

IMPROVING ORGANIZATIONAL EFFICIENCY THROUGH DIGITAL TECHNOLOGIES IN TERTIARY INSTITUTIONS IN EKITI STATE, NIGERIA

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Abstract

This paper explored ways of improving organizational efficiency through digital technologies in tertiary institutions in Ekiti State. Specifically, the study examined the current state of organizational efficiency, institutional governance structures in tertiary institutions, the impact of digital transformation initiatives on administrative processes, the effectiveness of various resource allocation in optimizing organizational efficiency and the role of organizational culture in optimizing organizational efficiency in tertiary institutions in Ekiti State. The study adopted descriptive survey research design. The population comprised 3,912 administrative staff from tertiary institutions in Ekiti State (Ekiti State University, Ado-Ekiti, Federal University Oye-Ekiti, Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekiti and Federal Polytechnic Ado-Ekiti). The sample comprised 400 respondents selected using simple random sampling technique. An instrument titled "Organization Efficiency Questionnaire (EFQ)" was used to collect data for the study. The validity of the instrument was ensured. For the reliability of the instrument, test re-test method was used to obtain a reliability coefficient of 0.79. The data collected were analyzed using descriptive and inferential statistics. Descriptive statistics such as mean and standard deviation was used to answer the research questions, while inferential statistics of Pearson Product Moment Correlation (PPMC) was used to test the hypotheses. The findings revealed that governance structures, digital transformation initiatives, resource allocation and organizational culture are significant ways to improve organizational efficiency. It was recommended that tertiary institutions should implement comprehensive process to streamline decision-making procedures, eliminate task duplication and establish clear communication protocols across all organizational levels. Also, institutions should prioritize comprehensive staff training programmes and change management strategies to support organizational efficiency.

Keywords: Improving, Organization efficiency, digital technologies, tertiary institutions, Ekiti State, Nigeria

Introduction

The landscape of higher education has undergone significant transformation over the past few decades, characterized by increasing competition, evolving student demographics, technological advancements, funding constraints, and heightened accountability demands.

Emerging technologies offer additional efficiency opportunities. Robotic process automation (RPA) can handle routine, rule-based tasks such as data entry, report generation, and basic correspondence, freeing staff for higher-value activities. Artificial intelligence applications, from chatbots handling routine inquiries to

algorithms optimizing course scheduling, represent the next frontier in administrative efficiency (Zawacki-Richter, Marín, Bond & Gouverneur, 2020).

Data-driven performance management frameworks enable continuous efficiency monitoring and improvement. Balanced scorecards, which track performance across multiple dimensions (financial, customer, internal processes, and learning and growth), provide comprehensive efficiency metrics aligned with strategic objectives (Johnes, 2020). Benchmarking against peer institutions provides context for performance evaluation and identifies potential efficiency gaps. Strategic sourcing and procurement initiatives leverage institutional purchasing power to negotiate favourable contract terms with suppliers. Inventory management optimization reduces carrying costs and waste, particularly in areas such as facilities maintenance, laboratory supplies and food services. Effective change management represents a critical success factor for efficiency initiatives in tertiary institutions. Participatory design processes that engage faculty and staff in identifying inefficiencies and developing solutions generate more sustainable improvements than top-down mandates (Tierney, 2021).

Tertiary institutions worldwide face mounting pressures from diverse stakeholders to demonstrate value, optimize resource utilization, and enhance organizational performance while maintaining educational quality. Within this context, organizational efficiency has emerged as a critical factor in institutional sustainability and effectiveness. The tertiary education sector operates in an environment where institutions must simultaneously pursue excellence in teaching and research while managing complex organizational structures and limited resources (Tight, 2021). This multifaceted challenge necessitates a comprehensive understanding of

organizational efficiency and the implementation of strategic approaches to enhance operational performance across various institutional domains.

