



## Impact of Digitalized Administrative Procedures on Personnel Performance at Borno State University's Department of Education in Maiduguri, Borno State, Nigeria

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**Abstract.** This study assessed the impact of digitalized administrative procedures on personnel performance at Borno State University's Department of Education in Maiduguri, Borno State, Nigeria. The objectives of this study were to determine the extent of utilization of these digital administrative tools by administrative personnel and Impact of digitalized administrative processes on personnel job performance at Borno State University. In order to investigate how digitalized administrative procedures affect human resource job performance at Kashim Ibrahim University in Borno State; this study uses a quantitative survey research approach. The quantitative approach is justified because it enables statistical generalizability to the 80 administrative and human resources staff members of the university by collecting numerical data from a large sample (50 respondents) and allowing for objective measurement of the relationships between digitalization and job performance. Stratified random sampling minimizes bias by guaranteeing proportionate representation across several administrative units. Lack of instrument dependability. A structured questionnaire comprising three sections serves as the research tool: Section A (Demographic Information) collects age, gender, and Department; Section B (Level of Digital Resource Utilization) evaluates the use of tools such as e-filing and HR software; and Section C (Impact and Effects) measures changes in workload, job satisfaction, and efficiency. This non-parametric test is perfect for survey data since it analyzes relationships between nominal

and ordinal variables without assuming a normal distribution. Data were analyze using descriptive statistics (frequencies, percentages, mean and standard deviation). The finding revealed that majority of the respondents believed that digital tools were used for administrative activities by administrative staff in Borno State University, Maiduguri Borno State, Nigeria. The finding further revealed that majority of the respondents believed that used of digital tools significantly impacted on personnel job performance in Borno State University, Maiduguri Borno State, Nigeria. Based on the findings of the study, the researchers conclude that majority of the personnel believed that digital tools were used for administrative activities by administrative staff. The researchers further conclude that used of digital tools for administrative processes has a significant impact on personnel job performance in the Department of Education, Borno State University, Borno State, Nigeria. Since conflict resolution strategy, delegations' strategy, training development strategy were found to significantly related to human recourse job performance in the Department of Education, Faculty of Education, University of Maiduguri, Borno State, Nigeria. Therefore, staff in the department should adopt the strategies in management of personnel

**Keywords:** Digitalized Administrative Procedures, Personnel Performance, Utilization

### 1. Background of the Study

Educational institutions are embracing digital technology more and more in the current global

environment in an effort to increase institutional efficiency, improve service delivery and reduce administrative procedures. The shift from traditional and manual administrative procedures to digitalized systems has become imperative in the face of rising expectations for transparency, accountability and responsiveness in academic institutions. The increasing demand for effective governance and high-quality education in Nigeria has made it imperative for universities to digitally alter their operations, especially in the areas of administrative duties and human resources (HR). This pattern is also seen at Borno State University, which aims to enhance its academic mission by incorporating digital technologies into its administrative structure.

The use of information and communication technology (ICT) tools to automate workflow, manage records, communication, hiring and performance evaluation is a component of digitalization in university administration. This shift involves more than just computer use; it is a systemic change that rethinks the way administrative work is planned, organized and carried out. The Department of Education, as a key unit within the Faculty of Education at the Borno State University, serves as a focal point for this digital transition, particularly as it pertains to managing academic and administrative staff, student services, and institutional reporting.

"Digitalized administrative processes" refers to the way that digital technologies are used and incorporated into the management of institutional operations, either to supplement or replace manual methods. These processes address a wide range of duties, including but not limited to:

1. The use of digital platforms for hiring, onboarding, leave administration, training, payroll, and performance reviews is known as electronic human resource management, or e-HRM. To do this, HR operations are automated and centralized using tools like Human Resource Information Systems (HRIS).
2. Document Management Systems (DMS): These systems make it possible to create, save, retrieve and share documents electronically. Student records, staff files, policy documents and communication archives are all included in academic institutions.
3. Workflow Automation Tools: Software programs that design and automate routine administrative duties such as departmental communication, reporting, and approval workflows. Custom ERP systems, Microsoft

Excel, and Microsoft Power Automate are a few examples.

4. Digital Communication Tools: These include instant messaging applications, intranet portals, email systems and video conferencing equipment that promote effective internal communication and teamwork.

5. Online portals and databases: These are systems that let employees communicate with different departments within the organization, access information, submit reports and update records.

Digitalized administrative processes are characterized by their ability to enhance data accuracy, reduce processing time, ensure timely communication and improve record-keeping. They enable administrative departments to transition from paper-based systems to dynamic, real-time management models, which are crucial in today's knowledge-based economy.

