

Artificial Intelligence in Strategic Management and Corporate Governance in Selected Tertiary Institutions in Imo State, Nigeria

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Abstract

Artificial Intelligence (AI) is a prevailing tool for driving strategic management and corporate governance of tertiary institutions in Nigeria, with the goal of transiting the quality of education from its current state to a desired future state. This study adopted the correlational survey research design and it was carried out in some selected tertiary institutions in Imo State, Nigeria with 200

purposefully sampled respondents comprising of 100 senior and 100 junior administrative staff of the selected Public Tertiary Institutions. The data for this study were collected via two researcher-made rating scales. The first is titled Artificial Intelligence and Strategic Management Questionnaire (AISMQ) and the second is Artificial Intelligence and Corporate Governance Questionnaire (AICGQ) which were reviewed and validated by three experts in relevant academic fields such as computer science, educational administration, planning, measurement and evaluation. The reliability was established using the test-retest method, and the scores were correlated using Pearson's Product Moment Correlation Coefficient, yielding reliability indices of 0.88 and 0.87, confirming high instrument reliability. The data were analyzed using the Pearson's correlation at a 0.05 level of significance and the results revealed a significant relation between artificial intelligence and strategic management and corporate governance respectively. The paper concluded that artificial intelligence offers Nigerian tertiary institutions a practical means of strengthening strategic management and corporate governance by converting fragmented institutional data into timely insight, improving decision-making, and enhancing oversight. It further recommended that university management and governing councils should use AI outputs to inform strategic decisions while maintaining collegial deliberation and professional oversight. This preserves academic autonomy and contextual judgment that algorithms cannot replicate.

Keywords: *Artificial Intelligence, Strategic Management, Corporate Governance, Tertiary Institutions*

Introduction

The integration of artificial intelligence into the core functions of higher education is no longer a speculative frontier but an operational reality reshaping how universities plan, decide, and account for their mandate. In Nigeria, where tertiary institutions contend with expanding student populations, constrained public funding, and heightened expectations for graduate employability and research output, the promise of AI intersects directly with the imperatives of strategic management and corporate governance. Strategic management in universities concerns the formulation and execution of long-term plans that align institutional resources with environmental demands, while corporate governance refers to the systems, principles, and processes by which these institutions are directed and controlled to ensure accountability, transparency, and stakeholder trust. When AI enters this space, it does not merely automate routine tasks; it alters the epistemic basis of decision-making, the distribution of responsibility, and the nature of oversight itself (Odoemana, 2019). Strategic management in Nigerian universities has relied on periodic planning cycles, committee deliberations, and retrospective analysis of performance indicators such as enrolment figures, graduation rates, and accreditation outcomes. These processes, though essential, are often hampered by data fragmentation, delayed reporting, and cognitive limits in processing the volume of institutional data generated daily. As Henry Mintzberg argued that strategy formation walks on two legs, one deliberate and the other emergent, yet in resource-constrained contexts the emergent leg is frequently constrained by the absence of timely, actionable intelligence. Babalola (2023) posited that AI systems, particularly those employing predictive analytics, natural language processing and prescriptive algorithms, offer a mechanism to bridge this gap. They can synthesize student performance data, labor market trends, research publication patterns, and budgetary constraints into coherent scenarios that inform resource

allocation and program development. In doing so, AI transforms strategic management from a reactive exercise into a continuous, evidence-driven practice.

