



ARTIFICIAL INTELLIGENCE AS A TOOL FOR ENHANCING TRANSPARENCY AND ACCOUNTABILITY IN SCHOOL BUDGETING IN NIGERIA

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Abstract

Persistent challenges of financial opacity, weak accountability, and inefficient manual processes continue to undermine effective budgeting in Nigerian schools. Despite ongoing reforms, these issues remain largely unresolved, raising concerns about the credibility of financial governance in the education sector. This paper argues that the strategic adoption of Artificial Intelligence (AI) offers a practical and timely solution to these challenges. Drawing on existing literature and emerging global practices, it contends that AI-driven tools—such as automated financial systems, predictive analytics, and real-time data processing—can significantly enhance transparency and strengthen accountability in school budgeting. By reducing human discretion, improving data accuracy, and enabling continuous monitoring, AI has the potential to transform financial decision-making and oversight in educational institutions. While acknowledging concerns related to cost, infrastructure, and technical capacity, the paper maintains that the long-term benefits of AI adoption outweigh these limitations. It concludes that embracing AI is increasingly necessary for improving financial governance in Nigerian schools and calls for deliberate policy action and institutional commitment.

Keywords: Artificial Intelligence (AI); School Budgeting; Financial Transparency; Accountability; Financial Management.

Introduction

Effective budgeting is central to the success of any educational system, as it determines how scarce resources are allocated to achieve institutional goals. In Nigeria, however, school budgeting processes remain constrained by weak transparency, poor accountability, and continued reliance on manual systems. These weaknesses contribute to inefficiency, misallocation of funds, and reduced public confidence in educational governance.

These challenges are largely rooted in the persistence of traditional budgeting practices that are not suited to modern administrative demands. Manual systems are often slow, error-prone, and lack real-time monitoring capacity. As a result, stakeholders are frequently unable to access reliable financial information or effectively track how resources are managed.

Against this backdrop, Artificial Intelligence (AI) has emerged as a potential tool for improving financial governance in education. Globally, AI technologies such as automation, machine learning, and predictive analytics are being used to enhance efficiency and strengthen decision-making processes in financial systems. Within school budgeting, these technologies offer the possibility of real-time tracking, improved accuracy, and reduced human interference.

Building on this context, the paper argues that AI should be viewed not merely as a technological enhancement but as a necessary governance instrument for strengthening transparency and accountability in Nigerian school budgeting.



Conceptual Clarification

To support the argument advanced in this paper, it is necessary to clarify the key concepts that guide the discussion. Artificial Intelligence (AI) refers to computational systems capable of performing tasks that typically require human intelligence, such as learning, problem-solving, and decision-making, often through algorithms and statistical models ([Lin & Yu, 2023](#)). In school budgeting, AI is best understood as a set of practical tools, such as automated financial systems and predictive analytics, that process financial data efficiently, detect irregularities, and support real-time decision-making. These enable more accurate forecasting and optimized resource allocation, moving beyond the limitations of traditional budgeting methods ([Zheng, 2025](#)). Generally, the tools which belong to this category include machine learning algorithms for budget prediction and anomaly detection, as well as natural language processing for streamlining financial reporting ([Nzazi et al., 2025](#)).

Transparency in budgeting refers to the openness and accessibility of financial information, which enable stakeholders to understand how funds are collected, allocated, and spent ([Abayomi, Adeniran, Tolulope, & Omolara, 2025](#)). In many Nigerian schools, transparency remains limited due to fragmented record-keeping systems and delayed reporting. AI strengthens transparency by providing real-time financial data, automating reporting, and making budget documents readily available and comprehensible to all stakeholders ([Yasin & Mokhtar, 2022](#)). This enhanced accessibility has the capacity to foster greater public trust and facilitate informed oversight of financial practices, thereby mitigating opportunities for financial mismanagement ([Adeusi, Jejenewa, & Jejenewa, 2024](#)). Accountability refers to the obligation of administrators to justify financial decisions and be responsible for the use of resources. It encompasses the mechanisms and processes that ensure compliance with financial regulations and ethical standards ([Nwachukwu, Chima, & Okolo, 2025](#)). Weak accountability structures in many schools allow inefficiencies and mismanagement to persist. These challenges lead to a lack of trust and hinder the effective implementation of educational policies.