Organizational efficiency refers to the capacity of an institution to achieve its objectives while minimizing resource waste and maximizing output quality (Drucker, 2021). In the context of tertiary education, efficiency encompasses the optimization of institutional processes, systems and resources to deliver high-quality educational outcomes and services with minimal redundancy and waste (Lawrence & Sharma, 2020). Unlike purely commercial enterprises, efficiency in educational institutions must balance operational optimization with educational quality and the fulfillment of broader social missions. Organizational efficiency in tertiary institutions operates across multiple dimensions, including administrative efficiency, which involves the streamlining of management processes, bureaucratic procedures, and support services to reduce administrative burden and operational costs (Krücken, Blümel & Kloke, 2020). Academic efficiency encompasses the optimization of teaching loads, class sizes, curriculum design, and academic program structures to maximize learning outcomes while managing faculty workloads (Salmi, 2020). Resource efficiency refers to the strategic allocation and utilization of financial, physical, and human resources to maximize institutional capacity and output (Santos, Muñoz-Sepúlveda, Moreno-Rodríguez & Velasco-Morente, 2020). Technological efficiency involves the deployment of information technology and digital systems to automate processes, enhance communication, and improve data-driven decision-making (Henderson, Selwyn & Aston, 2020). Energy and environmental efficiency concern the implementation of sustainable practices to reduce energy consumption, waste, and environmental impact of campus operations (Salvioni, Franzoni & Cassano, 2020).

Efficiency in tertiary education must be conceptualized differently from industrial efficiency models, recognizing the unique characteristics of knowledge production and dissemination (Manning, 2020). While businesses often prioritize standardization and cost reduction, universities must balance efficiency with the need for academics, intellectual exploration, and pedagogical innovation. Therefore, organizational efficiency in tertiary institutions represents a complex interplay between resource optimization and the preservation of core academic values (Kezar & Holcombe, 2020). The distinct culture of an institution, characterized by faculty autonomy, college governance and disciplinary specialization, can create resistance to efficiency initiatives that appear to threaten these values (Tierney, 2021). Efficiency efforts perceived as corporatization or managerialism may face substantial opposition, hampering implementation (Lawrence & Sharma, 2020). Institutions with cultures that embrace continuous improvement, data-driven decision-making, and collaborative problem-solving tend to achieve higher levels of organizational efficiency (Kezar, Holcombe & Vigil, 2021).

Tertiary institutions worldwide face increasing pressures to optimize their operations amid resource constraints, heightened competition, and growing accountability demands. Process redesign methodologies adapted from business and industry offer promising avenues for efficiency improvement in tertiary education. Business process reengineering (BPR) provides a structured approach to fundamentally rethinking and radically redesigning administrative workflows to achieve substantial improvements in performance metrics (Waterbury, 2021). By mapping current processes, identifying non-value-adding activities, and reimagining workflows, institutions can eliminate redundancies and streamline

operations. Strategic resource allocation represents another critical approach to improving organizational efficiency. Traditional incremental budgeting models often perpetuate historical inefficiencies and fail to align resources with current priorities. Activity-based costing (ABC) provides a more granular understanding of the true costs associated with specific programs, services, and activities, enabling more informed resource allocation decisions (Santos *et al.*, 2020). Responsibility-centered management (RCM) models, which decentralize budgetary authority and responsibility to academic units, can create incentives for local efficiency improvements. By allowing units to retain a portion of cost savings, RCM fosters entrepreneurial approaches to resource management.

Academic Programme portfolio management represents a strategic approach to optimizing the institution's educational offerings. By systematically evaluating program performance against criteria such as enrollment trends, completion rates, market demand and resource requirements, institutions can identify opportunities to consolidate, enhance, or phase out programs (Eckel & Trower, 2021). Organizational restructuring initiatives can generate significant efficiency improvements through consolidation of common functions. Shared service centers, which centralize administrative operations such as human resources, finance, procurement and IT support, create economies of scale and standardize processes across departments (Krücken *et al.*, 2020). Inter-institutional collaborations extend efficiency benefits beyond organizational boundaries. Purchasing consortia enable groups of institutions to leverage collective buying power for goods and services, reducing acquisition costs and administrative overhead. Academic collaborations, such as joint degree programs and shared faculty appointments, allow institutions to expand

offerings while controlling costs. Digital transformation initiatives represent perhaps the most significant opportunity for efficiency enhancement in contemporary tertiary institutions. Enterprise resource planning (ERP) systems integrate previously siloed administrative functions—finance, human resources, student information, and facilities management—creating unified data environments that streamline operations and reduce manual processes (Henderson *et al.*, 2020).

