

Digital Time Management Competencies and Job Performance of University Secretaries in Rivers State

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ARTICLE INFO

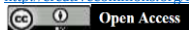
Keywords:

Digital Time Management,
Task Prioritization,
Task Management Platforms,
Communication,
efficiency Job Performance.

Vol.01, No.03, 2026

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ABSTRACT

This study examined the relationship between digital time management competencies and job performance of university secretaries in Rivers State, Nigeria. Three objectives, three research questions, and three corresponding null hypotheses guided the investigation. The study adopted a correlational research design with a census population of 241 secretaries drawn from three universities in Rivers State. Two sets of self-structured instrument captioned Secretaries Digital Time Management Competencies Questionnaire (SDTMCQ) and the Universities Secretaries Job Performance Questionnaire (USJPQ) were used for data collection. The instruments were validated by two subject-matter experts and yielded reliability coefficients of 0.86 and 0.81 respectively via Pearson Product Moment Correlation. Out of the 241 copies of instrument distributed, 227 were retrieved and used for analysis. Data were analysed using Pearson Product Moment Correlation (PPMC) at 0.05 level of significance. Findings revealed significant, high, and positive relationships between task prioritization and tracking ($r = 0.83$), task management platforms ($r = 0.81$), and email and communication efficiency ($r = 0.86$) with job performance of university secretaries. All null hypotheses were rejected. The study concluded that digital time management competencies significantly enhance job performance of secretaries. Recommendations include adoption of standardised digital tools, institution-wide task management platforms, and digital communication protocols across university administrative units.

Introduction

Globally, human capital remains an important resource and one that plays essential roles in the pursuit and realization of goals, survival and growth of organizations. The performance of the people forms a critical criterion for organizational outcomes, success and serves as a key factor in determining the achievement of an organization's goals. As a result, owners and managers of organizations and businesses are looking out for employees who will be able to do the job well within a specific time bound to achieve organizational targets. This is because time is one of the most critical resources for organizational success, particularly in knowledge-driven institutions such as universities. Effective utilization of time has long been linked to employee productivity, efficiency, and service delivery (Aeon & Aguinis, 2021).

Today, the modern world of education has shifted from manual ways of secretarial works to a faster system enabled by information and communication technologies. Modern office digitization has the potential to transform the entire task performed in the educational environment. Tuomi (2018) stated that modern office digitization has dramatically impacted the secretarial tasks performed by secretaries. Kuteyi and Fasoranti, (2020) explained that the introduction of sophisticated office technology equipment like computers, spreadsheet and other information technology resources coupled with new management techniques have completely changed old work habits in the office and triggered off a new business orientation thus making moribund the older methods. In the digital era of today, the management of time has increasingly shifted from manual scheduling and record-keeping to digital platforms that enable faster communication, automated reminders, electronic record management, and collaborative workspaces.

These developments has given rise to the concept of *digital time-management competence* which is the ability to effectively use digital tools and platforms to plan, organize, prioritize, and accomplish

tasks within stipulated deadlines (Galindo-Domínguez et al., 2021). In the contemporary work environment, employers are in search for secretaries who possessed knowledge, skills and competencies that would enhance better job performance. As such the development of high level of efficacy in ICT will affect the success of the secretary's job performance in the ever-increasing information-based environment. Office digitization has drastically changed the office functions as jobs are now done in a new way to enhance both administrative and clerical job performance of secretaries.

The performance of human capital remains a decisive factor in organizational success, particularly in knowledge-driven institutions such as universities. Effective management of time has long been linked to employee productivity, efficiency, and quality service delivery (Aeon & Aguinis, 2021). In the digital age, the concept of time management has expanded beyond paper-based scheduling to encompass competencies in deploying digital tools and platforms for planning, prioritizing, communicating, and tracking tasks.

Modern office digitization has profoundly transformed secretarial functions globally (Tuomi, 2018). University secretaries, as core administrative personnel, are responsible for coordinating correspondence, scheduling meetings, managing records, tracking deadlines, and serving as the frontline administrative support to academic units. As these processes have become increasingly digitized, secretaries' performance now hinges on their digital time management competencies — the ability to effectively utilize digital tools to plan, organize, prioritize, and accomplish tasks within stipulated timeframes (Galindo-Domínguez et al., 2021).

