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Editor'sNote

This volume presents a focused and contemporary contribution to business and entrepreneurship education, with strong empirical evidence drawn largely from universities, and related contexts across Nigeria, and beyond. The articles explore emerging themes such as artificial intelligence integration, e-learning, entrepreneurship training, curriculum relevance, pedagogical innovation, and enterprise development within higher education systems. The collection reflects the growing intersection between technology, pedagogy, and entrepreneurial outcomes, while also addressing practical concerns such as poverty reduction, market sustainability, and small business performance. The institutional coverage highlights the University of Calabar, University of Cross River State, and other affiliated academic and professional environments, reinforcing the regional relevance and broader applicability of the findings.

The journal invites scholars, researchers, and practitioners to contribute high-quality manuscripts that advance knowledge in business education, entrepreneurship, digital transformation, and related disciplines. Submissions that offer empirical rigor, theoretical advancement, and practical relevance to developing and global education systems are particularly encouraged.

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AI ADOPTION IN BUSINESS EDUCATION: BARRIERS, INSTITUTIONAL DYNAMICS, AND STRATEGIC PATHWAYS AMONG BUSINESS EDUCATORS IN NIGERIAN PUBLIC UNIVERSITIES

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Abstract

Artificial Intelligence (AI) is reshaping higher education globally, yet its adoption in business education within developing contexts remains uneven. This study examines the determinants of AI adoption among business educators in Nigerian public universities, with emphasis on technological, human, and institutional factors. Anchored on the Unified Theory of Acceptance and Use of Technology (UTAUT), the study conceptualizes AI adoption as a function of ICT infrastructure, digital literacy, institutional policy, and leadership support. A descriptive survey design was employed with a sample of 169 respondents drawn from a population of 300 business educators using stratified random sampling. Data were collected through a structured questionnaire and analysed using descriptive and inferential statistics. Findings indicate that ICT infrastructure and digital literacy significantly influence AI adoption, while institutional policy and leadership support serve as critical enabling conditions. The study further reveals that resistance to change and professional identity concerns mediate adoption behaviour. The study contributes to theory by extending UTAUT within a developing-country higher education context and provides practical insights for institutional transformation. It concludes that sustainable AI integration requires a systemic approach combining infrastructure development, faculty capacity building, and policy reform.

Keywords: Artificial Intelligence, Business Education, Technology Adoption, Digital Literacy, Institutional Policy, UTAUT

Introduction

Artificial Intelligence has emerged as a transformative force in contemporary higher education, reshaping teaching, learning, research, and institutional governance. Across advanced and emerging economies, universities increasingly deploy Artificial Intelligence driven systems such as intelligent tutoring platforms, predictive analytics, automated assessment tools, and adaptive learning environments to enhance instructional effectiveness and student outcomes. Within business education, Artificial Intelligence plays a particularly strategic role by supporting data driven decision making, financial modelling, simulation based learning, and digital

entrepreneurship development. Universities in developed and emerging contexts are progressively integrating Artificial Intelligence into business programmes to equip learners with digital competencies, innovation skills, and adaptive capacities required in technology driven economies (UNESCO, 2021; OECD, 2022; World Economic Forum, 2023). In addition,

Artificial Intelligence applications such as intelligent learning management systems, learning analytics, financial forecasting, supply chain simulations, and virtual business environments are redefining pedagogical practices and enhancing instructional efficiency (Holmes et al., 2019; Zawacki Richter et al., 2019). These developments underscore a broader shift from traditional content transmission toward data driven, adaptive, and experiential learning systems.

Despite these advancements, the integration of Artificial Intelligence in higher education remains uneven, particularly in developing contexts. In Nigeria, structural constraints including inadequate ICT infrastructure, unstable power supply, limited broadband access, insufficient funding, and weak institutional frameworks continue to hinder the adoption of emerging technologies (Federal Ministry of Education, 2020; UNESCO, 2022). These challenges are more pronounced in public universities, where systemic inefficiencies and bureaucratic governance structures slow digital transformation processes. As a result, the implementation of Artificial Intelligence remains fragmented and limited in scope, thereby constraining its potential to transform teaching, learning, and research practices.

