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## Optimizing University Administration in a Globalized World: Leveraging AI and ICT for Enhanced Governance and Sustainability in Higher Education

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Abstract: This study explores the challenges in the integration of Artificial Intelligence (AI) and Information and Communication Technology (ICT) practices in enhancing governance and sustainable solution modeling in higher education, focusing on Alex Ekwueme Federal University Ndufu-Alike (AE-FUNAI), Nigeria. In the context of a developing country like Nigeria, leveraging AI and ICT tools presents a unique opportunity to improve teaching, learning, administrative processes, and governance. The research aims to evaluate how AI and ICT technologies can contribute to sustainable educational practices, enhance decision-making processes, and improve engagement among key stakeholders: students, lecturers, and administrative staff. Students are involved to provide insights into their interactions with AI and ICT tools, particularly in learning and participation in governance. Lecturers' perspectives will offer a view into how these technologies influence teaching, research, and curriculum development. Administrative staff will provide a crucial understanding of how AI and ICT tools can streamline operations, support data-driven governance, and enhance institutional efficiency. This study will use a mixed-method approach to collect both qualitative and quantitative data. The finding of this study is geared towards shaping the future of education in Nigeria and beyond by developing an Inclusive AI-governance Integration Framework (I-AIGiF) for enhanced performance in the system. Examining the roles of these stakeholder groups, this research could guide the development of policies for more effective AI and ICT integration, leading to sustainable educational innovation and governance.

Keywords: university administration, AI, higher education governance, education sustainability, ICT challenges

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