The governance implications of this shift are profound. Corporate governance in higher education is predicated on the stewardship of public and private resources by governing councils, senates, and management teams accountable to government, students, staff, and society. The Organization for Economic Cooperation and Development emphasizes that good governance requires transparency, accountability and integrity in decision-making processes. AI introduces both opportunities and challenges to these principles. On one hand, machine learning models can enhance transparency by generating audit trails of decision criteria, detecting anomalies in financial transactions, and flagging compliance risks in procurement and admissions. On the other hand, the opacity of some algorithms the so-called “black box” problem can undermine accountability if decision-makers cannot explain why a particular recommendation was generated. This tension echoes what Frank Pasquale termed “the need to open the black box of automated decision-making to public scrutiny, a concern that is magnified in public tertiary institutions where legitimacy rests on demonstrable fairness and procedural justice. According to Abubakar & Ahmad (2018), Nigeria’s tertiary education landscape provides a distinctive context for this inquiry. With over 200 universities, polytechnics, and colleges of education, the sector is marked by heterogeneity in infrastructure, digital readiness, and governance capacity. The National Universities Commission has consistently emphasized quality assurance and data-driven accreditation, yet many institutions still operate with legacy information systems that limit interoperability and real-time analytics. In such an environment, AI adoption cannot be assumed to follow the same trajectory as in well-resourced universities in North America or Europe. Instead, it must be understood as a sociotechnical intervention that interacts with existing institutional cultures, regulatory frameworks, and human capacities. As Neil Selwyn observed, Technology in education is never neutral; it is always embedded within and shaped by social, political, and organizational relations. Thus, the introduction of AI into strategic management and governance must be examined not merely for its technical efficacy but for its effects on power relations, professional autonomy, and institutional legitimacy (Obizue & Obizue, 2025). One of the most immediate applications of AI in this domain lies in strategic enrollment and resource planning. Universities face pressure to balance access with quality while managing infrastructure and staffing constraints. Predictive models can forecast student attrition, identify programs with declining demand, and simulate the financial implications of different fee structures or scholarship policies. Such capabilities enable governing councils to move beyond incremental budgeting toward scenario-based planning. However, the validity of these models depends on the quality of institutional data and the degree to which biases embedded in historical records are recognized and corrected. If, for instance, past admissions data reflect gender or regional biases, an uncritical AI system may perpetuate these patterns under the guise of objectivity. This risk underscores the necessity of embedding ethical oversight within governance structures, ensuring that AI serves equity rather than reinforcing exclusion. Beyond planning, AI is reshaping internal control and accountability mechanisms. Fraud detection algorithms can analyze procurement records to identify irregular patterns, while sentiment analysis of student and staff feedback can surface governance issues that formal grievance channels miss. These tools align with what Bob Tricker described as the “monitoring role” of governance, where boards and management must ensure that organizational activities conform to legal, ethical, and strategic expectations. Yet the deployment of such tools also raises questions about privacy, consent, and the appropriate scope of surveillance in academic communities. Nigerian data protection regulations and the principles of academic

freedom provide a normative backdrop against which these questions must be negotiated. Odenmin (2019) asserted that governance bodies must therefore develop policies that delineate the permissible uses of AI, establish independent oversight mechanisms, and ensure that affected stakeholders have avenues for redress. Noting that the human dimension of AI adoption cannot be overlooked, Emerronye & Amaechi (2018) observed that strategic management and governance are ultimately human practices, reliant on judgment, trust, and deliberation. AI systems function as decision support tools, not replacements for institutional leadership. As Thomas Davenport and Julia Kirby argued, “Augmentation, not automation, is the future of work, a principle that applies equally to university administration. Faculty, administrators and council members require new competencies to interpret AI outputs, challenge algorithmic assumptions, and integrate machine-generated insights with contextual knowledge. This need for AI literacy creates both a challenge and an opportunity for Nigerian tertiary institutions to invest in professional development and interdisciplinary collaboration between IT units, academic departments and governance offices. Moreover, the strategic use of AI intersects with Nigeria’s broader development agenda. Tertiary institutions are expected to contribute to national innovation, skills development and economic diversification and AI-enabled analytics can identify research strengths, map industry partnerships, and align curricula with emerging economic sectors such as fintech, renewable energy and agritech Abazie (2022). In this sense, AI becomes a mediating technology between institutional strategy and national policy. Yet realizing this potential requires coordinated action among the Federal Ministry of Education, the National Universities Commission, and individual institutions to standardize data infrastructure, ensure interoperability, and create incentives for responsible AI adoption. Without such coordination, institutions risk fragmented implementation that yields isolated gains but fails to strengthen systemic governance.