School budgeting refers to the process of planning, allocating, and managing financial resources for educational activities ([Reimers, Azim, Palomo, & Thony, 2025](#)). This comprehensive process involves forecasting revenues, prioritizing expenditures, and monitoring financial performance to ensure that educational objectives are met efficiently and sustainably. Budgeting in schools is important because it is the fundamental mechanism through which educational institutions translate strategic goals into actionable financial plans, thereby directly influencing program delivery and overall institutional effectiveness.

Current State of School Budgeting in Nigeria

School budgeting in Nigeria remains a critical but weak component of educational administration. While it is intended to ensure efficient allocation of resources, in practice it is characterized by fragmentation, limited transparency, and weak accountability ([Obadara, Alaka, null, & null, 2010](#)). These issues often lead to suboptimal resource utilization, hindering efforts to improve educational quality and access across the country. Specifically, budgeting processes are frequently characterized by inadequate financial oversight and a lack of clear, standardized procedures for expenditure tracking, which exacerbates issues of corruption and inefficiency ([N., 2021](#)).

A major challenge is the continued reliance on manual and semi-formal systems. Many schools still use paper-based records or basic spreadsheets that are not integrated into centralized systems. This results in delays, inconsistencies, and limited access to real-time financial data. This often leads to challenges such as financial mismanagement and policy inconsistencies, further compounding the difficulty in achieving effective resource allocation and accountability ([Dabo & Dashol, 2011](#); [Katureebe, Turyamureeba, Rahim, Eze, & Eze, 2023](#)). For instance, funds are often misappropriated



or diverted due to a lack of rigorous financial controls and oversight mechanisms (Lawrence, Ihebuzor, & Lawrence, 2020).

Closely related to this is weak oversight and inconsistent enforcement of accountability mechanisms. Audit processes are often periodic rather than continuous, reducing their effectiveness in detecting financial irregularities. This creates an environment where financial impropriety can go unnoticed for extended periods, undermining public trust and the efficient deployment of scarce resources (R & Q., 2018). This also contributes to the inability of stakeholders, including parents and community members, to actively participate in financial planning and monitoring, further diminishing transparency and collective oversight (Mosala & Mofolo, 2016). The overall consequence of these systemic weaknesses is a persistent misalignment between budgeted allocations and actual developmental outcomes within the Nigerian educational sector (Onyimadu, 2020), impeding the effective implementation of educational programs (Mabi & Buluma, 2024).

Another important issue is information asymmetry among stakeholders. School administrators often control financial information, while other stakeholders, such as teachers, parents, and community members, have limited access to detailed budget information (Dele-Ajayi & Taddese, 2020). This reduces transparency and weakens participatory governance. This also creates an environment where trust is eroded, and the potential for informed decision-making regarding resource allocation is severely hampered.

These challenges are further compounded by inadequate digital infrastructure, limited technical capacity, and inconsistent policy implementation. Although ICT tools have been introduced in some schools, they are largely limited to record-keeping rather than intelligent financial systems.

The persistence of stated challenges suggests that incremental reforms may no longer be sufficient. This provides the basis for examining how Artificial Intelligence can contribute to addressing these weaknesses.

Enhancing Transparency and Accountability Through AI

Against the background of persistent weaknesses in school budgeting, this section presents dividends that can accrue from the ethical integration of AI in enhancing transparency and accountability within Nigeria's educational budgeting systems:

1. AI and Financial Transparency

AI can improve transparency by enabling real-time processing and automated reporting of financial transactions. This capability allows for immediate insight into budgetary allocations and expenditures, mitigating the delays and opacities inherent in manual systems (Adisa, Damilare, Sulaiman, & Kolade, 2025). This by extension reduces the reliance on manual data entry which often leads to human error and deliberate data manipulation. Through automated platforms, such as digital accounting software, AI can provide stakeholders with immediate access to comprehensive financial data and foster greater public confidence.