Business education occupies a critical position in this transformation due to its direct linkage with industry, entrepreneurship, innovation ecosystems, and labour market demands. As economies become increasingly digital, business educators are expected to equip learners with competencies in analytics, automation, and intelligent systems. However, the extent to which Artificial Intelligence is integrated into business education depends largely on educators' readiness, institutional support, and technological capacity. The adoption of Artificial Intelligence is not merely a technical process but a socio technical phenomenon shaped by human, institutional, and cultural dynamics. Educators' perceptions of Artificial Intelligence, their digital competencies, and their willingness to adapt pedagogical practices significantly influence adoption outcomes. Empirical studies indicate that resistance to change, low digital competence, and concerns about technological displacement and professional authority often slow the adoption of emerging technologies in universities (Teo, 2015; Venkatesh *et al*., 2016; Bond *et al*., 2021). Within this context, public universities in Nigeria operate within a complex socio institutional environment characterized by limited digital infrastructure, funding constraints, and uneven access to technological resources. These contextual realities intensify the challenges associated with Artificial Intelligence adoption in business education. Beyond infrastructural limitations, deeper socio cultural and institutional barriers such as technophobia, professional identity concerns, generational digital divides, limited Artificial Intelligence literacy, policy ambiguity, and weak institutional support systems shape how educators perceive and engage with Artificial Intelligence technologies (Selwyn, 2019; Williamson, 2017). Furthermore, the adoption of Artificial Intelligence raises broader concerns relating to ethics, data governance, academic autonomy, algorithmic bias, and professional relevance. The absence of clear institutional policies and ethical guidelines further deepens uncertainty and risk perceptions associated with Artificial Intelligence integration in teaching and learning environments (Floridi *et al*., 2018; UNESCO, 2021).

Against this background, the challenge of Artificial Intelligence adoption in business education is not simply a problem of technology availability but a complex interaction of

technological, human, institutional, and cultural factors. Although existing studies have explored technology adoption in higher education, limited empirical attention has been given to Artificial Intelligence adoption in business education within Nigerian public universities.

More importantly, there is a lack of theory driven investigations that integrate these multidimensional determinants of adoption. This study addresses this gap by examining Artificial Intelligence adoption among business educators through a Unified Theory of Acceptance and Use of Technology based framework, thereby providing both theoretical and practical insights into digital transformation in higher education.

This study is anchored on the Unified Theory of Acceptance and Use of Technology (UTAUT), a widely validated model for explaining technology adoption behaviour in organizational and educational contexts. UTAUT posits that individuals' acceptance and use of new technologies are primarily determined by four core constructs: performance expectancy, effort expectancy, social influence, and facilitating conditions. Performance expectancy reflects the degree to which individuals believe that using a technology will enhance their job performance, while effort expectancy relates to the perceived ease of use. Social influence captures the extent to which individuals perceive that important others believe they should use a particular technology, and facilitating conditions refer to the availability of organizational and technical resources that support technology use.

In the context of Artificial Intelligence adoption in business education within Nigerian public universities, these constructs provide a robust analytical lens for understanding educators' behavioural intentions and actual usage patterns. However, given the structural and institutional peculiarities of developingcountry higher education systems, the classical UTAUT framework requires contextual adaptation. Accordingly, this study extends UTAUT by incorporating variables that reflect the realities of the Nigerian university environment, particularly in Nigeria. Specifically, ICT infrastructure is conceptualized as a critical component of facilitating conditions, reflecting the extent to which universities provide the technological resources necessary for AI integration. Digital literacy is aligned with effort expectancy, as educators' competence in using digital tools directly influences their perception of AI as easy or difficult to use. Institutional policy is introduced as an extension of organizational support structures, capturing the role of formal guidelines, regulatory frameworks, and strategic direction in shaping adoption behaviour. Leadership support is positioned within the domain of social influence, emphasizing the role of institutional leaders in fostering a culture of innovation, providing motivation, and legitimizing the use of AI in teaching and learning. By integrating these context-specific variables into the UTAUT framework, the study develops a more comprehensive model for explaining AI adoption in business education. This extended framework acknowledges that technology adoption in developing contexts is not solely driven by individual perceptions but is also significantly shaped by institutional capacity, governance structures, and systemic constraints.