Organizational culture transformation represents perhaps the most challenging but essential aspect of sustainable efficiency improvement. Institutional cultures that value evidence-based decision-making, continuous improvement, and resource stewardship provide fertile ground for efficiency initiatives (Kezar *et al.*, 2021). Leadership commitment at all levels, from executive sponsors to departmental champions, reinforces the importance of efficiency as an institutional priority. The University of Pittsburgh's culture transformation initiative, which established efficiency and innovation as core values, created an environment conducive to ongoing improvement (Kezar & Holcombe, 2020).

Tertiary institutions have access to a diverse array of evidence-based approaches for enhancing organizational efficiency. Process redesign methodologies, strategic resource allocation, organizational restructuring, digital transformation, data-driven performance management and operational optimization strategies offer significant potential for efficiency improvement. However, successful implementation requires attention to both technical systems and human factors, particularly change management and cultural transformation. By adopting comprehensive, integrated approaches to efficiency enhancement, tertiary institutions can optimize resource utilization while maintaining focus on their

core educational missions. As the higher education landscape continues to evolve amid resource constraints and increasing competition, the capacity to identify and implement efficiency improvements will remain essential for institutional sustainability and effectiveness.

Statement of the Problem

Tertiary institutions in Ekiti State appears to face significant challenges in organizational efficiency that impede optimal educational delivery and administrative functioning. These institutions grapple with bureaucratic bottlenecks, inadequate technological infrastructure, and inefficient resource allocation processes, which may result in delays in decision-making, redundancies in administrative procedures, and suboptimal utilization of human and material resources. The existing organizational structures often feature fragmented communication channels between academic and administrative departments, leading to operational issues that hinder collaborative problem-solving and institutional responsiveness to stakeholder needs. These efficiency challenges are exacerbated by underdeveloped performance management systems, inconsistent quality assurance mechanisms, and limited staff development opportunities. Without addressing these organizational inefficiencies, tertiary institutions in Ekiti State may likely continue to struggle with meeting their core educational missions, maintaining competitive advantage in the higher education landscape, and contributing effectively to regional socioeconomic development through quality education and research outputs. It is on this note that the study intends to investigate ways to improve organizational efficiency through digital technologies in tertiary institutions in Ekiti State.

Purpose of the Study

The main purpose of the study is to examine ways of improving organizational efficiency through digital technologies in tertiary institutions in Ekiti State. Specifically, the study:

- i. evaluated the impact of digital transformation initiatives on administrative processes in tertiary institutions in Ekiti State;
- ii. assessed the effectiveness of various resource allocation in optimizing organizational efficiency in tertiary institutions in Ekiti State;
- iii. investigated the current state of organizational efficiency in tertiary institutions in Ekiti State;
- iv. assessed institutional governance structures in tertiary institutions in Ekiti State;
- v. investigated the role of organizational culture in optimizing organizational efficiency in tertiary institutions in Ekiti State.

Research Questions

The following research questions were raised to guide the study:

1. What is the current state of organizational efficiency in tertiary institutions in Ekiti State?
2. What are the institutional governance structures in tertiary institutions in Ekiti State?
3. What are the impacts of digital transformation initiatives on administrative processes in tertiary institutions in Ekiti State?
4. How effective are the various resource allocation in optimizing organizational efficiency in tertiary institutions in Ekiti State?
5. What are the roles of organizational culture in optimizing organizational efficiency in tertiary institutions in Ekiti State?

Research Hypotheses

The following null hypotheses were formulated for this study:

- i. There is no significant relationship between institutional governance structures and organizational efficiency in tertiary institutions in Ekiti State;
- ii. There is no significant relationship between digital transformation initiatives and organizational efficiency in tertiary institutions in Ekiti State;
- iii. Resource allocation will not significantly influence organizational efficiency in tertiary institutions in Ekiti State;
- iv. There is no significant influence of organizational culture on organizational efficiency in tertiary institutions in Ekiti State.