This capability significantly addresses the issue of information asymmetry by providing timely and consistent access to crucial financial data (Prananosa, Putra, Marianita, & Alpikar, 2025). As a result, transparency becomes embedded within the budgeting system rather than dependent on administrative discretion. Financial information further becomes more accurate, timely, and verifiable.

2. From Transparency to Accountability



When financial data is made transparent through AI-driven systems, it creates a foundation for robust accountability mechanisms. This improved transparency allows for the proactive identification of irregularities and discrepancies, empowering stakeholders to scrutinize financial decisions and hold school administrators responsible for resource allocation ([Gbadrive, 2025](#)). Specifically, AI-powered predictive analytics and fraud detection systems can monitor financial flows for anomalies, enabling prompt intervention and reinforcing adherence to budgetary guidelines ([Aldemir & Uysal, 2025](#)).

These processes which enhance transparency strengthen financial accountability, in that they provide auditors and oversight bodies with more reliable data and tools for continuous monitoring, rather than relying solely on periodic checks. Additionally, the deployment of AI for the sake of transparency fosters a culture of compliance by automatically flagging deviations from established financial protocols, thereby deterring potential misconduct ([Antwi, Adelakun, & Eziefule, 2024](#)); by extension, ensuring that financial administrators are not only responsible and careful in their financial dealings, but financial discipline is also strengthened within schools.

AI systems can further enhance accountability by providing comprehensive audit trails and maintaining immutable records of all transactions and changes; this simplifies the tracing of financial activities and decisions ([Ahmad et al., 2023](#)). It further allows for more thorough and efficient audits, reinforces adherence to financial regulations, promotes fiscal responsibility, and also provides a clear and undeniable record for oversight bodies to assess adherence to financial guidelines ([Lin & Yu, 2023](#)).

3. Decision-Making and Governance Improvement

AI also improves the quality of budgeting decisions through predictive analytics. By analyzing historical data and institutional trends, AI supports more accurate financial forecasting and resource allocation, leading to optimized budgetary outcomes ([Abrahams et al., 2024](#)). This data-driven approach allows administrators to make informed strategic choices that maximize educational impact while minimizing financial waste. Furthermore, AI can facilitate more equitable resource distribution by identifying areas of greatest need within the educational system, ensuring that funds are allocated where they can have the most profound effect on student success and institutional development ([Buckley, Fishbein, & Wollman, 2025](#)). Beyond these direct applications, AI's capacity for real-time data analysis and automated reporting significantly minimizes human error and reduces opportunities for corruption, enhancing institutional integrity ([Jermsittiparsert et al., 2025](#)).

Moreover, the implementation of AI in educational administration, particularly in financial management, has been shown to not only improve operational efficiency and provide more accurate reporting mechanisms, it accelerates decision-making processes and ensures easier access to relevant information for all stakeholders ([Anggraini, 2024](#)). It cuts down the amount of time spent in manual financial operations and redirects resources towards more strategic initiatives ([Onesi-Ozigagun, Ololade, Eyo-Udo, & Ogundipe, 2024](#)).

Challenges to AI Implementation in Nigerian Schools

Despite its potential, several challenges may affect the adoption of AI in school budgeting. However, these challenges relate more to implementation conditions than to the technology itself. Below are some of the challenges:

1. Cost Constraints

AI systems require initial investment in infrastructure and software. For instance, the acquisition of advanced AI tools, such as those used for fraud detection or predictive analytics, often comes with substantial licensing fees and ongoing maintenance costs ([Antwi, Adelakun, Fatogun, & Olaiya,](#)



2024). Furthermore, the development and deployment of customized AI solutions tailored to the specific needs of Nigerian schools can incur significant expenses, including data acquisition, system integration, and personnel training (Oyeniya, Ugochukwu, & Mhlongo, 2024). These significant financial outlays may pose a considerable barrier for many institutions, especially those operating with limited budgets.

However, over time, improved efficiency and reduced financial leakages can offset these costs, making AI a long-term investment rather than a burden. The initial capital expenditure for AI implementation must therefore be viewed through the lens of its potential for long-term fiscal prudence and enhanced operational effectiveness, particularly in an environment where resource optimization is paramount (Ogunode & Gregory, 2025). In any case, the long-term benefits of AI integration in financial management, such as enhanced efficiency and decision-making capabilities, outweigh initial cost concerns. Hence, stakeholders should consider strategic investments in AI infrastructure as a foundational element for sustainable financial management.