Artificial Intelligence technologies are increasingly integrated into higher education systems to enhance personalized learning, automate administrative processes, and improve research productivity. Contemporary scholarship consistently positions Artificial Intelligence as a transformative force capable of reshaping pedagogical models from traditional instructor centred approaches to adaptive, data driven, and learner centred environments. Foundational studies by Holmes *et al*. (2019) and Zawacki Richter et al. (2019) emphasize that Artificial Intelligence has redefined instructional delivery through intelligent tutoring systems, learning analytics, and automated assessment mechanisms. Similarly, Luckin*et al*. (2016) and Wang and Hannafin (2020) highlight the role of Artificial Intelligence in enabling personalised

learning pathways, predictive modelling of student performance, and enhanced feedback systems. Globally, leading universities have integrated Artificial Intelligence into curricula and instructional practices to strengthen graduate employability and foster innovation driven learning ecosystems (OECD, 2022). These developments reflect a broader shift in higher education toward digital transformation, where Artificial Intelligence functions not only as a pedagogical tool but also as a strategic asset in institutional competitiveness. Beyond teaching and learning, Artificial Intelligence is increasingly applied in research through data mining, automated literature synthesis, and machine learning based analytical tools, thereby expanding the scope and efficiency of academic inquiry.

Despite its transformative potential, the adoption of Artificial Intelligence in higher education is uneven and often constrained by structural, institutional, and ethical challenges. Empirical studies indicate that infrastructural limitations including inadequate hardware, unreliable internet connectivity, and insufficient technical support remain significant barriers, particularly in low and middle income contexts (Bagalkot and Kakkad, 2022; Selwyn, 2019). In addition, ethical concerns related to data privacy, algorithmic bias, transparency, and accountability continue to shape institutional attitudes toward Artificial Intelligence deployment (Floridi *et al*., 2018; Mittelstadt, 2019). Theoretical models such as the Technology Acceptance Model, the Unified Theory of Acceptance and Use of Technology, and the Diffusion of Innovations Theory (Rogers, 2003) have been widely applied to explain technology adoption behaviour in educational contexts. For example, Al Shamsi and Al Shamsi (2021) demonstrate that perceived usefulness, effort expectancy, social influence, and facilitating conditions significantly influence faculty adoption of Artificial Intelligence technologies. These frameworks underscore the importance of both individual perceptions and organizational conditions in shaping adoption outcomes.

Faculty related factors such as digital literacy, pedagogical readiness, and professional beliefs play a critical role in determining the extent of Artificial Intelligence integration. Studies by Ifenthaler *et al*. (2020) and Tarhini *et al*. (2019) reveal that educators with limited digital competencies are more likely to resist technological innovations. This resistance is often reinforced by concerns about professional identity, academic autonomy, and the perceived threat of technological displacement, particularly within established academic cultures (Selwyn, 2019; Venkatesh *et al*., 2016). Institutional readiness also emerges as a central determinant of successful Artificial Intelligence adoption. Leadership support, strategic policy frameworks, professional development opportunities, and effective change management structures are essential for fostering a conducive environment for innovation (Bond et al., 2021; O Shea *et al*., 2022). In the absence of coherent institutional policies and governance mechanisms, Artificial Intelligence adoption tends to be fragmented and unsustainable.

Within the Nigerian context, studies on digital transformation in higher education highlight persistent structural and policy related challenges. Adedoyin and Soykan (2020) identify inadequate funding, weak ICT systems, and limited digital literacy as major constraints. Similarly, Eze *et al*. (2021) report that faculty attitudes toward digital technologies are often shaped by scepticism and concerns about professional relevance, while Agabi *et al*. (2022) emphasize the role of weak institutional leadership and policy ambiguity in slowing technology adoption. In business education, Artificial Intelligence presents unique opportunities due to its alignment with data analytics, decision sciences, financial modelling, and digital business systems. Artificial Intelligence enabled tools such as predictive dashboards, simulation platforms, and virtual business environments enhance experiential learning and enable students to engage with real world

problem solving scenarios. These technologies support the development of analytical competencies, strategic thinking, and adaptive decision making skills required in contemporary digital economies. Empirical evidence indicates that Artificial Intelligence supported simulations improve student engagement and analytical performance (Chen *et al*., 2021), while Artificial Intelligence enhances research practices through automated data analysis, machine learning applications, and intelligent information retrieval systems (Radovanovic and Mandic, 2020). However, adoption within business education remains uneven compared to science and technology disciplines, largely due to limited exposure to computational methods and lower levels of technological integration within social science curricula (Ma and Lee, 2022).