Despite the demonstrated benefits of digital technologies in administrative practice, university secretaries in Rivers State have been observed to face challenges in meeting scheduled tasks, managing institutional correspondence promptly, and maintaining efficient communication systems (Akpomi & Nwaeke, 2023). Observations indicate recurring cases of document misplacement, delayed communication, duplication of events, and poor adherence to administrative timelines — all symptomatic of inadequate digital time management competencies (Ukata & Udeh, 2022). Whereas studies have explored office automation and secretarial productivity (Wogboroma & Nwaeke, 2025; Onoja, 2020), digital communication skills (Otamiri & Gonweee, 2022), and technological innovation (Adenekan & Jimoh, 2021), a critical empirical gap exists regarding how specific digital time management competencies namely task prioritization, task management platforms, and communication efficiency relate to secretaries' job performance in Nigerian universities. This study addresses that gap.

Statement of the Problem

1. The Benefits task prioritization is on essential elements of effective task management. It allows you to focus on the most important and useful tasks first.
 - i. The benefit of task management platform, with greater visibility on group projects, its becoming much easier to manage deadlines and ensure that important projects are delivered on time.
 - ii. The benefits communicating efficiency its building trust, strengthening understanding and reducing conflict for information to be truly shared and to enable strong feedback, there must be an equal exchange of thoughts, feelings and expectations.
2. An assumed problem refers to a premise, condition or hypothesis that the researcher takes for granted as true without verifying it with empirical data, current statistics, or peer reviewed literature.

Dangers of Using Assumed Problems

- Blas and Speculation: Basing your research on what you merely believe introduces personal bias.
 - Meaningless Results: A study built on unfounded assertions is viewed as speculation, which severely damages its academic credibility.
 - Irrelevance: if the assumed issue does not actually exist or affect the target population, your research will fail to provide meaningful solutions or contributions to the.
3. A problem statement clearly defines an issue and its negative impact. To explain a possible solution, you must identify the root causes, state the desired outcome and propose how to bridge that gap.

The possible solution into actionable parts:

- Identify the root Cause: pinpoint why the problem is happening instead of just treating its symptoms.
- Define the Goal: Describe what success of the ideal scenario looks like.
- Propose a Method: outline a strategic, step –by-step plan to fix the core issue.
- Highlight Benefits: Explain exactly how this solution will eliminate the negative impacts and save time, money or effort.

University secretaries in Rivers State are central to institutional workflow, coordinating calendars, managing correspondence, scheduling meetings, and tracking deadlines. As these functions have become increasingly digitized, secretarial performance now hinges on digital time management competencies — the ability to plan, prioritize, and execute tasks using digital office tools. Okiridu and Nwoko (2021) assert that digital literacy gives higher education the affordances and limitations of the internet and also how to strategically surf the internet.

Despite this, observable deficiencies persist among university secretaries in Rivers State, including failure to meet scheduled tasks, loss of documents, duplication of events, and delayed information delivery — with correspondence sometimes reaching staff two or more days after stipulated deadlines. These lapses reflect continued reliance on manual systems and inadequate utilization of available digital tools. Ukata and Udeh (2022) noted that many secretaries have yet to effectively deploy digitalization tools, thereby undermining their own performance outcomes. It is against this backdrop that this study examines the relationship between digital time management competencies and job performance of university secretaries in Rivers State.

Purpose of the Study

The purpose of the study is to determine how digital time management competencies relate to job performance of university secretaries in Rivers State. Specifically, the study seeks to find out

The study specifically sought to:

1. Determine how task prioritization competencies relate to job performance of university secretaries in Rivers State.
2. Determine how task management platform competencies relate to job performance of university secretaries in Rivers State.
3. Ascertain how communication efficiency competencies relate to job performance of university secretaries in Rivers State.

Research Questions

The following research questions guided the study:

1. How does task prioritization competencies relate to job performance of university secretaries in Rivers State?
2. How does task management platform competencies relate to job performance of university secretaries in Rivers State?
3. How does communication efficiency competency relate to job performance of university secretaries in Rivers State?

Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance:

1. There is no significant relationship between task prioritization competencies and job performance of university secretaries in Rivers State.
2. There is no significant relationship between task management platform competencies and job performance of university secretaries in Rivers State.
3. There is no significant relationship between communication efficiency competencies and job performance of university secretaries in Rivers State.

Methodology

The study adopted a correlational research design, which is appropriate for examining relationships between two or more variables without manipulating them (Nwankwo, 2016). This design was suitable because the study sought to determine the nature and direction of the relationship between digital time management competencies and job performance of university secretaries. The study was conducted in universities in Rivers State, Nigeria, namely; Rivers State University (RSU), Ignatius Ajuru University of Education (IAUE), and University of Port Harcourt (UNIPORT). These institutions

collectively represent the full population of university secretarial staff in the State. The target population comprised all 241 secretaries across the three universities in Rivers State as at the time of the study (Source: Institutions Payroll Offices, 2025). Due to the manageable size of the population, no sampling was applied; hence the study employed a total census approach. Two sets of self-structured instruments were employed. Secretaries Digital Time Management Competencies Questionnaire (SDTMCQ) and Universities Secretaries Job Performance Questionnaire (USJPQ). Both instruments were structured on a four-point rating scale: Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1). Content and face validity of the instruments were established by two experts — one in Information and Communication Technology and one in Office and Information Management — both from Ignatius Ajuru University of Education, Port Harcourt. Reliability was established through the test-retest method administered to 17 secretaries outside the study population at two-week intervals. Pearson Product Moment Correlation yielded reliability coefficients of 0.86 (SDTMCQ) and 0.81 (USJPQ), confirming adequate internal consistency. Instruments were administered directly with the assistance of two assistants. Out of the 241 copies distributed, 227 (94.2%) were successfully retrieved and used for analysis. Data were analysed using Pearson Product Moment Correlation Coefficient (PPMC) at 0.05 level of significance with a critical r-value of 0.195 at 225 degrees of freedom.

Results and Discussions

Research Question 1

How does task prioritization competencies relate to job performance of university secretaries in Rivers State?

Table 1: Relationship Between Task Prioritization Competencies and Job Performance of University Secretaries

Variable	$\Sigma X/\Sigma Y$	$\Sigma X^2/\Sigma Y^2$	N	ΣXY	Rcal	rcrit	Remarks
Task Prioritization (X)	711.30	1325.14	227	2219.26	0.83	0.195	High Positive
Job Performance (Y)	2133.07	2126.03					

*Significant at 0.05 level (2-tailed)

The result in Table 1 reveals a correlation coefficient of $r = 0.83$, which is positive and greater than the critical value of 0.195 at 225 degrees of freedom ($p < 0.05$). This indicates a high and positive relationship between task prioritization and tracking and job performance of university secretaries in Rivers State.

Research Question 2

How does task management platform competencies relate to job performance of university secretaries in Rivers State?

Table 2: Relationship Between Task Management Platforms and Job Performance of University Secretaries

Variable	$\Sigma X/\Sigma Y$	$\Sigma X^2/\Sigma Y^2$	N	ΣXY	r cal	rcrit	Remarks
Task Management Platforms (X)	804.64	2140.06	227	1866.10	0.81	0.195	High Positive
Job Performance (Y)	2133.07	2126.03					

*Significant at 0.05 level (2-tailed)

Table 2 presents a correlation coefficient of $r = 0.81$, exceeding the critical r-value of 0.195 at 225 degrees of freedom ($p < 0.05$). This demonstrates a high and positive relationship between task management platform competencies and job performance of university secretaries in Rivers State.

Research Question 3

How does communication efficiency competency relate to job performance of university secretaries in Rivers State?