Methodology

The descriptive survey research design was adopted for this study. The study population comprised all 3,912 administrative staff from tertiary institutions in Ekiti State, (made up of Ekiti State University Ado-Ekiti, Federal University Oye-Ekiti, Bamidele Olumilua University of Education, Science and Technology Ikere-Ekiti and Federal Polytechnic Ado-Ekiti). The sample for the study consisted of 400 respondents selected from the total population of administrative staff of tertiary institutions in Ekiti State, selected using simple random sampling technique. A self-designed questionnaire was used for the collection of data. To ensure the validity of the instrument, the instrument was subjected to face and content validation by various experts. The reliability of the instrument was determined through test-retest method, which gave a reliability coefficient of 0.79. The data collected through the instruments will be analyzed using descriptive and inferential statistics.

Results

Research Question 1: What is the current state of organizational efficiency in tertiary institutions in Ekiti State?

Table 1: Descriptive Analysis showing the current state of organizational efficiency

S/N	Items	\bar{x}	SD	Remarks
1	Our institution consistently meets deadlines for academic and administrative processes without compromising quality standards	2.43	0.87	Low
2	There is minimal duplication of tasks and responsibilities across different departments within our institution	2.38	0.92	Low
3	Decision-making processes in our institution are streamlined and do not cause unnecessary delays in operations	2.29	0.84	Low
4	Our institution effectively utilizes available human resources to maximize productivity and minimize waste	2.67	0.96	High
5	Communication channels between different organizational levels function efficiently to support overall institutional performance	2.41	0.88	Low
Grand Mean		2.44		Low
N = 400		Mean Cut off = 2.50		

Table 1 reveals the current state of organizational efficiency in tertiary institutions in Ekiti State with a grand mean of 2.44 (below the cut-off of 2.50),

indicating a moderately low level of efficiency overall.

Research Question 2: What are the institutional governance structures in tertiary institutions in Ekiti State?

Table 2: Descriptive Analysis showing the institutional governance structures in tertiary institutions

S/N	Items	\bar{x}	SD	Remarks
1	The governance structure in our institution clearly defines roles, responsibilities, and accountability at all levels	2.78	1.04	High
2	There is effective coordination between the governing board, senior management, and academic departments in policy implementation	2.52	0.94	High
3	Our institutional governance promotes transparency and ensures stakeholder participation in major decision-making processes	2.34	0.89	Low
4	The current governance framework adequately supports both academic freedom and administrative efficiency	2.61	0.98	High
5	Policies and procedures are regularly reviewed and updated to reflect changing institutional needs and external requirements	2.45	0.91	Low
Grand Mean		2.54		High
N = 400		Mean Cut off = 2.50		

Table 2 demonstrates the institutional governance structures in tertiary institutions in Ekiti State with a grand mean of 2.54 (above the cut-off of 2.50), indicating a moderately high level of governance effectiveness.

Research Question 3: What are the impacts of digital transformation initiatives on administrative processes in tertiary institutions in Ekiti State?

Table 3: Descriptive Analysis showing the impacts of digital transformation initiatives

S/N	Items	\bar{x}	SD	Remarks
1	Digital transformation initiatives have significantly reduced the time required to complete routine administrative tasks in our institution	2.72	1.06	High
2	The implementation of digital systems has improved the accuracy and reliability of administrative data management	2.85	1.12	High

3	Staff members have been adequately trained and supported during the transition to digital administrative processes	2.31	0.85	Low
4	Digital transformation has enhanced communication and collaboration between different departments and stakeholders	2.56	0.97	High
5	The integration of digital technologies has reduced operational costs while maintaining or improving service quality	2.48	0.93	Low
Grand Mean		2.58		High
N = 400		Mean Cut off = 2.50		

Table 3 shows the impacts of digital transformation initiatives on administrative processes in tertiary institutions in Ekiti State with a grand mean of 2.58 (above the cut-off of 2.50), indicating a moderately high positive impact overall.

