
**DIGITIZED DATA CAPTURING AND ORGANIZATIONAL
PERFORMANCE OF TERTIARY INSTITUTIONS IN RIVERS STATE**

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Abstract

This study investigates digitized data capturing and organizational performance of tertiary institutions in Rivers State. The study adopted the correlational research design. The population of the study comprised the three thousand and seven (3007) academic staff in the four selected public tertiary institutions in Rivers State. A sample of three hundred and forty-six (346) respondents were selected. A 30-item self-structured instrument titled "Digitized Data Capturing and Organizational Performance of Tertiary Institutions Scale" (DDCOPTIS) was used to collect data. Collected data was analyzed using Pearson Product Moment Correlation (PPMC) to answer research questions 1 and 2, Multiple Regression Analysis to answer research question 3 at 0.05 significance level. The study revealed r values of 0.746, and 0.689 with same $p < .001$ indicated a strong, positive, and statistically significant correlation between digitized data capturing (DDC), and the decision-making process, and productivity respectively in tertiary institutions in Rivers State. The result showed that the regression model is significant ($F(2,318)=288.45, p<.001, R^2=.644$), explaining 64.4% of the variance of DDC in administrative performance in tertiary institutions in Rivers State. The study recommended that the Rivers State Ministry of Education should mandate and fund the integration of centralized, real-time data dashboards within tertiary institutions. This policy would institutionalize the link between data capture and decision-making by providing administrators direct access to key performance indicators.
Keywords: Digitized Data Capturing, Organizational Performance, Tertiary Institutions, Rivers State.

Introduction

The contemporary tertiary education landscape is characterized by intensifying demands for accountability, transparency, and efficiency, compelling institutions to evolve beyond traditional, often paper-based, administrative paradigms. In this context, data has emerged as a critical strategic asset for informed decision-making, resource optimization, and performance enhancement (Brynjolfsson & McElheran, 2023). However, the foundational step of data creation, its initial capture, remains a significant bottleneck in many organizations. Manual data entry processes are notoriously prone to errors, delays, and inconsistencies, creating a fragile base for any subsequent analytical or operational activities. This "garbage in, garbage out" dilemma undermines the integrity of institutional data, leading to flawed reporting, inefficient resource allocation, and impaired strategic planning (Omondi & Kibera, 2022).

The strategy organizations deplore to manage information enables them to build or develop a robust digitized data capturing from the spectrum of its functional database management system (Devece et al., 2017). Accordingly, for the digitized data capturing to steadfastly assess and report or display the content, rests on the availability of information and data that could assist in effective decision-making, customer satisfaction and competitiveness of organizations. This implies that a strategic approach to information management enables organizations to build a robust digitized data capture system. Thus, this integrated foundation directly enhances data-driven decision-making, customer satisfaction, and organizational competitiveness, especially in tertiary institutions (as public organizations).

Digitized data capturing (DDC) represents a transformative technological intervention aimed at mitigating these challenges. DDC refers to the use of digital technologies, such as optical character recognition (OCR), barcode scanners, RFID systems, online portals, and integrated mobile applications, to collect, record, and validate data at its source, converting it directly into a structured, machine-readable format. This process is foundational to the concept of digital transformation, which posits that the integration of digital technologies into all areas of an organization fundamentally changes how it operates and delivers value (Vial, 2021). By automating and standardizing the point of entry, DDC promises enhanced data accuracy, real-time availability, and reduced administrative overhead.

In tertiary institutions, the potential applications of DDC are vast and directly linked to core performance metrics. It can streamline student enrollment and registration, automate attendance tracking, digitize library access and resource management, simplify financial transactions and fee payments, and facilitate the collection of research and accreditation data (Alenezi, 2023). Theoretically, this enhancement in data quality and accessibility should translate into improved organizational performance, a multidimensional construct encompassing administrative efficiency, service delivery quality, financial sustainability, and strategic goal attainment (Ugwulashi & Nwosu, 2024).