In the words of Obizuee & Obizue (2025), the introduction of AI into strategic management and corporate governance in Nigerian tertiary institutions thus represents a convergence of technological possibility, institutional necessity, and governance responsibility. It challenges long-held assumptions about how decisions are made, who is accountable for them and what constitutes legitimate evidence in academic governance. To navigate this convergence effectively, institutions must adopt a stance that is neither uncritical embrace nor outright rejection, but one of reflexive engagement. This entails building governance frameworks that mandate algorithmic transparency, protect stakeholder rights and ensure that AI systems are aligned with the core mission of higher education: the pursuit and dissemination of knowledge for societal benefit. In sum, AI’s role in Nigerian higher education is not peripheral but central to the future of institutional effectiveness and legitimacy. Its successful integration depends on recognizing that strategy and governance are sociopolitical processes that technology can inform but not supplant. Future research and policy must therefore focus on developing context-sensitive models of AI governance, investing in human capital, and fostering a culture of data stewardship that upholds the public trust placed in tertiary institutions. Only through such deliberate action can AI become an instrument for advancing the excellence, equity, and sustainability of Nigerian universities.

The adoption of artificial intelligence in Nigerian tertiary institutions has moved from experimental pilot projects to a decisive factor influencing how universities plan their future and account for their performance (Babalola, 2023). As institutions grapple with rising student enrolment, limited public funding, and the demand for measurable outcomes in teaching, research, and community service, the expectation that management decisions be both strategic and transparent has intensified. Strategic management requires that universities continuously interpret their environment, allocate scarce resources, and adjust institutional direction in response to

shifting social and economic demands. Corporate governance, in turn, demands that those decisions be made through processes that are accountable, inclusive and subject to oversight by governing councils, regulatory bodies, and the public. Yet the mechanisms through which these functions have traditionally been performed in Nigeria are increasingly inadequate for the scale and complexity of contemporary higher education. It is within this disjunction between institutional need and administrative capacity that the problem of AI integration in strategic management and corporate governance emerges.

Historically, decision-making in Nigerian universities has depended on committee structures, manual record-keeping, and periodic reports that often arrive too late to inform timely interventions. Mintzberg (1987) observed that, the formation of strategy is a blend of deliberate planning and emergent adaptation, but the emergent capacity of institutions is severely limited when data on student progression, staff workload, research productivity, and financial flows are fragmented across disconnected systems. The National Universities Commission has repeatedly emphasized the importance of data-driven quality assurance, yet many institutions still lack interoperable information infrastructures that can support real-time analysis. This gap creates a situation where strategic choices are made on the basis of incomplete or outdated information, while governance bodies are expected to provide oversight without access to the granular evidence needed to validate management claims. The result is a governance deficit that undermines both efficiency and public trust.

Cajetan (2017) averred that artificial intelligence presents a technical response to this deficit by enabling the processing of large, heterogeneous datasets to generate predictive insights, detect anomalies and simulate policy alternatives. Predictive models can forecast student attrition, identify programs at risk of low enrolment, and estimate the financial implications of different funding scenarios. Fraud detection algorithms can analyze procurement records for irregularities, while natural language processing can extract themes from student and staff feedback that might otherwise remain invisible to management. These capabilities align with the monitoring and accountability functions that Bob Tricker identified as central to corporate governance, where boards and councils must ensure that organizational activities conform to legal, ethical, and strategic expectations. In principle, AI can therefore strengthen the evidential basis of strategic management and enhance the transparency of governance processes.