Research Question 4: How effective are the various resource allocation in optimizing organizational efficiency in tertiary institutions in Ekiti State?

Table 4: Descriptive Analysis showing the effectiveness of resource allocation

S/N	Items	\bar{x}	SD	Remarks
1	Our institution allocates financial resources based on clear priorities that align with strategic performance indicators	2.39	0.86	Low
2	Human resources are deployed effectively across departments to ensure optimal utilization of skills and expertise	2.63	0.99	High
3	Physical infrastructure and facilities are allocated and maintained in a manner that supports efficient operations	2.47	0.92	Low
4	There is a systematic approach to monitoring and evaluating the impact of resource allocation decisions on organizational performance	2.33	0.81	Low
5	Resource allocation processes involve appropriate stakeholder consultation and consider both short-term needs and long-term sustainability	2.42	0.88	Low
Grand Mean		2.45		Low
N = 400		Mean Cut off = 2.50		

Table 4 reveals the effectiveness of resource allocation in optimizing organizational efficiency in tertiary institutions in Ekiti State with a grand mean of 2.45 (below the cut-off of 2.50),

indicating a moderately low level of effectiveness overall.

Research Question 5: What are the roles of organizational culture in optimizing organizational efficiency in tertiary institutions in Ekiti State?

Table 5: Descriptive Analysis showing the roles of organizational culture

S/N	Items	\bar{x}	SD	Remarks
1	The organizational culture in our institution promotes collaboration and teamwork across different departments and levels	2.68	1.01	High
2	There is a strong culture of continuous improvement and innovation that drives efficiency enhancement initiatives	2.54	0.96	High

3	Our institutional culture encourages open communication, feedback, and constructive problem-solving approaches	2.47	0.90	Low
4	The organizational culture supports employee engagement and motivation, contributing to higher productivity levels	2.59	0.98	High
5	Cultural values and practices in our institution align with efficiency goals and support the achievement of organizational objectives	2.51	0.93	High
Grand Mean		2.56		High
N = 400		Mean Cut off = 2.50		

Table 5 demonstrates the roles of organizational culture in optimizing organizational efficiency in tertiary institutions in Ekiti State with a grand mean of 2.56 (above the cut-off of 2.50), indicating a moderately high positive influence of organizational culture.

Test of Hypotheses

Hypothesis One: There is no significant relationship between institutional governance structures and organizational efficiency in tertiary institutions in Ekiti State

Table 6: Pearson Correlation Analysis showing the relationship between institutional governance structures and organizational efficiency in tertiary institutions

Variables	N	Mean (\bar{x})	SD	r	P
Institutional Governance Structures	400	2.54	0.95	0.612*	0.000
Organizational Efficiency	400	2.44	0.89		

$p < 0.05$ (Significant)

Table 6 shows a significant positive relationship between institutional governance structures and organizational efficiency in tertiary institutions in Ekiti State, $r = 0.612$, p -value = 0.000 ($p < 0.05$). Therefore, the hypothesis formulated which states that there is no significant relationship between institutional

governance structures and organizational efficiency in tertiary institutions in Ekiti State was rejected.

Hypothesis Two: There is no significant relationship between digital transformation initiatives and organizational efficiency in tertiary institutions in Ekiti State

Table 7: Pearson Correlation Analysis showing the relationship between digital transformation initiatives and organizational efficiency in tertiary institutions

Variables	N	Mean (\bar{x})	SD	r	P
Digital Transformation Initiatives	400	2.58	0.99	0.537*	0.000
Organizational Efficiency	400	2.44	0.89		

$p < 0.05$ (Significant)

Table 7 shows a significant positive relationship between digital transformation initiatives and organizational efficiency in tertiary institutions in Ekiti State, $r = 0.537$, p -value = 0.000 ($p < 0.05$). Therefore, the hypothesis formulated which states that there is no significant relationship between

digital transformation initiatives and organizational efficiency in tertiary institutions in Ekiti State was rejected.