2. Infrastructure Limitations

Many schools lack adequate digital infrastructure, including stable internet, reliable power supply, and suitable hardware, which are all prerequisite for the effective operation of AI technologies (Olowoselu, 2025). This infrastructural deficit presents a substantial impediment to the effective deployment and sustained operation of AI-driven systems. The absence of robust digital infrastructure creates an environment where AI's computational demands cannot be met, hindering its ability to process complex financial data and generate actionable insights (Ibitoye, Abdullahi, Ekele, & Ibitoye, 2025). Specifically, insufficient access to computing devices, coupled with unreliable electricity and internet connectivity, directly impede the efficient implementation of AI-powered instructional and administrative aids. These limitations pose great challenge to the smooth utilization of AI applications and obstruct advancements in educational and administrative processes.

These challenges do not mean that AI adoption is insurmountable, but rather highlight the necessity for strategic investment in foundational digital infrastructure and capacity building to fully leverage the transformative potential of AI in Nigerian educational institutions (Jesam, Onwubuya, & Atah, 2025; Okunade, 2024). There is need for a phased implementation and broader investment in educational ICT infrastructure.

3. Technical Capacity

Limited digital literacy among school personnel may hinder adoption. This lack of technical knowledge can lead to skepticism and resistance towards new AI systems, as educators and administrators may be unfamiliar with how these tools function or how to effectively integrate them into existing workflows (Arrooqi & Alruqi, 2025). Furthermore, the specialized nature of AI systems often necessitates hiring additional personnel with expertise in AI development, maintenance, and data analysis, or investing in extensive training for current staff, which can be a significant financial and logistical hurdle for many institutions (Nguyen, 2023).

Generally, technical capacity is a crucial impediment, as the effective integration of AI requires multidisciplinary teams with robust technical expertise (Bond et al., 2024). But this can also be mitigated. For instance, schools and governments can invest in comprehensive training programs tailored to upskill existing staff in AI literacy and data interpretation thereby alleviate the burden of recruiting new, specialized personnel. Again, AI education and research initiatives, coupled with collaborative partnerships between academic institutions and technology providers, can further enhance the overall technical readiness for AI adoption (Mallik & Gangopadhyay, 2023). Additionally, the development of user-friendly AI interfaces and platforms can lower the technical



barrier to entry for educators and administrators, making AI tools more accessible and intuitive for those without specialized technical backgrounds (Familoni & Onyebuchi, 2024). These proactive measures can foster a supportive environment for AI integration, ensuring that technological advancements are met with commensurate human capability and understanding.

4. Over-Reliance on Technology

There are concerns raised over the potential for AI to diminish human oversight and critical thinking in decision-making processes, which could lead to a dependency where the nuances of educational contexts are overlooked in favor of automated recommendations. Another concern is that it could also lead to the total displacement of jobs, particularly in administrative roles, causing widespread anxiety among staff and potentially undermining morale (Ajuwon, Animashaun, & Chiekezie, 2024). Among different stakeholders, resistance to AI adoption may emerge due to apprehension regarding job security and the perceived dehumanizing effects of excessive technological reliance (Mimoudi, 2024).

Such concerns highlight the necessity for a balanced approach to AI integration, where human expertise remains central to critical decision-making and ethical oversight (Tarisayi, 2023). AI should operate within a hybrid governance model that combines technological support with human oversight. This balanced approach ensures that AI serves as a powerful aid, enhancing efficiency and decision-making without supplanting the invaluable human element (Dayagbil, Boholano, & Sumalinog, 2025); thus, fostering a symbiotic relationship between advanced computational systems and human ingenuity.

Conclusion

This paper has argued that the persistent weaknesses in school budgeting in Nigeria, particularly financial opacity, weak accountability, and reliance on manual systems, reflect deeper structural governance challenges that cannot be resolved through incremental reforms alone. It posits that Artificial Intelligence (AI) offers a transformative solution by enabling real-time data processing, reducing human discretion, and embedding transparency within financial systems.