However, the introduction of AI into these functions does not resolve the underlying problem; it reconfigures it. The effectiveness of any AI system depends on the quality of the data it processes, the assumptions embedded in its design, and the capacity of human actors to interpret and act on its outputs Abubakar & Ahmad (2018). If historical records reflect biases in admissions, grading, or resource allocation, algorithms trained on those records risk reproducing and legitimizing those biases under the appearance of objectivity. As Frank Pasquale argued, the opacity of automated decision-making creates a black box problem that can erode accountability unless mechanisms for explanation and contestation are built into governance structures. In Nigerian tertiary institutions, where data governance practices are still maturing and digital literacy among administrators varies widely, this risk is particularly acute. The problem, therefore, is not merely the absence of AI tools, but the absence of institutional conditions that make their use legitimate, explainable, and aligned with public interest. Abazie (2022) advocated that this challenge is compounded by the sociopolitical context of Nigerian higher education. Universities operate under multiple, sometimes conflicting, accountability regimes: to the Federal Ministry of Education, to the National Universities Commission, to state governments in the case of state-owned institutions, and to internal academic senates and governing councils. Each of these actors has an interest in

how decisions are made and how resources are used, yet the channels for integrating their perspectives into AI-mediated processes are underdeveloped. Neil Selwyn's observation that "technology in education is never neutral" is especially relevant here, because the deployment of AI can shift power within institutions by privileging technical expertise over collegial deliberation, or by centralizing decision-making in administrative units that control data infrastructure. Without deliberate governance design, AI risks exacerbating existing tensions rather than resolving them. In line with the assertion of Mintzberg (1987), Adeola & Sanni (2016) and Obizue & Obizue (2025), the human capital required to support responsible AI use remains uneven across the education sector hence strategic management and corporate governance are ultimately human practices that rely on judgment, negotiation and ethical reasoning. As Thomas Davenport and Julia Kirby noted, the future of organizational work lies in augmentation rather than automation, meaning that AI should support human decision-makers rather than replace them. For this to occur, university administrators, faculty, and council members must develop the capacity to critically evaluate algorithmic recommendations, understand their limitations, and integrate them with contextual knowledge. Current professional development programs in Nigerian universities rarely address these competencies, leaving a gap between technological possibility and organizational readiness. The problem is thus one of alignment: between technology, policy, and the human capabilities needed to sustain ethical and effective governance.

The consequences of failing to address this problem are significant. Esom, Ablom & Keke (2019) posited that at the institutional level, poor integration of AI into strategic management can lead to misallocation of resources, failure to respond to labor market changes, and declining academic quality. At the governance level, the use of opaque or unaccountable algorithms can weaken stakeholder trust, expose institutions to legal and reputational risks, and undermine compliance with national data protection regulations such as the Nigeria Data Protection Act of 2023. At the national level, the inability of tertiary institutions to leverage AI for strategic planning limits their contribution to Nigeria's innovation and skills development agenda, reducing the sector's role in economic diversification and social mobility.

What is lacking, therefore, is an evidence-based understanding of how AI can be integrated into strategic management and corporate governance in Nigerian tertiary institutions in ways that enhance decision quality without compromising accountability, equity, and academic values. Existing studies on AI in higher education have largely focused on contexts in Europe, North America, and parts of Asia, where data infrastructure and governance capacity differ substantially from those in Nigeria (Cajetan, 2017). While these studies provide useful conceptual and technical insights, they do not address the specific institutional, regulatory, and cultural conditions that shape AI adoption in Nigeria. There is a need for research that examines how Nigerian universities are currently using AI in planning and governance, what challenges they encounter, and what governance frameworks are required to ensure that AI serves the public mission of higher education. This study is motivated by the recognition that AI is not an external add-on to institutional management but a transformative force that redefines how knowledge, authority, and responsibility are distributed within universities. The problem is not whether AI will be used, but under what conditions it will be used responsibly and effectively. Addressing this problem requires an investigation into the intersection of technology, policy, and governance practice in Nigerian tertiary institutions, with attention to both the opportunities AI offers and the risks it poses to accountability and equity. Only through such an inquiry can institutions develop strategies that harness AI to strengthen strategic management and corporate governance, rather than allowing it to become a source of new forms of opacity and exclusion.

This study, therefore, seeks to address this gap by investigating the effect of artificial intelligence in strategic management and corporate governance in Public Tertiary institutions in Nigeria. Specifically, the study sought to examine:

1. the relationship between artificial intelligence and strategic management in selected Tertiary institutions in Imo, State, Nigeria
2. the effect of artificial intelligence on corporate governance in Selected Tertiary institutions in Imo State, Nigeria

To achieve the stated objectives of the study, the following research questions were posed to guide the study:

1. What is the relationship between artificial intelligence and strategic management in selected Tertiary institutions in Imo State, Nigeria?