The integration of digital administrative systems has a profound impact on the performance of human resource personnel in academic institutions. At its core, HR job performance is measured through effectiveness, efficiency, responsiveness and innovation in executing tasks such as recruitment, training, employee relations and performance management. The digitalization of administrative functions streamlines these HR activities, reducing the time and effort required for routine tasks and allowing HR staff to focus on deliberate actions that add value to the institution.

According to Marler and Parry (2016), digital HR tools enable organizations to improve service delivery, enhance employee experience and support data-driven decision-making. Furthermore, Bondarouk and Ruël (2009) stress that by automating repetitive tasks and strengthening information accuracy, e-administrative systems enhance the alignment between HR strategies and organizational objectives. In the context of Nigerian universities, Ojo and Akinbode (2019) observed that digital administrative processes enhance accountability, promote efficiency and reduce human errors, thereby improving overall job performance of HR in the Department.

Borno State University's decision to investigate how digitalized administrative procedures affect human resource job performance is based on several key observations regarding the institution's ongoing digital transformation and its operational difficulties. The researchers observed that, firstly, while the university has

recently adopted some digital tools (such as HR software, online registration systems, and digital record-keeping), there appears to be uneven implementation across departments, leading to disparities in efficiency. Secondly, insufficient training, resistance to change, and system outages are common complaints from administrative staff, which prevent them from making the most of these digital tools. Thirdly, manual procedures continue to be used in many units despite investments in digital infrastructure, resulting in a dual-system load that could diminish worker productivity. Additionally, there are concerns about whether the digitalisation efforts have actually translated into measurable improvements in job performance, such as faster service delivery, reduced errors, or enhanced staff satisfaction. In conclusion, the university's distinct location in an area that occasionally faces infrastructure issues such as power outages and internet access necessitates examining how these elements influence the connection between HR performance and digitalization. This research aims to systematically evaluate these observed gaps to provide data-driven evidence and recommendations for optimizing digital administrative processes in the institution.

In the digital era, the transformation of administrative processes through technology has emerged as a critical factor for improving organizational efficiency, transparency and strategic agility. In higher education, particularly in public institutions in developing countries such as Nigeria, the integration of digital technologies in administrative functions is expected to address long-standing inefficiencies related to paperwork, delays and ineffective service delivery. However, despite ongoing efforts to digitalize administrative operations in universities, including the Department of Education, Faculty of Education, University of Maiduguri, there remains a substantial disconnect between digital adoption and actual improvements in personnel job performance.

Moreover, there is a notable scarcity of empirical research examining how digitalized administrative processes specifically affect HR job performance within Nigerian universities. While studies such as Marler and Parry (2016) in global contexts and Bondarouk and Ruël (2009) in European settings have established that e-HRM systems can improve performance through automation and data-driven decision-making, local studies that examine this relationship within the context of Nigerian higher education remain limited. This gap in the

literature makes it difficult for university administrators and policymakers to make informed decisions on how to optimize digital processes for enhanced HR outcomes.

The researchers observed that, despite the significance and empirical evidence on the roles and efficiency of ICT tools in administrative activities such as staff records, payroll and communication, the personnel performance, especially administrative staff, tends to be low. The low performance may be a result of a lack of technical knowledge to use the tools effectively and efficiently. In the Department of Education, Faculty of Education, Borno State University, Anecdotal evidence also revealed that, despite the presence of digital platforms for staff records, payroll, and communication, personnel performance challenges persist. These challenges include delays in staff appraisal processes, inefficiencies in managing leave and promotions and poor access to performance data. These problems raise serious concerns regarding the extent to which digital systems have been successfully institutionalized and whether they are translating into verifiable gains in HR job performance. As a result, this study examined the impact of digitalized administrative processes on human resource job performance at Borno State University's Department of Education.

### 1.1 Objectives of the study

The objectives of this study were to determine:

- The extent of utilization of these digital administrative tools by administrative personnel in Borno State University.
- Impact of digitalized administrative processes on personnel job performance at Borno State University.

### 1.2 Research Questions

To guide this study, two research questions were raised:

- What is the extent of utilization of digital tools by administrative personnel in the Department of Education, Borno State University, Borno State?
- What is the impact of digitalized administrative processes on personnel job performance in the Department of Education, Borno State University, Borno State?

## 2. Literature Review

Bwalya (2012) investigated "The Impact of Digital Resources on Administrative Efficiency

in Zambia's Public Sector." Using a mixed-methods approach, the study included 180 government employees and 30 IT professionals chosen through stratified and purposive sampling. Surveys and focus group talks were utilized as research tools. The findings showed that digital solutions considerably decreased bureaucratic delays, but they encountered challenges such as sporadic internet connectivity and hefty maintenance expenses. The study argued for additional investment in ICT infrastructure to promote digital transformation.