Hypothesis Three: Resource allocation will not significantly influence organizational efficiency in tertiary institutions in Ekiti State

Table 8: Pearson Correlation Analysis showing the influence of resource allocation on organizational efficiency in tertiary institutions in Ekiti State

Variables	N	Mean (\bar{x})	SD	r	p
Resource Allocation	400	2.45	0.89	0.684*	0.000
Organizational Efficiency	400	2.44	0.89		

$p < 0.05$ (Significant)

Table 8 shows a significant positive relationship between resource allocation and organizational efficiency in tertiary institutions in Ekiti State, $r = 0.684$, p -value = 0.000 ($p < 0.05$). Therefore, the hypothesis formulated which states that resource allocation will not significantly influence organizational efficiency in

tertiary institutions in Ekiti State was rejected.

Hypothesis Four: There is no significant influence of organizational culture on organizational efficiency in tertiary institutions in Ekiti State

Table 9: Pearson Correlation Analysis showing the influence of organizational culture on organizational efficiency in tertiary institutions in Ekiti State

Variables	N	Mean (\bar{x})	SD	r	p
Organizational Culture	400	2.56	0.96	0.591*	0.000
Organizational Efficiency	400	2.44	0.89		

$p < 0.05$ (Significant)

Table 9 shows a significant positive relationship between organizational culture and organizational efficiency in tertiary institutions in Ekiti State, $r = 0.591$, p -value = 0.000 ($p < 0.05$). Therefore, the hypothesis formulated which states that there is no significant influence of organizational culture on organizational efficiency in tertiary institutions in Ekiti State was rejected.

Discussion

The findings of the study revealed a moderately low level of organizational efficiency in tertiary institutions in Ekiti State. This finding aligns with the observations of Adebayo and Ogunniyi (2019) who noted that many Nigerian tertiary institutions struggle with efficiency challenges stemming from inadequate administrative systems and poor coordination mechanisms. The particularly low performance in decision-making processes corroborates the findings of Okwu, Obiakor, and Oluka (2020), who identified slow decision-making as a

critical impediment to organizational effectiveness in Nigerian universities. While human resource utilization showed relatively better, the overall efficiency challenges reflect systemic issues that require comprehensive institutional reforms to enhance operational effectiveness and service delivery in the higher education sector.

The analysis of institutional governance structures revealed a moderately high level of effectiveness in Ekiti State tertiary institutions. This finding is consistent with the research by Teshome (2019), who emphasized that clear role definition and accountability structures are fundamental to effective institutional governance in higher education. The strong performance in role definition and accountability supports the assertions of Maassen and Stensaker (2019) that well-structured governance frameworks contribute significantly to institutional performance. However, the low scores in transparency and stakeholder participation echo the concerns raised by Salmi (2018)

regarding the need for more inclusive governance practices in developing country universities. The findings suggest that while basic governance structures exist, there is substantial room for improvement in participatory governance and transparency mechanisms.

The findings of the study demonstrated that digital transformation initiatives have had a moderately high positive impact on administrative processes in tertiary institutions. This finding aligns with the research by Guri-Rosenblit (2018), who highlighted the transformative potential of digital technologies in streamlining administrative operations in higher education. The exceptional performance in data management accuracy supports the conclusions of Bond, Marín, Dolch, Bedenlier and Zawacki-Richter (2018), who noted that digital systems significantly enhance data reliability and administrative efficiency. However, the low performance in staff training and support reflects the challenges identified by Howard, Tondeur, Siddiq and Scherer (2019) regarding the critical need for comprehensive change management strategies during digital transformation.

The findings of the study also revealed a moderately low level of effectiveness in resource allocation which resonates with the observations of Altbach and Hazelkorn (2017), who noted that resource allocation inefficiencies are common challenges facing tertiary institutions in developing countries. The relatively better performance in human resource deployment aligns with the findings of Tight (2019), who emphasized that effective human resource management is often the strength of educational institutions even when other resources are poorly managed. The particularly weak performance in monitoring and evaluation systems corroborates the research by Okebukola (2020), who identified inadequate performance monitoring as a

critical weakness in Nigerian higher education management.