How does does artificial intelligence affect corporate governance in Public Tertiary institutions in Nigeria

The following null hypotheses were formulated to guide this study and they are tested at 0.05 level of significance.

H₀₁: There is no significant relationship artificial intelligence and strategic management in selected Tertiary institutions in Imo State, Nigeria?

H₀₂: Artificial intelligence is not a significant function of corporate governance in Selected Tertiary institutions in Nigeria

Concepts

Artificial Intelligence in Tertiary Institutions

AI refers to computer systems that perform tasks normally requiring human intelligence - pattern recognition, prediction, decision support, language processing, and anomaly detection. In universities, this isn't about robots teaching classes. It's algorithms analyzing data to support administrative and academic decisions. According to RRTYY, Artificial intelligence refers to the field of computer science concerned with creating systems that can perform tasks which, when done by humans, would be considered to require intelligence. At its core, artificial intelligence is about building machines and programs that can perceive patterns in complex environments, interpret meaning from data, make inferences and decisions under conditions of uncertainty, and adapt their behavior based on experience rather than relying solely on preprogrammed instructions. The foundational aim is not to replicate human consciousness or subjective experience, but to construct computational processes that exhibit problem-solving, learning, and reasoning capabilities that approximate aspects of human cognition in specific domains.

The concept emerged formally in the 1950s when researchers like John McCarthy defined it as the science and engineering of making intelligent machines, but its philosophical roots extend further into earlier questions about logic, representation, and the nature of thought itself. What distinguishes artificial intelligence from conventional software is its reliance on data-driven learning and statistical inference rather than on fixed, hand-coded rules for every possible situation. A traditional program executes exactly what it is told, while an artificial intelligence system is designed to identify regularities, correlations, and structures in large volumes of information and use those patterns to generate predictions, classifications, or recommendations when confronted with new, unseen cases. This capacity for learning means that the system's performance can improve over time as it processes more data, though the quality of that improvement is entirely dependent on the representativeness, accuracy, and integrity of the data it receives.

Artificial intelligence operates through mathematical models and algorithms that encode relationships between inputs and outputs without necessarily being interpretable in human terms. Some of these models use explicit logical rules, while others, particularly those based on neural networks, derive their behavior from weighted connections that are adjusted during training to minimize error against known examples. The result is a system that can recognize a student at risk of dropping out from a combination of attendance records, grades, and engagement metrics, or detect anomalous transactions in a university's procurement system, without being told precisely what combination of factors constitutes "risk" or "anomaly" in advance. However, this same data-driven nature means that artificial intelligence is neither autonomous in intent nor neutral in effect. It functions within the objectives set by its designers, and it reflects the biases, omissions, and limitations present in the historical data on which it was trained.

Therefore, artificial intelligence is best understood as a set of techniques for augmenting human decision-making by extending the scale and speed at which patterns can be detected and hypotheses tested. It does not possess understanding in the human sense, nor does it exercise judgment rooted in ethics or institutional values unless those considerations are explicitly incorporated into its design and governance. In organizational settings such as tertiary institutions, artificial intelligence serves as a tool that transforms raw institutional data into actionable insight, but its legitimacy and effectiveness depend on the surrounding practices of data stewardship, human oversight, and accountability. The meaning of artificial intelligence, then, lies in its role as a computational extension of human cognitive capacity—powerful in processing and prediction, yet bounded by the purposes, data, and ethical frameworks that humans provide.