The paper establishes a clear relationship between AI, transparency, and accountability, showing that improved data accuracy and accessibility enhance transparency, which in turn strengthens continuous monitoring and accountability. In this way, AI functions not merely as a technological tool but as a governance mechanism capable of restructuring financial management practices in education.

While acknowledging challenges such as cost, infrastructure deficits, and limited technical capacity, the paper maintains that these are implementation issues that can be addressed through strategic planning, policy support, and capacity development. It further highlights the theoretical contribution of extending AI's role from efficiency enhancement to strengthening financial governance.

The paper concludes that the adoption of AI in school budgeting is increasingly a strategic necessity rather than an optional innovation. However, it calls for future empirical research to validate its propositions and assess the practical impact of AI-driven systems in Nigerian schools. Overall, effective AI integration holds significant potential to improve transparency, reinforce accountability, and enhance the quality of educational governance in Nigeria.

Recommendations

Building on the foregoing analysis, this paper advances a set of practical and policy-oriented recommendations aimed at facilitating the effective integration of Artificial Intelligence (AI) into school budgeting systems in Nigeria. These recommendations are grounded in the recognition that



while AI offers significant potential for enhancing transparency and accountability, its successful adoption depends on deliberate institutional, technological, and policy interventions.

1. Development of a National Policy Framework for AI in Educational Financial Management

A comprehensive national policy framework is needed to guide the adoption of AI in school financial management and ensure consistency across institutions. This framework should establish clear standards for data governance, reporting, accountability, and ethical AI use.

2. Phased and Context-Sensitive Implementation Strategy

AI implementation should follow a phased approach that begins with basic digital systems before advancing to more complex applications. This allows schools to build capacity gradually while reducing risks associated with rapid deployment.

3. Strategic Investment in Digital Infrastructure

Effective AI adoption requires strong digital infrastructure, including reliable electricity, internet access, and secure data systems. Governments and stakeholders should prioritize investment and leverage partnerships to support this development.

4. Capacity Building and Professional Development

Sustained training programs are necessary to equip school personnel with the skills needed to use AI systems effectively. Emphasis should be placed on both technical competence and the ability to interpret data for informed decision-making.

5. Establishment of Hybrid Governance Models

AI should complement, not replace, human oversight in financial decision-making processes. A hybrid governance model ensures that accountability and ethical judgment remain central to financial management.

6. Strengthening Data Governance and Security Mechanisms

Robust data governance frameworks are essential to protect the integrity, confidentiality, and security of financial information. Institutions must implement strict protocols for data protection, access control, and system auditing.

7. Pilot Testing and Evidence-Based Scaling

AI systems should first be tested through pilot programs to assess effectiveness and identify challenges. Insights from these pilots can guide broader implementation and improve system reliability.

8. Promotion of Stakeholder Engagement and Transparency Culture

AI adoption should be accompanied by efforts to foster transparency and active stakeholder participation. Schools must ensure that financial data is not only accessible but also understandable and usable for informed oversight.

References

- Abayomi, A. A., Adeniran, O. A., Tolulope, O. O., & Omolara, A. (2025). Leveraging Artificial Intelligence for Efficient Resource Allocation in Educational Institutions in