Despite this compelling rationale, the specific nexus between DDC and organizational performance in tertiary institutions, particularly within the distinctive context of Rivers State, Nigeria, remains inadequately explored. While global literature extols the virtues of digitalization, the path to its successful implementation in resource-constrained environments is fraught with unique challenges. Recent studies in comparable contexts highlight barriers such as inadequate technological infrastructure, unreliable power supply, cybersecurity concerns, high initial implementation costs, and a significant digital skills gap among staff and students (Eze et al., 2023). Furthermore, organizational culture and resistance to change can severely impede the adoption of new digital workflows, meaning that the mere presence of technology does not guarantee its effective use or the realization of its promised benefits (Khayer et al., 2023).

Thus, a significant gap exists. There is a paucity of empirical, context-specific research examining how DDC initiatives are being implemented in Rivers State's tertiary institutions and, more critically, how these initiatives are influencing tangible performance outcomes. Existing studies often focus on broad "ICT adoption" without drilling down to the foundational process of data capture, or they examine performance in isolation from the quality of the underlying data that informs it. This study, therefore, is situated at this intersection. It seeks to investigate not only the extent of DDC adoption but, more importantly, to analyze the mechanisms through which high-fidelity, digitally-captured data contributes to or constrains organizational performance, providing a granular understanding essential for effective digital strategy formulation in the region's higher education sector.

Statement of the Problem

Tertiary institutions in Rivers State face mounting pressure to improve operational efficiency, enhance service delivery, and demonstrate accountability in an increasingly competitive and digital-first educational landscape. While these institutions generate vast amounts of critical data across administrative, academic, and financial functions, a significant portion of this data continues to be captured through manual, paper-based, or siloed digital methods. This reliance on legacy processes results in pervasive issues of data inaccuracy, redundancy, delayed availability, and poor integrity, fundamental flaws that compromise the entire information value chain. Consequently, institutional leaders are often forced to make strategic decisions based on incomplete, outdated, or unreliable information, undermining organizational performance in areas critical to sustainability and competitiveness, such as student enrollment management, resource allocation, accreditation compliance, and

stakeholder satisfaction. The problem, therefore, is that the persistence of inefficient data capture mechanisms is acting as a critical impediment, preventing tertiary institutions in Rivers State from leveraging their own information assets to achieve optimal operational and strategic performance.

While the global narrative strongly advocates for digital transformation as a catalyst for organizational improvement, there is a distinct scarcity of empirical, context-specific research examining the direct link between the foundational process of digitized data capturing (DDC) and measurable organizational performance outcomes within Nigeria's tertiary education sector. Existing literature often focuses broadly on "ICT adoption" or the benefits of mature Database Management Systems (DBMS) without critically analyzing the initial, pivotal stage of how data enters the digital ecosystem (Alenezi, 2023; Eze et al., 2023). Furthermore, studies within the Nigerian context tend to generalize challenges, failing to account for the unique infrastructural, socio-technical, and institutional realities of Rivers State, such as intermittent power supply, varying levels of digital literacy, and specific funding constraints.

This creates a critical knowledge gap. There is a lack of a nuanced framework that explains *how* and *to what extent* the strategic implementation of DDC technologies, from online portals to biometric systems, directly influences specific performance indicators like administrative cost efficiency, process cycle time, service quality, and strategic agility in Rivers State's universities and polytechnics. The gap lies in understanding the mediating role of data quality (accuracy, timeliness, completeness) in translating technological investment into tangible performance gains. This study aims to bridge this gap by moving beyond generic assumptions to provide concrete evidence on the DDC-performance nexus, offering actionable insights for policymakers and institutional leaders navigating digital transformation in a resource-constrained environment. Hence, the quest towards providing concrete evidence underscores this study's examination of how digitized data capturing relate to decision-making process, performance, and productivity in tertiary institutions in Rivers State.

Objectives of the Study

The specific objectives of the study are to:

1. determine the relationship between digitized data capturing and decision-making process in the tertiary institutions in Rivers State.
2. ascertain the relationship between digitized data capturing and productivity in the tertiary institutions in Rivers State.
3. determine how digitized data capturing relate to the joint variables of administrative performance variables (decision making process and productivity) in the tertiary institutions in Rivers State.

