master's or Bachelor of Science holders. Their educational experiences most likely have an impact on how students perceive AI in the classroom. This is in line with the general trend of more women enrolling in postsecondary education, which has generated a lot of study about its implications for women's educational equity (Uddin et al., 2023)

Over 25% of participants had direct experience using AI-powered educational technology, according to the AI Knowledge and Application section. This suggests that there is a significant degree of exposure to these tools in the classroom. Moreover, over thirty percent acknowledge the application of AI in business education, which has prompted a reassessment of the technology's advantages and drawbacks. This is in line with other research on how instructors' and students' knowledge influence the adoption of AI technology in educational settings (Luo et al., 2020).

Enhanced accessibility and personalised learning are the two primary benefits of artificial intelligence in education. These results align with previous studies that demonstrate AI's ability to tailor learning to individual students' requirements. The emphasis on "Improved Student Assessment" lends credence to the notion that AI may enhance the processes of evaluation and feedback. Notably, the study places less focus on "Teacher Support," suggesting that this could be an area that needs greater attention. These findings are in line with other studies that emphasise flexibility and customisation as AI's key components in education (Prof & Assenova, 2020).

5.1 Policy Recommendation

To bridge the information gap on the application of AI in the classroom, proactive initiatives directed at educators and administrators are required. By teaching people about the practical applications of AI, we may be able to bridge the awareness gap and achieve true integration. Considering that women made up the majority of research participants, it is critical that academic institutions and policymakers continue to support gender diversity in business education. Initiatives should be focused on developing programmes that encourage more male participation and inclusion in this field at the same time.

Regarding privacy and data security, AI education must ensure the ethical management of student data through detailed criteria. AI decision-making ethics training is a necessary for educators and administrators. AI-related ethical dilemmas can be resolved with the use of ethics education included into business curricula. One way to alleviate concerns regarding implementation costs is to consider more cost-effective choices such as collaborating with AI providers and utilising open-source AI technologies.

Curriculum at business schools must be adjusted to meet the ever-evolving demands of the global business world. When AI-related knowledge and abilities are integrated into courses, students are more equipped for careers that will be influenced by the technology. Stressing soft skills like communication and problem-solving is equally important. Innovative teaching methods may be produced by utilising AI tools like machine learning, computer vision, and natural language processing. When academic institutions, corporate leaders, and AI companies collaborate, they may share best practices, fund research initiatives, and establish curricula that reflect changes in the industry. By identifying students' areas of strength and weakness, AI-driven systems may also offer individualised instruction, enabling

students to improve their abilities and obtain expert assistance. Additionally, they can enhance assessment protocols to ensure that learning objectives are met.

5.2 Conclusion

The study's finding underscores significant trends in education and AI integration. With a majority of female respondents and high educational attainment among participants, there's a clear link between their educational backgrounds and perspectives on AI in education. This aligns with broader trends of increased female enrolment in higher education, emphasizing the importance of addressing gender diversity in academic settings. It also indicates a need for educational initiatives tailored to close the knowledge gap regarding AI integration in classrooms.

The data highlights considerable exposure to AI-powered educational tools among participants, suggesting a growing familiarity with these technologies. Yet, there's still room for improvement in understanding AI's potential benefits and limitations, especially regarding personalized learning and enhanced accessibility. The study's emphasis on theses area echoes prior research highlighting AI's role in tailored education and assessment enhancement while pointing to a potential need for increased support mechanisms for teachings.

The policy recommendations advocate for proactive educational efforts targeting educators and administrators to bridge the knowledge gap on AI's classroom applications. Promoting gender diversity in business education remains crucial, emphasizing the need for initiatives to enhance male engagement. Moreover, addressing privacy concerns through ethical data management standards and ethical AI training for educators and administrators is essential. Aligning business school curricula with industry demands, integrating AI-related skills, and fostering soft skills are key to preparing students for AI-impacted professions.

Collaboration between academic institutions, industry stakeholders, and AI startups is vital to exchange bast practices, support research, and develop curricula aligned with industry advancements. Leveraging AI-driven system for personalized training and improved evaluation process, ensures that learning goals are met while enhancing students' skill based on individual needs. These policy recommendations offer comprehensive strategies to address the evolving landscape of AI integration in business education.

5.2 Authors Contributory Statement

This study's direction was greatly influenced by the authors' combined efforts. A key contributor to the study's conception and design was Helen Mwuese Kwaghtsulesega, who created the study's essential framework for investigation. Ogochukwu Christiana Anyanwu carefully managed data arrangements, guaranteeing the accuracy and arrangement of vital study data. Divine N. Obodoechi led the complex process of deciphering and interpreting the findings, highlighting important details. Furthermore, Ogochukwu Christiana Anyanwu and Helen Mwuese Kwaghtsulesega worked together to draft the manuscript, utilising their combined knowledge to mould the study's narrative. Each author carefully reviewed and edited the manuscript, demonstrating their shared commitment to the findings and insights of the research.

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