The literature consistently identifies multiple barriers to Artificial Intelligence adoption encompassing technological, human, institutional, and ethical dimensions. Technological constraints include inadequate infrastructure, unreliable power supply, limited bandwidth, and restricted access to Artificial Intelligence tools. Human factors involve low digital literacy, resistance to change, technophobia, and concerns about professional identity. Institutional challenges include weak policy frameworks, insufficient leadership support, lack of strategic planning, and limited incentives for innovation. Ethical concerns such as data privacy, algorithmic bias, transparency, and accountability further complicate adoption processes by increasing uncertainty and risk perceptions. These barriers are particularly pronounced in public universities in Nigeria, where systemic limitations affect institutional readiness and capacity for technological innovation.

Although existing studies provide valuable insights into Artificial Intelligence adoption in higher education, they are largely descriptive and often fail to integrate technological, human, and institutional determinants within a unified analytical framework. Furthermore, there is limited empirical evidence focusing specifically on business education and the role of educators in shaping Artificial Intelligence adoption processes in Nigerian public universities. This study addresses this gap by adopting a theory driven approach that integrates key determinants of adoption within an extended Unified Theory of Acceptance and Use of Technology framework, thereby providing context specific and empirically grounded insights into Artificial Intelligence integration in business education.

The purpose of this study is to examine the factors that influence the adoption of Artificial Intelligence in business education within public universities in Nigeria, Nigeria. Specifically, the study seeks to understand how technological resources, digital competencies, institutional frameworks, and leadership support shape faculty engagement with AI tools and the integration of AI into teaching, learning, and research processes. By investigating these dimensions, the study aims to provide insights that can inform strategies for enhancing AI adoption, improving instructional effectiveness, and promoting digital transformation in business education. To achieve this purpose, the study is guided by the following specific objectives: first, to assess the extent to which ICT infrastructure predicts the adoption of Artificial Intelligence in business education; second, to determine how digital literacy among business educators influences the adoption of Artificial Intelligence; third, to evaluate the effect of institutional policy on the adoption of Artificial Intelligence; and fourth, to examine the ways in which leadership support enhances the adoption of Artificial Intelligence in business education. These objectives provide a structured framework for exploring the technological, human, and organizational factors that facilitate or constrain AI integration in higher education.

In this study, the investigation is guided by four central research questions that explore the factors influencing the adoption of Artificial Intelligence in business education. The first

question examines the extent to which ICT infrastructure predicts the adoption of Artificial Intelligence, recognizing that technological resources form the foundation for digital transformation. The second question considers how digital literacy among business educators influences the adoption process, acknowledging the critical role of faculty competence and familiarity with AI tools. The third question investigates the effect of institutional policy on AI adoption, highlighting the importance of strategic frameworks, guidelines, and governance in shaping technology integration. Finally, the fourth question explores the ways in which leadership support enhances the adoption of Artificial Intelligence, emphasizing the influence of institutional vision, administrative commitment, and professional encouragement on successful implementation. Together, these questions provide a comprehensive lens for understanding the human, technological, and organizational determinants of AI adoption in public university business education programs

Drawing from this theoretical positioning, purpose, these specific objectives and the questions raised, the study advances the following hypotheses:

H1: ICT infrastructure significantly predicts Artificial Intelligence adoption in business education.

H2: Digital literacy significantly influences Artificial Intelligence adoption among business educators.

H3: Institutional policy has a significant effect on Artificial Intelligence adoption.

H4: Leadership support significantly enhances Artificial Intelligence adoption.

These hypotheses collectively reflect the multidimensional nature of AI adoption, capturing the interplay between technological readiness, human capacity, and institutional dynamics. The framework thus provides a theoretically grounded basis for examining how business educators engage with AI and the conditions under which adoption can be effectively promoted.