- Nigeria. *University of Arusha Academic Journal.*, 270–270. <https://doi.org/10.69713/uoaj2025v03i02.22>
- Abrahams, T. O., Ewuga, S. K., Kaggwa, S., Uwaoma, P. U., Hassan, A. O., & Dawodu, S. O. (2024). [Review of *Mastering Compliance: A Comprehensive Review of Regulatory frameworks in Accounting And Cybersecurity*]. *Computer Science & IT Research Journal*, 5(1), 120–140. Fair East Publishers. <https://doi.org/10.51594/csitrj.v5i1.709>
- Adeusi, K. B., Jejenewa, T. O., & Jejenewa, T. O. (2024). Advancing financial transparency and ethical governance: innovative cost management and accountability in higher education and industry. *International Journal of Management & Entrepreneurship Research*, 6(5), 1533–1546. <https://doi.org/10.51594/ijmer.v6i5.1099>
- Adisa, M. A., Damilare, O. D., Sulaiman, L. O., & Kolade, E. O. (2025). *Artificial Intelligence and Blockchain Applications for Governance Transformation in Nigeria*. <https://doi.org/10.21203/rs.3.rs-7545925/v1>
- Ahmad, A. Y. A. B., Abusaimh, H., Rababah, A., Alqsass, M., Al-Olima, N. H., & Hamdan, M. N. (2023). Assessment of effects in advances of accounting technologies on quality financial reports in Jordanian public sector. *Uncertain Supply Chain Management*, 12(1), 133–142. <https://doi.org/10.5267/j.uscm.2023.10.011>
- Ajuwon, O. A., Animashaun, E. S., & Chiekezie, N. R. (2024). Advancing human resources management practices in educational institutions: Enhancing teacher retention and student outcomes using AI. *International Journal of Management & Entrepreneurship Research*, 6(8), 2488–2506. <https://doi.org/10.51594/ijmer.v6i8.1367>
- Aldemir, C., & Uysal, T. U. (2025). Artificial Intelligence for Financial Accountability and Governance in the Public Sector: Strategic Opportunities and Challenges. *Administrative Sciences*, 15(2), 58–58. <https://doi.org/10.3390/admsci15020058>
- Anggraini, A. D. (2024). Penerapan Artificial intelligence dalam Administrasi Pendidikan untuk Meningkatkan Transparansi dan Akuntabilitas di Yayasan Pendidikan Garuda Khatulistiwa Kubu Raya. *Journal Islamic Global Network for Information Technology and Entrepreneurship*, 2(3), 34–40. <https://doi.org/10.59841/ignite.v2i3.1565>
- Antwi, B. O., Adelakun, B. O., & Eziefule, A. O. (2024). Transforming Financial Reporting with AI: Enhancing Accuracy and Timeliness. *International Journal of Advanced Economics*, 6(6), 205–223. <https://doi.org/10.51594/ijae.v6i6.1229>
- Antwi, B. O., Adelakun, B. O., Fatogun, D. T., & Olaiya, O. P. (2024). Enhancing audit accuracy: The role of AI in detecting financial anomalies and fraud. *Finance & Accounting Research Journal*, 6(6), 1049–1068. <https://doi.org/10.51594/farj.v6i6.1235>
- Arroqi, A. S., & Alruqi, M. M. (2025). Academic leadership attitudes toward employing artificial intelligence applications in developing administrative processes. *Humanities and Social Sciences Communications*, 12(1). <https://doi.org/10.1057/s41599-025-05598-x>
- Bond, M., Khosravi, H., Laat, M. de, Bergdahl, N., Negrea, V., Oxley, E., ... Siemens, G. (2024). A meta systematic review of artificial intelligence in higher education: a call for increased ethics, collaboration, and rigour. *International Journal of Educational Technology in Higher Education*, 21(1). <https://doi.org/10.1186/s41239-023-00436-z>
- Buckley, P. R., Fishbein, D., & Wollman, N. (2025). AI-Augmented Clearinghouse to Facilitate Evidence-Based Decision-Making and Social Spending: a Conceptual Framework. *Prevention Science*. <https://doi.org/10.1007/s11121-025-01848-1>
- Dabo, S. A., & Dashol, I. U. (2011). Effective budgeting: A tool for the successful administration of secondary education in Nigeria. *Educational Foundations*, 1, 107–113. Retrieved from <https://www.ajol.info/index.php/jef/article/view/116448>