Table 3: Relationship Between Communication Efficiency and Job Performance of University Secretaries

Variable	$\Sigma X/\Sigma Y$	$\Sigma X^2/\Sigma Y^2$	N	ΣXY	r _{cal}	r _{crit}	Remarks
Email & Communication Efficiency (X)	867.33	2063.12	227	1006.27	0.86	0.195	High Positive
Job Performance (Y)	2133.07	2126.03					

*Significant at 0.05 level (2-tailed)

Table 3 reveals a correlation coefficient of $r = 0.86$, which is high, positive, and statistically significant ($p < 0.05$), surpassing the critical r-value of 0.195 at 225 degrees of freedom. This indicates a high positive relationship between email and communication efficiency competencies and job performance of university secretaries in Rivers State.

Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance:

1. There is no significant relationship between task prioritization competencies and job performance of university secretaries in Rivers State.

Table 4: Pearson Correlation Summary Analysis between Task Prioritization and Job Performance of University Secretaries in Rivers State

Variable	N	$\Sigma X \Sigma Y$	$\Sigma X^2 \Sigma Y^2$	$\Sigma X \Sigma Y$	df	α	r _{cal}	r _{crit}	t _{cal}	t _{crit}	Remarks
Task Prioritization (X)	227	763.26	1970.14								
				2219.26	225	0.05	0.81	0.195	37.24	1.96	Sig. Reject H_0
Secretaries Job Performance (Y)	227	1164.18	2339.60								

Source: Researcher's Field Result, 2025

Table 4 shows Pearson Correlation Summary between task prioritization and job performance of university secretaries in Rivers State. Result from Table 5 revealed that the sum and sum of squares for task prioritization and tracking are 711.30 and 1325.14 while that of universities secretaries job performance are 2133.07 and 2126.03 respectively. The sum of product of scores on the two variables (task prioritization and universities secretaries' job performance) is 2219.26. The correlation coefficient is 0.83 which is greater than the critical value of r (0.195) at 225 degrees of freedom under 0.05 level of significant. Therefore, the null hypothesis of no significant relationship between task prioritization and job performance of university secretaries in Rivers State is rejected. This implies that there is a positive relationship between task prioritization and tracking and job performance of university secretaries in Rivers State.

2. There is no significant relationship between task management platform competencies and job performance of university secretaries in Rivers State.

Table 5: Pearson Correlation Summary Analysis between Task Management Platforms and Job Performance of University Secretaries in Rivers State

Variable	N	$\sum X \sum Y$	$\sum X^2 \sum Y^2$	$\sum X \sum Y$	df	α	r_{cal}	r_{crit}	t_{cal}	t_{crit}	Remark
Task Management Platforms (X)	227	804.64	2140.06								
				1866.10	225	0.05	0.81	0.195	23.05	1.96	Sig. Reject H_0
Universities Secretaries Job Performance (Y)	227	2133.07	2126.03								

Source: Researcher's Field Result, 2025

Table 5 shows Pearson Correlation Summary between task management platforms and job performance of university secretaries in Rivers State. Result from Table 5 revealed that the sum and sum of squares for task management platforms are 804.64 and 2140.06 while that of universities secretaries job performance are 2133.07 and 2126.03 respectively. The sum of product of scores on the two variables (task management platforms and universities secretaries' job performance) is 1866.10. The correlation coefficient is 0.81 which is greater than the critical value of r (0.195) at 225 degrees of freedom under 0.05 level of significant. Therefore, the null hypothesis of no significant relationship between task management platforms and job performance of university secretaries in Rivers State is rejected. This implies that there is a positive relationship between task management platforms and job performance of university secretaries in Rivers State.

3. There is no significant relationship between communication efficiency competencies and job performance of university secretaries in Rivers State.

Table 6: Pearson Correlation Summary Analysis between Communication Efficiency and Job Performance of University Secretaries in Rivers State

Variable	N	$\sum X \sum Y$	$\sum X^2 \sum Y^2$	$\sum X \sum Y$	df	α	r_{cal}	r_{crit}	t_{cal}	t_{crit}	Remark
Communication Efficiency (X)	227	867.33	2063.12								
				1006.27	225	0.05	0.86	0.195	31.23	1.96	Sig. Reject H_0
Universities Secretaries Job Performance (Y)	227	2133.07	2126.03								

Source: Researcher's Field Result, 2025

Table 6 shows Pearson Correlation Summary between communication efficiency and job performance of university secretaries in Rivers State. Result from Table 6 revealed that the sum and sum of squares for communication efficiency are 867.33 and 2063.12 while that of universities secretaries job performance are 2133.07 and 2126.03 respectively. The sum of product of scores on the two variables (communication efficiency and universities secretaries' job performance) is 1006.27. The correlation coefficient is 0.86 which is greater than the critical value of r (0.195) at 225 degrees of freedom under 0.05 level of significant. Therefore, the null hypothesis of no significant relationship between communication efficiency and job performance of university secretaries in Rivers State is rejected. This implies that there is a positive relationship between communication efficiency and job performance of university secretaries in Rivers State.