The findings of the study further found out that organizational culture plays a moderately high positive role in optimizing organizational efficiency. This finding supports the research by Cameron and Quinn (2011), who established that organizational culture is a powerful determinant of institutional effectiveness and efficiency. The strong performance in collaboration and teamwork aligns with the conclusions of Schein and Schein (2017), who emphasized that collaborative cultures are essential for organizational success in complex institutions like universities. The moderate performance in open communication and feedback culture reflects the challenges identified by Kezar and Eckel (2012) regarding the difficulty of establishing transparent communication systems in hierarchical academic institutions. The findings suggest that while positive cultural elements exist, there is potential for further cultural development to enhance organizational efficiency.

The findings of the study also revealed a significant positive relationship between institutional governance structures and organizational efficiency, indicating that effective governance structures are strongly associated with improved organizational performance. This finding strongly supports the empirical research by Austin and Jones (2016), who demonstrated that well-structured governance systems create enabling environments for institutional effectiveness. The strength of this relationship aligns with the study of Marginson and Considine (2000), who argued that governance quality is a critical determinant of university performance and efficiency. The significant correlation validates the importance of investing in governance reforms and structural improvements as fundamental strategies for enhancing organizational efficiency in tertiary institutions.

The study revealed a significant positive relationship between digital transformation initiatives and organizational efficiency, demonstrating that digital innovations contribute meaningfully to institutional performance improvement. This finding corroborates the research by Selwyn (2014) and the more recent work of García-Peñalvo and Corell (2020), who highlighted the transformative impact of digital technologies on educational administration and service delivery. The moderate to strong correlation supports the conclusions of Henderson, Selwyn & Aston, (2017), who found that well-implemented digital transformation initiatives create substantial efficiency gains in higher education institutions. The relationship strength suggests that continued investment in digital infrastructure and capabilities represents a viable strategy for improving organizational efficiency, though the correlation also indicates that technology alone is not sufficient without complementary organizational changes.

The findings revealed that resource allocation showed a significant positive influence on organizational efficiency. The strength of this relationship aligns with the study of Johnstone *et al.* (2017), who found that effective resource allocation is the most critical factor determining institutional performance in resource-constrained environments. This finding emphasizes that improving resource allocation mechanisms should be the highest priority for institutions seeking to enhance organizational efficiency. Findings revealed a significant positive relationship between organizational culture and organizational efficiency. The correlation strength aligns with the findings of Hartnell *et al.* (2011), who demonstrated consistent relationships between organizational culture and performance across various institutional types. The significant relationship validates the conclusions of Kezar and Eckel (2012) that cultural

transformation is essential for sustainable organizational improvement in academic institutions. The finding underscores the importance of deliberate cultural development strategies as integral components of organizational efficiency enhancement initiatives in tertiary institutions.

Conclusion

Based on the findings of the study, it was concluded that governance structures, digital transformation initiatives, resource allocation and organizational culture are significant ways to improve organizational efficiency. The findings demonstrate that resource allocation emerges as the most critical determinant of organizational efficiency, followed by governance structures and organizational culture.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. Tertiary institutions should implement comprehensive process to streamline decision-making procedures, eliminate task duplication, and establish clear communication protocols across all organizational levels;
2. Institutions must develop transparent governance frameworks that promote stakeholder participation in decision-making processes and establish regular policy review;
3. Management should prioritize comprehensive staff training programmes and change management strategies to support;
4. Institutions need to establish systematic monitoring and evaluation frameworks for resource allocation decisions,
5. Leadership should foster open communication cultures that encourage feedback, constructive

- problem-solving, and transparent information sharing across all organizational levels and departments.
6. Institutions should strengthen the linkage between governance structures and operational efficiency by establishing performance-based governance metrics and accountability mechanisms that directly support efficiency goals.
 7. Management must develop integrated digital transformation strategies that combine technological implementation with organizational restructuring to maximize efficiency gains and ensure sustainable digital adoption.
 8. Institutions should implement strategic resource allocation models that prioritize efficiency-enhancing investments and establish clear performance indicators to measure resource utilization effectiveness.
 9. Leadership needs to deliberately cultivate organizational cultures that explicitly value and reward efficiency-oriented behaviour, innovation, and continuous improvement practices across all institutional activities.

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