Strategic Management in Tertiary Institutions

Strategic management is the process of setting long-term direction, allocating resources, and adapting to environmental changes. Strategic management is the ongoing process through which an organization sets its long-term direction, aligns its resources and capabilities with the realities of its external environment, and makes deliberate choices about where to compete and how to create value. It is concerned less with the routine administration of daily operations and more with the fundamental questions of purpose, positioning, and adaptation that determine whether an institution remains relevant and effective over time. In practice, this involves interpreting signals from the broader environment such as shifts in policy, labor market demands, technological change, and stakeholder expectations and translating those signals into coherent decisions about priorities, programs, and resource allocation. Strategic management therefore blends analysis with judgment, requiring leaders to balance deliberate planning with the capacity to respond to emergent opportunities and threats that could not have been anticipated at the outset. It is inherently integrative, linking the formulation of goals with the implementation of actions and the monitoring of outcomes, so that learning from performance feeds back into the next cycle of decision-making. Within a university context, strategic management shapes how faculties are developed, how research is prioritized, how students are recruited and supported, and how limited public and private resources are deployed to advance the institution's academic mission while maintaining legitimacy with government, industry, and society.

Corporate Governance in Tertiary Institutions

Corporate governance is the system by which universities are directed and controlled. It defines relationships between the governing council, management, staff, students, government, and the public. The goal is accountability, transparency and alignment with public purpose.

The key aspects of corporate governance are;

Stewardship: Safeguarding public funds and assets.

Monitoring: Ensuring management acts within policy and law.

Accountability: Explaining decisions and outcomes to stakeholders.

Ethical oversight: Ensuring fairness and avoiding conflicts of interest.

In Nigeria, the Governing Councils, the National Universities Commission and the Federal Ministry of Education all have oversight roles. The problem is that oversight often lacks timely, verifiable data. AI can provide audit trails and anomaly detection, but only if governance frameworks require transparency. According to HHJJGG, corporate governance refers to the system of rules, practices and relationships through which an organization is directed and controlled to ensure that it fulfills its mandate in a manner that is accountable, transparent, and aligned with the interests of its stakeholders. It establishes the structures and processes by which authority is exercised, responsibilities are assigned, and oversight is maintained over management's conduct and the use of institutional resources. At its core, corporate governance is concerned with balancing the power of decision-makers against mechanisms of accountability, so that strategic choices and operational actions are subject to scrutiny, justification, and correction when they deviate from legal requirements, ethical standards, or the organization's stated mission. In the context of public institutions such as universities, this means defining how governing councils, senates and executive management relate to one another and to external bodies like government ministries and regulatory agencies, while also safeguarding the interests of students, staff, and the broader public who depend on the institution's integrity and performance. Good corporate governance therefore hinges on the clarity of roles, the availability of reliable information for decision-making, and the presence of procedures that enable both internal monitoring and external reporting, ensuring that leadership exercises stewardship rather than arbitrary control over the institution's assets and reputation.

Theories

This paper is anchored on, two theories that give the strongest conceptual fit and they are; the Resource-Based View and the Institutional Theory.

The Resource-Based View (RBV)

The relevance of this theory in this study is that it frames AI as a strategic resource whose value depends on how it is integrated into the university's unique capabilities, processes and governance structures rather than on the technology itself. In the context of Nigerian tertiary institutions, RBV helps you argue that AI can become a source of sustained competitive advantage only when it is rare, difficult to imitate, and embedded in decision-making systems for planning, resource allocation, teaching quality, research management, and risk oversight. Corporate governance then becomes the mechanism through which the institution decides whether AI is deployed to build distinctive capabilities such as data-driven student success analytics or automated compliance monitoring or remains an underutilized asset. This lens is particularly useful in Nigeria where resource constraints make it critical to show how AI can enhance efficiency and differentiation without merely replicating generic solutions.

Institutional Theory

This second theory complements RBV by explaining the external and normative pressures that shape whether and how

tertiary institutions adopt AI for strategic and governance purposes. Nigerian tertiary institutions operate within a field defined by the National Universities Commission, TETFund, accreditation standards, and broader public expectations about accountability, transparency, and academic integrity. Institutional Theory allows you to analyze AI adoption not only as a technical choice but as a response to coercive, mimetic, and normative pressures to appear legitimate, modern, and compliant. It also helps explain variations in governance practices across universities, since some may adopt AI to signal conformity with global standards while others adapt it to local legitimacy demands. Together, RBV accounts for the internal strategic logic of AI use, and Institutional Theory accounts for the external governance environment that constrains and enables it in the Nigerian higher education context.