Discussion of Findings

The finding that task prioritization and tracking competencies exhibit a high positive relationship with job performance ($r = 0.83$) is consistent with the theoretical proposition of Goal-Setting Theory (Locke & Latham, 1990), which affirms that specific and structured task goals with monitoring

mechanisms lead to superior performance. This result corroborates Oakes, Botta and Bahill (2023), who found that systematic task prioritization — ranking tasks by importance and urgency — significantly improves resource allocation and productivity. Similarly, Claessens et al. (2007) confirmed that structured prioritization reduces workplace stress and enhances task completion rates. In the university secretarial context, the ability to digitally organize daily task lists, distinguish urgent from non-urgent demands, and systematically monitor task progress directly translates into timely service delivery and reduced administrative bottlenecks.

The high positive correlation ($r = 0.81$) between task management platform competencies and secretarial job performance aligns with Blandford and Green (2021), who underscored digital calendars and scheduling tools as critical enablers of deadline management, event scheduling, and cross-team coordination. The result is also consistent with Jadeja and Modi (2012) and Microsoft International (2021), who documented productivity gains from cloud-based platform adoption in organizational settings. In the context of university administration, task management platforms facilitate multi-supervisor task tracking, real-time progress updates, and automated deadline reminders — all of which directly reduce task duplication, information loss, and administrative delays, thereby improving performance outcomes for secretaries.

The strongest correlation in this study ($r = 0.86$) was recorded between email and communication efficiency and secretarial job performance. This finding aligns with Olson and Lucas (2015), who asserted that effective email usage enables rapid, cost-efficient, and asynchronous information exchange, directly enhancing work performance. It also corroborates Otamiri and Gonwee (2022), who found digital communication skills to have a significant positive relationship with administrative performance in Rivers State tertiary institutions. The result affirms that proficient email use enables secretaries to reduce face-to-face communication time, maintain accurate correspondence records, simultaneously disseminate information across departments, and execute administrative tasks with greater accuracy and timeliness. This is particularly significant in university environments where timely information delivery to academic staff, students, and institutional management is central to operational effectiveness.

Conclusion

This study established that digital time management competencies specifically task prioritization and tracking, task management platform usage, and email and communication efficiency significantly and positively relate to the job performance of university secretaries in Rivers State. The statistically significant correlations obtained for all three variables confirm that secretaries who demonstrate higher proficiency in digital time management tools deliver measurably superior performance outcomes in terms of task quantity, timeliness, accuracy, and interdepartmental coordination. These findings validate the relevance of the Technology Acceptance Model and Goal-Setting Theory in explaining how digital competence acquisition enhances administrative performance in Nigerian university settings.

Recommendations

Based on the findings of this study, the following recommendations are advanced:

1. Universities in Rivers State should adopt standardized digital task prioritization tools — including digital planners, priority-based task schedulers, and deadline management systems — as mandatory administrative instruments across all secretarial units. Institutional training in the operation of these tools should be formalized through periodic professional development programmes.
2. University administrations should deploy institution-wide task management platforms such as centralized workflow systems, collaborative dashboards, and shared project management applications to facilitate task allocation, deadline tracking, multi-supervisor coordination, and progress monitoring. This will institutionalize the performance benefits associated with platform-based task management competencies.

Universities should formulate and enforce a digital communication optimization policy mandating the use of official institutional email systems for all administrative correspondence. The policy should include email response-time standards, communication workflow protocols, professional email guidelines, and training programmes to enhance secretaries' proficiency in digital communication tools, thereby sustaining performance gains in information dissemination and coordination.

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