Method

This study adopted a descriptive survey research design to explore the perceptions, attitudes, and experiences of senior faculty members regarding Artificial Intelligence adoption in business education. The target population comprised 300 senior faculty members, including professors, associate professors, and senior lecturers, within the business faculties of public universities in Nigeria. A sample size of 169 respondents was determined using the Krejcie and Morgan (1970) table for finite populations. To ensure adequate representation across academic ranks and institutions, a stratified random sampling technique was employed. This approach allowed for the inclusion of perspectives from professors, associate professors, and senior lecturers in proportions reflective of their distribution across the universities. Data were collected using a structured questionnaire developed from the existing literature on Artificial Intelligence adoption in higher education. The instrument employed a four-point Likert scale ranging from one, indicating strong disagreement, to four, indicating strong agreement. The questionnaire was subjected to validation by three experts in educational technology and business education to establish content and construct validity. Additionally, a pilot study involving twenty faculty members outside the main sample was conducted to assess reliability, with a Cronbach's alpha coefficient of 0.80 or higher considered acceptable. Quantitative data were analyzed using descriptive statistical techniques. Measures

of central tendency, variability, frequency, and percentage were used to summarize senior faculty perceptions of barriers and strategies for Artificial Intelligence adoption. This methodological approach allowed for a clear and systematic understanding of the factors influencing adoption within the study context.

Results

The study was guided by four research questions. Each research question was answered using data collected from senior faculty members through a structured questionnaire. Responses were analyzed using descriptive statistics, with mean scores and standard deviations calculated to determine the extent of perceived barriers, influencing factors, institutional effects, and strategies for enhancing AI adoption in business education.

Research question 1

To what extent does ICT infrastructure predict the adoption of Artificial Intelligence in business education?

Analysis of faculty responses indicates that ICT infrastructure plays a critical role in predicting AI adoption in business education. Respondents highlighted limitations in hardware, software, connectivity, and access to AI tools as key constraints that hinder effective integration. Table 1 presents the mean scores and standard deviations for each aspect of infrastructural adequacy. The findings suggest that robust ICT infrastructure is a necessary condition for the successful adoption of AI, with inadequate infrastructure, unstable power supply, and limited access to AI resources identified as the most significant barriers.

Table 1: Extent ICT infrastructure predict the adoption of Artificial Intelligence in business education

ICT infrastructure	Mean	SD	Remark
Inadequate ICT infrastructure	3.65	0.52	High
Unstable power supply	3.52	0.61	High
Limited access to AI tools/software	3.48	0.59	High
Lack of technical support	3.35	0.64	High
Funding constraints	3.30	0.70	High

The results indicate that inadequate ICT infrastructure, unstable power supply, and limited access to AI tools and software are perceived as the most significant barriers to AI adoption, followed closely by insufficient technical support and funding constraints. These findings underscore the critical role of technological resources in facilitating effective AI integration.

Research question 2

How does digital literacy influence the adoption of Artificial Intelligence among business educators?

Analysis of faculty responses indicates that digital literacy significantly shapes the adoption of AI in business education. Respondents highlighted limited familiarity with digital tools, low competence in AIrelated software, and reluctance to integrate technology into pedagogy as key constraints. Table 2 presents the mean scores and standard deviations for each human and pedagogical factor. The findings suggest that faculty with higher digital literacy are more likely to adopt AI effectively, whereas low digital

competence, technophobia, and resistance to change impede adoption.

Table 2: How digital literacy influence the adoption of Artificial Intelligence among business educators

Factor	Mean	SD	Remark
Limited digital literacy	3.55	0.57	High
Resistance to change	3.40	0.61	High
Technophobia	3.28	0.63	High
Fear of loss of professional authority	3.25	0.65	High
Fear of job displacement	3.18	0.68	High

These results indicate that digital literacy is a critical human factor influencing AI adoption. Faculty members' competence with digital technologies directly affects their ability and willingness to integrate AI into teaching and learning processes.

Research question 3

What is the effect of institutional policy and leadership support on the adoption of Artificial Intelligence in business education?

Analysis of faculty responses indicates that institutional policies and leadership support are critical determinants of AI adoption in business education. Respondents identified the absence of clear AI policies, weak leadership commitment, inadequate strategic planning, and limited incentives as key barriers that constrain the integration of AI tools and practices. Table 3 presents the mean scores and standard deviations for each institutional factor. The findings suggest that robust institutional policies and active leadership support facilitate adoption, while policy gaps, limited strategic guidance, and bureaucratic decision-making impede faculty engagement with AI technologies.