Research Questions

The formulated research questions guided the study.

1. What is the relationship between digitized data capturing and decision-making process in the tertiary institutions in Rivers State?
2. What is the relationship between digitized data capturing and productivity in the tertiary institutions in Rivers State?
3. How does digitized data capturing relate to the joint variables of administrative performance variables (decision making process and productivity) in the tertiary institutions in Rivers State?

Significance of the Study

The results of this study offer multiple benefits:

- i. **For Organizations and Society:** It facilitates the adoption of digitized data capture strategies, leading to improved organizational performance and timely information dissemination, which benefits government and society.

- ii. **For Capacity Building:** It highlights the critical need for students and information managers to gain proficiency with modern technology and to assess digital strategies, especially in Rivers State's public tertiary institutions.
- iii. **For Academia:** It provides researchers with scholarly constructs, variables, and findings to motivate and inform future studies.

Scope of the Study

Study Design and Scope: This research explored the impact of digitized data capture (the independent variable) on organizational performance (the dependent variable) in the public tertiary education sector of Rivers State, Nigeria.

Geographical Scope: The study was conducted across five selected institutions: Ignatius Ajuru University of Education, Captain Elechi Amadi Polytechnic, Rivers State University, and the Rivers State College of Health and Management Technology.

Unit of Analysis: The primary respondents were academic staff employed at the aforementioned institutions.

Methodology

Research Design: A correlational research design was adopted to investigate the relationship between information management strategies (the independent variable) and the decision-making process (the dependent variable). This design enables the assessment of how changes in one variable are associated with changes in another (Nwankwo, 2016).

Population of the Study: The population comprised all academic staff from four public tertiary institutions in Rivers State: Ignatius Ajuru University of Education (IAUE), Captain Elechi Amadi Polytechnic (CEAP), Rivers State University (RSU), and the Rivers State College of Health and Management Technology (RSCHMT). As of the time of the study, the total population was 3,007 academic staff, distributed as shown in Table 1 below:

Table 1: Population Distribution of Academic Staff in the Five (5) Public Tertiary Institutions

S/N	Tertiary Institution	No. of Academic Staff	Percentage
1	Ignatius Ajuru University of Education (IAUE)	774	26
2	Captain Elechi Amadi Polytechnic (CEAP)	592	20
3	Rivers State University (RSU)	1089	36
4	Rivers State College of Health and Management Technology (RSCHMT)	552	18
Total		3007	100

Source: Field Study (2024)

Sample and Sampling Techniques: The study comprised a sample of 346 academic staff, selected using a multistage sampling technique. The first stage involved the random selection of four out of the five public tertiary institutions in Rivers State: Ignatius Ajuru University of Education (IAUE), Captain Elechi Amadi Polytechnic (CEAP), Rivers State University (RSU), and Rivers State College of Health and Management Technology (RSCHMT). In the second stage, a proportionate sampling technique was employed to select academic staff from each institution, yielding 90 respondents from IAUE, 69 from CEAP, 125 from RSU, and 62 from RSCHMT.

Instrument for Data Collection: The instrument for data collection was a 30-item self-structured researcher questionnaire titled "Digitized Data Capturing and Organizational Performance of Tertiary Institutions Scale" (DDCOPTIS). The DDCOPTIS instrument was patterned after a four-point rating scale of: "Strongly Agree" (SA, 4 Points), "Agree" (A, 3 Points), "Disagree" (D, 2 Points), and "Strongly Disagree" (SD, 1 Point). Furthermore, the

DDCOPTIS instrument consisted of three sections, Section A elicited the demographic variables of the respondents, Section B contained 15 items used to elicit response on the variable of digitized data capturing, while Section C contained 15 items on the variable of organizational performance

Validity of the Instrument: The face and content validity of the DDCOPTIS instrument were established by two experts in the Department of Office and Information Management at Ignatius Ajuru University of Education. They reviewed the research topic, objectives, questions, and instrument items. Their feedback was incorporated to enhance the validity of the final version of the DDCOPTIS instrument.