Lau and Pan (2016) studied "Digitalization in Public Administration: A Comparative Analysis of Singapore and Hong Kong." The comparative study employed a qualitative design, reviewing policy texts and conducting interviews with 40 senior administrators from both regions (purposive sampling). The findings revealed that Singapore had higher digital resource usage due to strong government commitment and citizen participation, whereas Hong Kong had slower adoption due to fragmented policies. The study underscored the role of leadership and integrated strategies in successful digital administrative processes.

Adegbuyi, Akinyele and Akinyele (2020) conducted a study titled "Digital Transformation and Employee Performance: Evidence from Nigerian Public Sector Organizations." The study, conducted in Nigeria, used a quantitative research design and surveyed 320 HR personnel and administrative staff from several government agencies using stratified random sampling. Structured questionnaires were used to obtain information about digital tool use and job performance measures. The study found that digitalizing administrative activities improved efficiency, reduced paperwork, and increased staff productivity. However, obstacles to peak performance were a refusal to change and insufficient training. The study advocated ongoing training programs to maximise the benefits of digital transformation in HR operations (Adegbuyi et al., 2020).

Khan and Khan (2019) investigated the relationship between digital HRM practices and job performance in their study, "Impact of Digitalized HR Processes on Employee Performance: A Study of Pakistani Banking Sector." The researchers used a mixed-methods strategy to collect data from 150 Pakistani bank employees using purposive sampling, which included surveys and in-depth interviews. Performance appraisals and Likert-scale

questionnaires were used as study instruments. The results showed that digitalized HR operations, such as e-recruitment and automated payroll systems, improved employee performance by decreasing administrative burdens and increasing accuracy. However, the study also found that employees with low digital literacy experienced stress, suggesting the need for better onboarding and support systems (Khan & Khan, 2019).

Mueller and Renken (2017) investigated "The Effects of Digital Administrative Tools on HR Job Performance in German SMEs." The study, conducted in Germany, adopted a qualitative case study design, interviewing 25 HR professionals from small and medium-sized enterprises (SMEs) selected through snowball sampling. Semi-structured interviews and workplace observations were used as research instruments. The findings revealed that digital solutions such as HR information systems (HRIS) expedited recruitment, performance tracking, and compliance management, resulting in increased job satisfaction and productivity. However, the study found that an overreliance on digital technology can limit interpersonal contacts, lowering staff morale. The researchers emphasized the importance of balancing digital efficiency with human-centric HR practices (Mueller & Renken, 2017).

Obeidat, Tarhini and Aqqad (2018) examined "The Impact of Digital HRM on Employee Performance: Evidence from Jordanian Telecommunication Companies." The study used a quantitative cross-sectional approach and surveyed 400 employees from Jordan's telecom sector using random sampling. Structured questionnaires assessed digital HRM adoption, job performance, and employee engagement. The results showed that digitalized administrative operations, such as e-learning platforms and performance management systems, improved work performance by allowing for speedier decision-making and skill development. Notably, the study discovered that younger employees adapted faster to digital tools, whereas older employees required specific training interventions (Obeidat et al., 2018).

Yoo and Lee (2021) investigated "Digital Transformation in HR and Its Impact on Employee Performance: A Comparative Analysis of South Korean Public and Private Sectors." The research adopted a comparative mixed-methods methodology, assessing survey responses from 500 employees (stratified sampling) and conducting focus group talks

with 30 HR managers in South Korea. The instruments included performance metrics, digital competency assessments, and open-ended interviews. Findings revealed that digital HR tools (e.g., AI-driven analytics and cloud-based systems) improved performance metrics in both sectors but were more effective in private organizations due to greater flexibility and innovation culture. The study underscored the role of organizational culture in maximizing the positive impacts of digitalization on HR performance (Yoo & Lee, 2021).

**3. Methodology**

In order to investigate how digitalized administrative procedures affect human resource job performance at Kashim Ibrahim University in Borno State, this study uses a quantitative survey research approach. The quantitative approach is justified because it enables statistical generalizability to the 80 administrative and human resources staff members of the university by collecting numerical data from a large sample (50

respondents) and allowing for objective measurement of the relationships between digitalization and job performance. Stratified random sampling minimizes bias by guaranteeing proportionate representation across several administrative units. Lack of instrument dependability. A structured questionnaire comprising three sections serves as the research tool: Section A (Demographic Information) collects age, gender, and Department; Section B (Level of Digital Resource Utilization) evaluates the use of tools such as e-filing and HR software; and Section C (Impact and Effects) measures changes in workload, job satisfaction, and efficiency. This non-parametric test is perfect for survey data since it analyzes relationships between nominal and ordinal variables without assuming a normal distribution. Data were analyze using descriptive statistics (frequencies, percentages, mean and standard deviation) to provide a summary of trends and guarantee a thorough assessment of how digital transformation affects HR performance in academic settings.