Table 3: Institutional policies and leadership support influencing ai adoption

Factor	Mean	SD	Remark
Absence of clear AI policies	3.62	0.55	High
Weak leadership support for AI	3.50	0.60	High
Inadequate strategic planning for AI	3.45	0.58	High
Lack of incentives for innovation	3.33	0.63	High
Bureaucratic decision-making	3.28	0.64	High

These results indicate that institutional policies and leadership support significantly influence the adoption of AI among business educators. Clear policies, proactive leadership, strategic planning, and incentive structures are essential for creating an enabling environment that encourages faculty to integrate AI into teaching and learning.

Research question 4

In what ways does leadership support enhance the adoption of Artificial Intelligence in business education?

Analysis of faculty responses indicates that adoption among business educators. Leadership

Table 4: Strategies for enhancing ai adoption through leadership support

Strategy	Mean	SD	Remark
Provision of adequate ICT infrastructure	3.70	0.50	Very High
Regular faculty training and professional development	3.65	0.52	Very High
Development of institutional AI policies	3.60	0.55	Very High
Leadership support and incentives	3.55	0.57	High
Funding and resource allocation for AI	3.50	0.59	High
Change management and awareness campaigns	3.45	0.60	High

Table 5: Regression analysis of predictors of AI adoption

Hypothesis	Predictor Variable	B	SE	β	t	p	Interpretation
H_1	ICT Infrastructure	0.412	0.065	0.381	6.34	0.000	Significant; supports H1. Robust infrastructure positively predicts AI adoption.
H_2	Digital Literacy	0.375	0.062	0.349	6.05	0.000	Significant; supports H2. Higher faculty digital competence enhances AI adoption.
H_3	Institutional Policy	0.328	0.058	0.301	5.66	0.000	Significant; supports H3. Clear policies and strategic guidance facilitate AI adoption.
H_4	Leadership Support	0.290	0.056	0.274	5.18	0.000	Significant; supports H4. Proactive leadership and incentives strengthen AI adoption.

leadership support plays a pivotal role in enhancing the adoption of AI in business education. Respondents highlighted that proactive leadership, provision of incentives, policy guidance, and advocacy for AI integration create an enabling environment for faculty engagement with AI tools and practices. Table 4 presents the mean scores and standard deviations for the strategies identified to enhance AI adoption. The findings suggest that leadership support is most effective when combined with adequate ICT infrastructure, continuous faculty training, clear institutional AI policies, and sufficient funding and resources.

These results indicate that effective leadership support, combined with institutional policies, infrastructure provision, and professional development, significantly strengthens AI engagement fosters faculty confidence, promotes the integration of AI in teaching and learning, and ensures the sustainability of digital transformation initiatives within public universities in Nigeria. In summary, the findings reveal that technological, human, and institutional factors, particularly leadership support, collectively shape the adoption of AI among senior faculty members. Addressing infrastructure gaps, enhancing digital competencies, developing clear policies, and promoting active leadership engagement are crucial for effective AI integration in business education within public universities.

Hypotheses testing

The study tested four hypotheses using multiple linear regressions to determine the extent to

which ICT infrastructure, digital literacy, institutional policy, and leadership support predict the adoption of Artificial Intelligence (AI) in business education. Table 5 presents the regression coefficients, standard errors, t-values, p-values, and interpretations aligned with each hypothesis.

The regression model was statistically significant ($F(4, 164) = 57.92$, $p < 0.001$) with an adjusted R^2 of 0.587, indicating that the four predictors collectively explain 58.7% of the variance in AI adoption among business educators.

Interpretation of findings

H1: ICT infrastructure significantly predicts AI adoption. Faculty responses indicate that access to hardware, software, stable connectivity, and AI tools is critical for integrating AI into teaching and learning.

H2: Digital literacy significantly influences AI adoption. Competence in digital technologies and positive attitudes toward AI enhance the likelihood of adoption, whereas low digital skills, technophobia, and resistance to change impede it.

H3: Institutional policy significantly affects AI adoption. Clear AI policies, strategic planning, and institutional guidance enable faculty engagement with AI technologies.

H4: Leadership support significantly enhances AI adoption. Active leadership, provision of incentives, and advocacy for AI integration create an enabling environment that fosters adoption and sustains faculty engagement.