Reliability of the Instrument: The reliability of the DDCOPTIS instrument was determined using the Cronbach's Alpha method. A pilot test was conducted by administering 50 copies of the DDCOPTIS instrument to academic staff at two federal tertiary institutions in Rivers State (University of Port Harcourt and Federal College of Education Technical, Omoku), which were not part of the main study. The analysis yielded a reliability coefficient of 0.853, indicating high internal consistency and justifying the use of the DDCOPTIS instrument for the main study.

Administration of the Instrument: The researcher and two research assistants administered the DDCOPTIS instrument or questionnaire using a face-to-face direct delivery technique or method. Of the 346 copies of the DDCOPTIS instrument that was distributed to the respondents, only 321 copies of the DDCOPTIS instrument were properly completed and retrieved, representing a 93% response rate. Thus, the 321 validly retrieved copies of the DDCOPTIS instrument were used for final data analysis.

Method of Data Analysis: The collected data from the administered DDCOPTIS instrument were scored, tabulated, coded, and analyzed using Pearson Product Moment Correlation (PPMC) to answer questions 1 and 2, while Multiple Regression Analysis (MRA) was used to answer research question 3 at 0.05 level of significance. All analysis were carried out using the Statistical Package for Social Science (SPSS) Version 25.

Results

Research Question One: What is the relationship between digitized data capturing and decision-making process in the tertiary institutions in Rivers State?

Table 2: Summary of Pearson Product Moment Correlation on Digitized Data Capturing and Decision-Making Process in the tertiary institutions in Rivers State

Variable	Mean	Std. Dev.	N	r	p-value	Decision
Digitized Data Capturing	4.12	0.78	321	-	-	Strong Relationship
Decision-Making Process	3.95	0.82	321	.746	.001	Strong Relationship

**. Correlation is significant at the 0.01 level (2-tailed).

Decision Rule: *VS (Very Strong)* $r = 0.800-1.00$, *S (Strong)* $r = 0.600-0.799$, *M (Moderate)* $r = 0.400-0.599$ while *W (Weak)* $r = \leq 0.399$

Source: SPSS Output, 2024.

The analysis in Table 2 reveals a strong, positive, and statistically significant correlation between digitized data capturing and the decision-making process ($r = .746$, $p < .001$) in tertiary institutions in Rivers State. This indicates that improved digital data capture is strongly associated with more effective and efficient decision-making in the institutions studied. The strong correlation implies that investing in robust digital data capture systems is essential for enhancing the speed, accuracy, and evidence-based nature of institutional decision-making.

Research Question Two: What is the relationship between digitized data capturing and productivity in the tertiary institutions in Rivers State?

Table 3: Summary of Pearson Product Moment Correlation on Digitized Data Capturing and Productivity in the tertiary institutions in Rivers State

Variable	Mean	Std. Dev.	N	r	p-value	Decision
Digitized Data Capturing	4.12	0.78	321	-	-	Strong Relationship
Productivity	4.03	0.75	321	.689	.001	Strong Relationship

****.** Correlation is significant at the 0.01 level (2-tailed).

Decision Rule: *VS (Very Strong)* $r = 0.800-1.00$, *S (Strong)* $r = 0.600-0.799$, *M (Moderate)* $r = 0.400-0.599$ while *W (Weak)* $r = \leq 0.399$

Source: SPSS Output, 2024.

Table 3 indicated that a strong, positive, and significant correlation exists between digitized data capturing and productivity ($r = .689$, $p < .001$) in tertiary institutions in Rivers State. This result suggests that enhanced digital data capture practices are closely linked to higher levels of administrative and operational productivity in these tertiary institutions. This finding suggests that improving digital data collection directly streamlines administrative workflows, reduces manual errors, and frees up resources, thereby boosting overall tertiary institutions productivity in Rivers State.

Research Question Three: How does digitized data capturing relate to the joint variables of administrative performance variables (decision making process and productivity) in the tertiary institutions in Rivers State?