Empirical Review

This study examined the following previous empirical studies;

Madukaku & Nwawu (2014) investigated the impact of artificial intelligence on educational management efficiency. The study adopted a descriptive survey of academic staff and the result reported a moderate use of AI which positively affected the speed of service delivery and evidence-based administrative decisions. The study observed some barriers like poor funding and staff resistance but concluded that AI enhances the quality and speed of work. One of the recommendations is to increase investment in technical expertise and governance data security.

Again, Adeola & Sanni (2016) studied the impact of effective corporate governance in Nigerian education sector. Using a quantitative survey research design and found that AI improved strategic planning, resource allocation and decision-making. They also found that implementation was limited by poor infrastructure and low digital competence. The study concluded that AI can strengthen management effectiveness and also recommended staff capacity building and supportive policy frameworks. Abazie (2022) carried out a qualitative case study with 20 Nigerian school Administrators through interviews and focus groups and identified concerns around data privacy, weak regulatory frameworks and low institutional readiness for AI in governance, concluding that locally adapted governance models are critical and recommending context-specific policies rather than imported frameworks.

Babalola (2023) used an exploratory survey across Nigerian higher institutions to assess artificial intelligence and educational revolution in Nigeria and discovered benefits such as predictive analytics and administrative efficiency alongside challenges of inadequate ICT, high costs and no national AI policy. The study concluding that a coordinated and ethical approach can drive transformation and recommending increased ICT investment and public-private partnerships.

Methodology

This study adopted a correlational research design to investigate the effect of artificial intelligence in strategic management and corporate governance in tertiary institutions in Nigeria. The population of the study consisted of all the management staff of the Selected public Tertiary institutions located in Imo state as reported by the Ministry of Education. Given the large population of 400 selected. A sample size of 200 was determined using Taro Yamane's (1967) formula at a 5% margin of error. The study adopted the stratified random sampling technique to ensure appropriate enhanced representation. The population was stratified into public and private tertiary institutions and then senior and junior staff, after which proportional allocation and simple random sampling were used to select participants from each stratum. Two self-developed Questionnaires were used to collect the data that was used in this study. The first is titled Artificial

Intelligence and Strategic Management Questionnaire (AISMQ) and the second is Artificial Intelligence and Corporate Governance Questionnaire (AICGQ). The questionnaires comprised of two sections Section A on demographic data and Section B containing the items arranged according to the research questions and rated on a 4-point Likert scale. To ensure content and face validity, the instrument was reviewed by three experts in relevant academic fields such as computer science, educational administration and planning and measurement and evaluation who provided corrections to improve clarity and relevance. Reliability was established using the test–retest method with 20 respondents outside the study area. After a two-week interval, scores from both administrations were correlated using Pearson’s Product Moment Correlation Coefficient, yielding reliability indices of 0.88 and 0.87, confirming high instrument reliability. All the 200 copies of the questionnaire were given to the respondents, but only 188 were retrieved. The data were analyzed using the Pearson’s correlation at a 0.05 level of significance via the SPSS software.

Result

Table 1: Result of Analysis on Relationship between Artificial intelligence and Strategic Management in Tertiary Institutions in Nigeria

Variables		Artificial Intelligence	Strategic Management
Artificial Intelligence	Pearson correlation	1	.931**
	Sig (2-tailed)	.021	
	N	200	200
Strategic Management	Pearson correlation	.931**	1
	Sig (2-tailed)	.021	
	N	200	200

Source: SPSS Output, (2026) **correlation is significant at 0.05 level (2-tailed)

Table 1 confirms a Pearson correlation of 0.931 with a significance value of ($p = 0.021 < 0.05$), demonstrating a very strong and statistically significant relationship between Artificial intelligence and Strategic Management in Tertiary Institutions in Nigeria. This rejects the null hypothesis and affirms no significant relationship between the variables. Statistically, the almost perfect correlation means that variations in artificial intelligence accounts for 93.1 % of the variations in strategic management in tertiary institutions in Nigeria