In summary, the findings confirm that technological readiness, human capacity, and institutional support jointly determine the adoption of AI in business education. Addressing infrastructure gaps, enhancing digital literacy, implementing clear policies, and strengthening leadership engagement are essential for promoting effective AI integration in public universities in Nigeria.

Discussion of findings

The findings of this study indicate that the adoption of Artificial Intelligence (AI) in business education among senior faculty members in public universities in Nigeria is influenced by a combination of technological, human, and institutional factors. Analysis of Hypothesis 1 revealed that ICT infrastructure significantly predicts AI adoption in business education. Faculty responses highlighted that inadequate hardware; limited software, poor connectivity, and restricted access to AI tools constrain effective integration. This finding aligns with prior studies by Adedoyin and Soykan (2020) and Bagalkot and Kakkad (2022), who emphasize that technological readiness constitutes a critical precondition for successful AI adoption, particularly in developing-country contexts. The results underscore that without robust technological infrastructure, even faculty with high willingness or competence cannot effectively implement AI in teaching and learning. Regarding Hypothesis 2, digital literacy was found to

significantly influence AI adoption among business educators. Faculty members with higher competence in digital technologies and familiarity with AI-related tools were more likely to integrate AI into pedagogical practice. Conversely, technophobia, resistance to change, and concerns on professional authority inhibited adoption. These findings corroborate prior research by Ifenthaler et al. (2020) and Selwyn (2019), which demonstrates that educators' attitudes, skills, and readiness are essential determinants of technology integration. The results suggest that enhancing digital competencies and fostering positive faculty attitudes toward innovation are crucial human factors for AI adoption in business education. Hypothesis 3, which examined the effect of institutional policy, was also supported. The absence of clear AI policies, weak strategic planning, and lack of incentives were identified as significant barriers to adoption. These observations are consistent with the findings of Bond et al. (2021) and O'Shea et al. (2022), who argue that institutional readiness and policy clarity are critical for successful implementation of AI and other educational technologies. The results suggest that well-defined institutional frameworks, policy guidance, and incentive structures create an enabling environment that encourages faculty engagement with AI tools. Finally, Hypothesis 4 showed that leadership support significantly enhances AI adoption. Faculty perceptions indicate that proactive leadership, advocacy for AI integration, provision of incentives, and strategic oversight fostered greater adoption. This finding aligns with previous research emphasizing that leadership engagement, resource mobilization, and institutional advocacy are essential for overcoming barriers and ensuring the sustainability of digital transformation initiatives (Holmes et al., 2019; Venkatesh et al., 2016). The results highlight that leadership support is most effective when coupled with adequate infrastructure, professional development, and clear institutional policies.

Collectively, these findings confirm that AI adoption in business education is not merely a technological endeavor but a multidimensional process involving infrastructure, human capacity, policy, and leadership dynamics. Addressing these factors holistically is essential to enable senior faculty members to effectively integrate AI into business curricula. The study thus provides empirical support for a theory-driven, multidimensional approach to

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AI adoption in higher education, reinforcing the need for coordinated technological, pedagogical, and institutional interventions in public universities in Nigeria.

Conclusion

The study demonstrates that the adoption of Artificial Intelligence in business education among senior faculty members in public universities in Nigeria is determined by a complex interplay of technological, human, and institutional factors. Inadequate ICT infrastructure, limited digital literacy, absence of clear institutional policies, and weak leadership support significantly constrain the effective integration of AI into teaching, learning, and research. Addressing these barriers holistically is essential not only for enhancing instructional quality but also for equipping graduates with the competencies required to thrive in increasingly digital and AI-driven economies. The findings underscore that successful AI adoption is contingent on coordinated investments in infrastructure, capacity-building, policy formulation, and proactive leadership engagement.

Recommendations

Based on these findings, the study recommends the following:

1. Invest in robust ICT infrastructure, including stable internet connectivity, AI software platforms, and reliable power supply, to create a technological foundation that supports effective AI adoption.
2. Implement regular faculty training and professional development programs to enhance digital literacy, AI competency, and pedagogical readiness among senior faculty members.
3. Develop and enforce comprehensive institutional AI policies that guide ethical use, data governance, and integration strategies to ensure consistent and sustainable adoption.
4. Strengthen leadership support through incentives, recognition, participatory decision-making, and advocacy for digital innovation to foster an enabling environment for faculty engagement and AI integration.

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