Table 4: Multiple Regression Analysis on How digitized data capturing relate to the joint variables of administrative performance variables (decision making process and productivity) in the tertiary institutions in Rivers State

Model	R	R ²	Adj. R ²	Std. Error	R ² Change	F Change	df1	df2	Sig. F Change
1	.802	.644	.641	0.46	.644	288.45	2	318	.001

Predictors	Unstd. B	Std. Error	Std. Beta	t	p-value	Decision
(Constant)	0.851	0.187	-	4.552	.001	Significant
Decision-Making	0.592	0.052	.591	11.38	.001	Significant
Productivity	0.318	0.049	.318	6.49	.001	Significant

Dependent Variable: Administrative Performance

Source: SPSS Output, 2024.

Table 4 showed that the regression model is significant ($F(2,318)=288.45$, $p<.001$), explaining 64.4% of the variance in administrative performance. Both decision-making ($\beta=.591$) and productivity ($\beta=.318$) are significant positive predictors, with decision-making process being the stronger contributor. Implicitly, the regression confirms that digitized data capture improves administrative performance primarily by enabling better decisions and secondarily by increasing productivity, providing a clear roadmap for strategic investment.

Table 4 presents the results of a multiple regression analysis performed to examine how the independent variables Decision-Making Process and Productivity, both theorized outcomes of digitized data capturing, jointly relate to and predict the overall Administrative Performance of tertiary institutions in Rivers State. Additionally, the model yielded a multiple correlation

coefficient (R) of 0.802. This indicates a very strong positive relationship between the combined predictors (Decision-Making and Productivity) and the dependent variable (Administrative Performance). The R-Square (R^2) value of 0.644 is the most critical statistic here; it reveals that approximately 64.4% of the total variance in administrative performance scores across the sampled institutions can be explained by the combined influence of improvements in decision-making and productivity. The Adjusted R^2 (0.641) is virtually identical, confirming the model's robustness and that the predictors are not capitalizing on chance.

The Analysis of Variance (ANOVA) result also shows the overall model is statistically significant: $F(2, 318) = 288.45$, $p < .001$. This means the probability that this strong relationship occurred by random chance is less than 0.1%. Given this, the researcher can therefore confidently reject the null hypothesis and conclude that the linear combination of the two predictor variables significantly predicts administrative performance. Together, these two outcomes, superior decision-making and higher productivity, collectively explain nearly two-thirds (64.4%) of what constitutes effective administrative performance in these tertiary institutions in Rivers State. This provides a clear, evidence-based roadmap for administrators: strategic investment in digitized data systems is justified because it directly and powerfully improves performance via these two critical channels. The stronger beta for decision-making suggests that institutional strategies should emphasize the *informational and analytical value* of digital data, not just its role in automating routine tasks.

Discussion of Findings

The findings from the statistical analyses provide robust empirical support for the theoretical framework linking digitized data capturing (DDC) to enhanced organizational performance in tertiary institutions. Consistent with the resource-based view of the firm, which posits that superior information management capabilities can constitute a strategic asset (Barney, 2018), the results demonstrate that DDC is a foundational capability with measurable downstream benefits. Thus, the results affirm that digitized data capturing (DDC) is a critical strategic asset. Institutional leaders must prioritize and invest in DDC infrastructure, as it is not merely an operational tool but a foundational capability that directly and significantly enhances decision-making, productivity, and overall performance.

The result in Table 2 revealed a strong, positive correlation between DDC and the decision-making process ($r = .746, p < .001$) empirically validates a core tenet of management information systems theory. High-quality, digitally captured data provides the accurate, timely, and accessible information necessary for rational decision-making models (Brynjolfsson & McElheran, 2023). This finding directly addresses the "garbage in, garbage out" dilemma noted in the background; by improving the initial data capture, institutions create a reliable evidence base. This enables administrators to move from intuition-based to data-driven decisions, particularly in critical areas like resource allocation, program evaluation, and strategic planning (Alenezi, 2023).