- Dayagbil, F. T., Boholano, H. B., & Sumalinog, G. G. (2025). Are they in or out? Exploring pre-service teachers' knowledge, perceptions, and experiences regarding artificial intelligence (AI) in teaching and learning. *Frontiers in Education*, 10. <https://doi.org/10.3389/educ.2025.1665205>
- Dele-Ajayi, O., & Taddese, A. (2020). *EdTech in Nigeria: A Rapid Scan*. <https://doi.org/10.53832/edtechhub.0034>
- Familoni, B. T., & Onyebuchi, N. C. (2024). [Review of *ADVANCEMENTS AND CHALLENGES IN AI INTEGRATION FOR TECHNICAL LITERACY: A SYSTEMATIC REVIEW*]. *Engineering Science & Technology Journal*, 5(4), 1415–1430. Fair East Publishers. <https://doi.org/10.51594/estj.v5i4.1042>
- Gbadrive, S. W. (2025). Enhancing Financial Transparency and Accountability in Public Education: Lessons from Internal Control Interventions in Developing Countries. *International Journal of Scientific Research and Modern Technology*, 19–28. <https://doi.org/10.38124/ijsrmt.v4i9.795>
- Ibitoye, D. D., Abdullahi, M. E., Ekele, A. O., & Ibitoye, N. S. (2025). Artificial Intelligence in Education: A Systematic Review of its Opportunities and Challenges for Nigerian Schools. *NIPES Journal of Science and Technology Research*, 7(1). <https://doi.org/10.37933/nipes/7.4.2025.si219>
- Jermisittiparsert, K., Singh, B., Arora, M. K., Lal, S., Malviya, R., & Chandra, S. (2025). AI-Driven Solutions for Transparent Governance. In *IGI Global eBooks* (pp. 153–166). IGI Global. <https://doi.org/10.4018/979-8-3693-8749-8.ch009>
- Jesam, M., Onwubuya, U. O., & Atah, C. A. (2025). Challenges in the Adoption of Artificial Intelligence for Effective Delivery of Business Education Course Content at the University of Cross River State. *Mediterranean Journal of Social Sciences*, 16(5), 135–135. <https://doi.org/10.36941/mjss-2025-0055>
- Katureebe, Y., Turyamureeba, S., Rahim, A., Eze, C. E., & Eze, V. H. U. (2023). The Effect of Financial Management on the Learning Ability of Students in Government-Aided Primary Schools in Ibanda Municipality Uganda. *International Journal of Humanities Management and Social Science (IJ-HuMaSS)*, 6(2), 109–118. <https://doi.org/10.36079/lamintang.ij-humass-0602.600>
- Lawrence, A., Ihebuzor, N., & Lawrence, D. O. (2020). Some Challenges Militating against Developing Countries Achieving SDG 4 on Targets: Nigeria as Case Study. *Modern Economy*, 11(7), 1307–1328. <https://doi.org/10.4236/me.2020.117093>
- Lin, L., & Yu, S. (2023). The Transformative Impact of Artificial Intelligence on Educational Financial Management. *Accounting and Corporate Management*, 5(12). <https://doi.org/10.23977/acccm.2023.051203>
- Mabi, J., & Buluma, A. (2024). Systematic Review of the Effect of Financial Management Practices on Service Delivery in Secondary Schools. *EIKI Journal of Effective Teaching Methods*, 2(4). <https://doi.org/10.59652/jetm.v2i4.296>
- Mallik, S., & Gangopadhyay, A. (2023). [Review of *Proactive and reactive engagement of artificial intelligence methods for education: a review*]. *Frontiers in Artificial Intelligence*, 6. Frontiers Media. <https://doi.org/10.3389/frai.2023.1151391>
- Mimoudi, A. (2024). AI, Personalized Education, and Challenges. *Proceedings of the International Conference on AI Research*, 4(1), 271–280. <https://doi.org/10.34190/icair.4.1.3133>
- Mosala, G., & Mofolo, M. A. (2016). Effective use of Budgeting as a Tool Towards Financial Management in Schools in Lejweleputswa District. *Africa's Public Service Delivery and Performance Review*, 4(3), 389–389. <https://doi.org/10.4102/apsdpr.v4i3.121>