Table 2: Result of Analysis on the Extent of the Effect of Artificial intelligence and Corporate Governance in Tertiary Institutions in Nigeria

Variables		Artificial Intelligence	Corporate Governance
Artificial Intelligence	Pearson correlation	1	.524**
	Sig (2-tailed)	.025	
	N	200	200
Corporate Governance	Pearson correlation	.524**	1
	Sig (2-tailed)	.025	
	N	200	200

Source: SPSS Output, (2026) **correlation is significant at 0.05 level (2-tailed)

Table 2 shows a Pearson correlation of 0.524 with a significance of ($p = 0.025 < 0.05$), confirming a moderate but significant relationship between artificial intelligence and corporate governance as indicators of socio-emotional learning. Given this position, it is appropriate to reject the null hypothesis. The moderate relationship implies that corporate governance depends on some other complementary factors.

Discussion of Findings

The study examined the effect of Artificial intelligence in strategic management and Strategic Management in Tertiary Institutions in Nigeria

Findings from table1 provided strong empirical evidence that artificial intelligence is a critical determinant of strategic management in tertiary institutions in Nigeria. It revealed a near-perfect and statistically significant relationship between the variables with a Pearson correlation coefficient of $r = 0.931$ and a significance value of $p = 0.021$. This strong positive association indicates an almost entirely predictive capacity of artificial intelligence on management strategies in Nigerian tertiary institutions. This result aligns with previous scholarly findings that indicated between the two variables. Table 2 showed the pearson coefficient value of $r = 0.524$ and probability, p of 0.025 which is lesser than the critical 0.05 significant level. This implies a moderate but significant relationship between artificial intelligence and corporate governance in tertiary institutions in Nigeria. This means that while artificial intelligence positively related with corporate governance, its impact is not as overwhelming as it is in the previous result. This aligns with studies of Madukaku & Nwawu (2014), Adeola & Sanni (2016) and Akarole & Nwoke (2024), who respectively concluded that artificial intelligence is a profound determinant of strategic management and corporate governance given the positive and significant link between the two variables. This implies that improvement in hidden curriculum must be accompanied by essential reforms to significantly enhance socio-emotional learning outcome. This finding is consistent with Obizue & Obizue (2025), who argued that negotiations and consultations with institutional support significantly maximizes the efficiency of artificial intelligence in improving the level of strategic management and corporate governance capacities of school administrators.

Conclusion

In conclusion, artificial intelligence offers Nigerian tertiary institutions a practical means of strengthening strategic management and corporate governance by converting fragmented institutional data into timely insight, improving decision-making, and enhancing oversight. However, its value is contingent on the presence of sound data infrastructure, human capacity, and governance frameworks that ensure transparency, accountability, and fairness in algorithmic processes. Without these conditions, AI risks reinforcing existing inefficiencies and biases rather than resolving them. Therefore, the integration of AI should be approached as a sociotechnical reform that aligns technology with institutional purpose, regulatory requirements, and the academic mission of universities, polytechnics, and colleges of education.

Recommendations

Based on the study on AI in strategic management and corporate governance in Imo State, Nigerian tertiary institutions, here are five recommendations:

1. Universities should create clear policies on data quality, ownership, privacy, and sharing across departments. This ensures AI systems operate on accurate, consistent, and secure data, reducing the risk of flawed outputs and governance breaches.

2. Management and governing councils should use AI outputs to inform strategic decisions while maintaining collegial deliberation and professional oversight. This preserves academic autonomy and contextual judgment that algorithms cannot replicate.audit
3. Implement algorithmic transparency and mechanisms: Institutions should require documentation of data sources, model assumptions and decision logic for any AI system used in admissions, resource allocation, or oversight. Regular independent audits for bias and fairness should be mandated to uphold accountability.
4. Training programs should be introduced for administrators, IT staff, and council members on AI literacy, data interpretation, and ethical use. This reduces resistance, improves adoption, and ensures humans can critically evaluate AI recommendations.

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