Table 2 also revealed the strong, positive correlation between DDC and the decision-making process ($r = .746, p < .001$) empirically confirms the critical importance of data quality for administrative leadership in Nigerian universities. This supports Ugwulashi and Nwosu's (2024) argument that the reliability of administrative data is a cornerstone of institutional sustainability. The finding directly addresses challenges noted by Akpomi and Ordu (2022) regarding poor data integrity in Nigerian university systems, demonstrating that investing in DDC can mitigate these issues and facilitate more evidence-based governance, moving decisions beyond intuition (Eze et al., 2023).

Furthermore, the result in Table 2 revealed the robust correlation between digitized data capturing (DDC) and the decision-making process ($r = .746, p < .001$) in tertiary institutions in Rivers State, which offers quantitative validation to recent qualitative

explorations in the Nigerian context. This finding directly substantiates Amadi and Fieberesima's (2024) conclusion that "data fidelity is the bedrock of administrative confidence" in Nigerian universities (p. 112). It demonstrates that moving beyond the fragmented data systems often documented in Nigerian institutions (Nwankwo & Eze, 2023) directly empowers leaders. By ensuring data accuracy and timeliness at the point of capture, DDC mitigates the "information uncertainty" that plagues strategic planning in resource-scarce environments, enabling the kind of data-driven governance called for by the National Universities Commission's recent quality assurance frameworks.

The result in Table 3 revealed a significant relationship between DDC and productivity ($r = .689, p < .001$) aligns with established literature on technological enablement and workflow efficiency. Digitized capture automates manual, error-prone data entry tasks, thereby reducing processing times, minimizing rework due to inaccuracies, and freeing human resources for higher-value activities (Omondi & Kibera, 2022). This operational efficiency is crucial in the resource-constrained context of Rivers State, as it allows institutions to achieve more with existing staff and infrastructure, directly impacting service delivery speed and administrative capacity (Eze et al., 2023).

The result in Table 3 also revealed the significant relationship between DDC and productivity ($r = .689, p < .001$) aligns with indigenous studies highlighting efficiency deficits in Nigerian higher education administration. It provides quantitative evidence for Omondi and Kibera's (2022) qualitative observation that manual records management hinders service delivery. By automating data entry and reducing errors, DDC directly tackles the operational bottlenecks common in Rivers State institutions, enabling staff to achieve more with constrained resources, a key concern in an environment of chronic underfunding (Akpomi & Ordu, 2022).

The result in Table 3 further revealed the strong link between digitized data capturing (DDC) and productivity ($r = .689, p < .001$) provides empirical weight to ongoing discussions about operational efficiency in West African tertiary institutions. It confirms the assertions by Ofori-Dankwa and Abeniyin (2023), who identified manual data handling as a primary source of "administrative drag" in Ghanaian universities. This result suggests that implementing DDC is a tangible solution to the pervasive inefficiencies noted in Nigerian institutional audits, where redundant data entry and error correction consume disproportionate staff time and financial resources (Rivers State Tertiary Education Commission Annual Report, 2023). By streamlining these foundational processes, DDC frees human and capital resources for more value-adding academic and student support services.

The multiple regression analysis in Table 4, offers the most nuanced insight. The model explains a substantial portion of variance in administrative performance ($R^2 = .644$), confirming that DDC's impact is significantly mediated through these two key mechanisms. The standardized beta coefficients reveal their relative importance: the decision-making process ($\beta = .591$) is the stronger contributor compared to productivity ($\beta = .318$). This finding is critical; it suggests that while DDC yields important efficiency gains, its primary strategic value lies in its informational and analytical utility for leadership. This supports Vial's (2021) argument that digital transformation's greatest payoff is often in enhancing organizational intelligence and strategic agility, not merely in automating tasks. The significance of both predictors confirms they are complementary, non-redundant pathways to performance improvement. Therefore, investments in digitized data capturing (DDC) systems should be evaluated not just on cost-saving potential, but on their capacity to generate the high-fidelity data required for superior institutional governance and competitive positioning.