- N., D. G. (2021). Transparency/accountability and human capital development as software in Nigerias quest for economic development 2004 - 2020. *Journal of Economics and International Finance*, 13(4), 143–151. <https://doi.org/10.5897/jeif2021.1118>
- Nguyen, N. D. (2023). Exploring the role of AI in education. *London Journal of Social Sciences*, (6), 84–95. <https://doi.org/10.31039/ljss.2023.6.108>
- Nwachukwu, P. S., Chima, O. K., & Okolo, C. H. (2025). The artificial intelligence governance framework for finance: A control-by-design approach to algorithmic decision-making in accounting. *Finance & Accounting Research Journal*, 7(8), 350–379. <https://doi.org/10.51594/farj.v7i8.2016>
- Nzazi, B. N., Biaba, J. K., Bazie, I. G., Tashev, T., Kambale, W. V., Tuong, V. H., ... Kasereka, S. K. (2025). Artificial Intelligence for Public Expenditure Analysis in Low-Income Countries: Opportunities and Challenges. *Procedia Computer Science*, 272, 261–268. <https://doi.org/10.1016/j.procs.2025.10.204>
- Obadara, O. E., Alaka, A. A., null, null, & null, null. (2010). Influence of Resources Allocation in Education on Secondary School Students' Outcome in Nigeria. *Academic Leadership The Online Journal*. <https://doi.org/10.58809/pptp8851>
- Ogunode, N. J., & Gregory, D. M. (2025). Artificial Intelligence (AI) in Educational Administration. *International Journal on Orange Technologies*, 5(10), 56–65. <https://doi.org/10.31149/ijot.v5i10.4830>
- Okunade, A. I. (2024). The Role of Artificial Intelligence in Teaching of Science Education in Secondary Schools in Nigeria. *European Journal of Computer Science and Information Technology*, 12(1), 57–67. <https://doi.org/10.37745/ejcsit2013/vol12n15767>
- Olowoselu, A. (2025). Artificial Intelligence In The Revolutionizing of Tertiary Education Management in Nigeria: Challenges And Solutions. *Zenodo (CERN European Organization for Nuclear Research)*. <https://doi.org/10.5281/zenodo.18691909>
- Onesi-Ozigagun, O., Ololade, Y. J., Eyo-Udo, N. L., & Ogundipe, D. O. (2024). [Review of *Revolutionizing Education Through AI: A Comprehensive review of enhancing Learning EXPERIENCES*]. *International Journal of Applied Research in Social Sciences*, 6(4), 589–607. Fair East Publishers. <https://doi.org/10.51594/ijarss.v6i4.1011>
- Onyimadu, C. (2020). Assessing the Nigerian Federal Government's Financial Commitments to Its Education Rights Obligations. *Modern Economy*, 11(2), 475–494. <https://doi.org/10.4236/me.2020.112035>
- Oyeniya, L. D., Ugochukwu, C. E., & Mhlongo, N. Z. (2024). [Review of *TRANSFORMING Financial Planning with AI-Driven Analysis: A Review and Application Insights*]. *Finance & Accounting Research Journal*, 6(4), 626–647. Fair East Publishers. <https://doi.org/10.51594/farj.v6i4.1037>
- Prananosa, A. G., Putra, M. R. E., Marianita, M., & Alpikar, L. (2025). Manajemen Keuangan Sekolah Berbasis Artificial Intelligence (AI) untuk Pemenuhan Standar Digitalisasi Sekolah Dasar. *Journal Of Administration and Educational Management (ALIGNMENT)*, 8(6), 1463–1468. <https://doi.org/10.31539/06mbj761>
- R, I., & Q., O. I. (2018). Educational policies and programmes implementations: A case study of education funding, universal basic education (UBE) and teacher education. *International Journal of Educational Administration and Policy Studies*, 10(8), 91–102. <https://doi.org/10.5897/ijeaps2016.0457>
- Reimers, F., Azim, Z., Palomo, M.-R., & Thony, C. (2025). *AI and Education Governance*. https://doi.org/10.1007/978-3-032-11449-5_8
- Tarisayi, K. S. (2023). Strategic leadership for responsible artificial intelligence adoption in higher education. *CTE Workshop Proceedings*, 11, 4–14. <https://doi.org/10.55056/cte.616>



- Yasin, H., & Mokhtar, M. (2022). Practices of Accountability and Transparency in Financial Management among Secondary School Principals. *International Journal of Academic Research in Business and Social Sciences*, 12(9). <https://doi.org/10.6007/ijarbss/v12-i9/14803>
- Zheng, H. (2025). Research on the Application of Artificial Intelligence Technology in Instructional Budget Management. *Journal of Modern Education and Culture.*, 2(8). <https://doi.org/10.70767/jmec.v2i8.792>