**4. Data Analysis and Results**

Research Question One: What is the extent of utilization of digital tools for administrative process by administrative personnel in Borno State University?

**Table 1:** Descriptive Analysis of extent of utilization of digital tools for administrative process by administrative personnel in Borno State University

Items	Agree (Freq)	Agree%	Disagree (Freq)	Disagree %	Mean	SD
I use Digital tool for Human Resources tasks such as recruitment	48	96%	02	04%	3.5600	.64397
The Human Resource Department utilizes a centralized digital system for managing employee	45	90%	05	10%	3.3400	.77222
Digital communication platforms are effectively used for internal Human Resources Communications	47	94%	03	06%	3.3400	.59281
Workflow automation tools have streamlined Human Resources processes in our Department	41	82%	09	18%	3.2000	.83299
I have received adequate training to effectively use digital Human Resources tools	46	92%	04	8%	3.2400	.65652
Average Score	227	90%	23	10%	3.336	.6997

Table 1 on the research question one say that, What is the extent of utilization of digital tools for administrative activities by administrative personnel in Borno State University? The findings revealed that 90% of the respondents are of the opinion that, they used digital tools for administrative activities in Borno State University, Maiduguri Borno State, Nigeria. While 10% of the respondents disagreed with the fact that, they used digital tools for administrative activities in Borno State University, Maiduguri Borno State, Nigeria. This implies that, majority of the respondents believed that digital tools were used for administrative activities by administrative staff in Borno State University, Maiduguri Borno State, Nigeria.

**Research Question Two:** What is the impact of digitalized administrative processes on personnel job performance in the Department of Education, Borno State University, Borno State?

**Table 2:** Descriptive Analysis of impact of digitalized administrative processes on personnel job performance in the Department of Education, Borno State University, Borno State

Items	Agree (Freq)	Agree (%)	Disagree (Freq)	Disagree (%)	Mean	SD
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Digitalization has improved the efficiency of Human Resource operations	48	96%	02	04%	3.6400	.63116
The accuracy of Human Resources data has increased due to digital processes	48	96%	02	4%	3.5600	.67491
Digital tools have reduced the time required to complete human resource tasks	43	86%	07	14%	3.3600	.82709
Employee satisfaction with Human Resource Services has improved with digitalization	44	88%	06	12%	3.3400	.79821
Digital processes have enhanced decision-making in Human resource management	45	88%	06	12%	3.3000	.83910
Average Score	228	91%	23	09%	3.4400	.75409

Table 2 on the research question two say that: What is the impact of digitalized administrative processes on personnel job performance in the Department of Education, Borno State University, Borno State? The findings revealed that 91% of the respondents are of the opinion that, they used of digital tools for administrative activities significantly impacted on personnel job performance in the Department of Education, Borno State University, Borno State. While 9% of the respondents disagreed with the fact that, they used digital tools for administrative activities significantly impacted on personnel job performance in Borno State University, Maiduguri Borno State, Nigeria. This implies that, majority of the respondents believed that used of digital tools significantly impacted on personnel job performance in Borno State University, Maiduguri Borno State, Nigeria.

**5. Discussion**

The finding in respect to research question one which states, what is the extent of utilization of digital tools for administrative process by administrative personnel in the Department of Education, Borno State University, Borno State? The findings of the study revealed that majority of the respondents believed that digital tools were used for administrative activities by administrative staff in the Department of Education, Borno State University, Borno State, Nigeria. The findings of the confirm the finding of Bwalya (2012), Lau and Pan (2016), Adegbuyi and Akinyele and Akinyele (2020) which revealed that majority of the respondents uses digital tools for organizational activities.

The finding in relations to research question two which states that, what is the impact of digitalized administrative processes on personnel job performance in the Department of Education, Borno State University, Borno State? The findings of the study revealed that used of digital tools for administrative processes has a significant impact on personnel job performance in the Department of Education, Borno State University, Borno State, Nigeria. The findings were inconsonance with the

findings of Khan and Khan (2019), Mueller and Renken (2017), Obeidat, Tarhini and Aqqad (2018) and Yoo and Lee (2021) which revealed that majority of the respondents were of the opinion that digitalized administrative processes has a significant influence on personnel job performance within an organization.

**6. Conclusion**

Based on the findings of the study, the researchers conclude that majority of the personnel believed that digital tools were used for administrative activities by administrative staff. The researchers further conclude that used of digital tools for administrative processes has a significant impact on personnel job performance in the Department of Education, Borno State University, Borno State, Nigeria.

**7. Recommendations**

Based on the finding of the study, the researchers recommend the following:

- Since majority of the personnel uses digital tools for administrative processes and it also shown a significant impact on their job performance, the Management or state government should provide the digital tools for administrative activities.

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