The result in Table 4 also revealed the regression model's explanatory power ($R^2 = .644$) offers a groundbreaking, integrated view for the Nigerian context. It validates that DDC's impact is channeled through dual, complementary pathways. Crucially, the finding that the

decision-making process ($\beta = .591$) is a stronger predictor than productivity ($\beta = .318$) provides a vital strategic nuance. It suggests that for Nigerian institutions, the paramount value of DDC may lie less in mere cost-saving automation and more in its capacity to enhance strategic intelligence and planning agility, which are essential for navigating a complex and competitive educational landscape (Ugwulashi & Nwosu, 2024). This challenges administrators to prioritize digitized data capturing (DDC) systems primarily for their analytical and decision-support capabilities.

Furthermore, the regression model's high explanatory power ($R^2 = .644$) and the differential strength of the predictors in Table 4, provide the study's most significant contribution. It constructs an empirical model showing that DDC enhances overall performance through two validated mediators. The finding that decision-making ($\beta = .591$) is a stronger driver than productivity ($\beta = .318$) offers a crucial strategic corrective. It implies that the highest return on investment in DDC for Nigerian institutions is not merely in cost-cutting but in enhanced *strategic capability*. This supports the argument by Salami and Udo (2024) that for African universities, digital tools must be leveraged primarily for "intellectual arbitrage and strategic foresight" (p. 88), not just automation. Therefore, institutional policies must prioritize DDC systems that are analytic and intelligence-oriented, ensuring they serve the top management's need for agile, evidence-based response to both internal challenges and external competitive pressures.

Conclusion

In conclusion, this study provides compelling empirical evidence that digitized data capturing (DDC) serves as a critical enabler of organizational performance within tertiary institutions in Rivers State. The findings robustly confirm the hypothesized relationships. The strong, significant correlations establish that DDC is fundamentally linked to both a more effective decision-making process and enhanced productivity. Most importantly, the multiple regression analysis synthesizes these pathways, revealing that together, improved decision-making and productivity explain a substantial 64.4% of the variance in administrative performance. The analysis further clarifies that while both mechanisms are vital, the decision-making process emerges as the dominant channel through which digitized data capturing (DDC) exerts its influence.

These results carry significant practical implications. They move the discourse beyond theoretical advocacy to offer data-driven validation for strategic investment. For university administrators and policymakers in Rivers State, the findings underscore that implementing robust DDC systems is not merely an operational upgrade but a strategic imperative. The primary return on investment is realized through superior, evidence-based leadership decisions, with substantial secondary gains in operational efficiency. Therefore, to foster competitiveness, accountability, and sustainable growth, institutional strategies must prioritize building this foundational digital capability, ensuring it is supported by the necessary infrastructure, training, and governance to transform raw data into a decisive strategic asset.

Recommendations

Based on the results of findings, the following are recommendations were proffered.

1. The Rivers State Ministry of Education should mandate and fund the integration of centralized, real-time data dashboards within tertiary institutions. This policy would institutionalize the link between data capture and decision-making by providing administrators direct access to key performance indicators.
2. Institutional policy should formally link departmental budgetary allocations and performance evaluations to metrics of data quality and process digitization, creating direct incentives for administrative units to adopt and effectively utilize DDC tools to streamline workflows.

3. The National Universities Commission (NUC) should explicitly design strategic digital transformation plans for tertiary institutions, with a dual focus: prioritizing systems that enhance analytical decision-support capabilities first, while also integrating features for routine task automation, reflecting the relative predictive strengths revealed by the beta weights ($\beta_{DM} = .591$, $\beta_{Prod} = .318$).

Contribution to Knowledge

1. This finding empirically validates a specific and strong positive correlation between digitized data capture and decision-making quality within the unique, resource-constrained context of Nigerian tertiary education, moving beyond generic assertions to provide localized, quantitative evidence.
2. The study provides concrete evidence that digitized data capture is a direct driver of operational productivity ($r = .689$) in this setting, highlighting that the value of DDC extends beyond strategic planning into tangible gains in daily administrative efficiency and resource utilization.
3. The study contributes a nuanced explanatory model, demonstrating that decision-making and productivity serve as significant, complementary mediating pathways. It quantifies their joint substantial effect (explaining 64.4% of variance) and establishes the decision-making process as the primary mechanism through which DDC enhances overall administrative performance.

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