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Digital Workflows Systems and Administrative Efficiency of Non-Academic Staff in the University of Calabar, Nigeria

Ikaka, Beconson Fredrick

Department of Public Administration, University of Calabar, Calabar, Nigeria beconsonfredrick@gmail.com +2348147022602

Echadu, Melford Ochang

Department of Public Administration, University of Calabar, Calabar, Nigeria melfordechadu@yahoo.com +2348163571290

Igbang, Vincent Obok

Department of Business Administration, University of Cross River State, Nigeria igbangvincent@gmail.com +2348025752866

Etta, Queen Marshal

Department of Applied Chemistry, University of Calabar, Calabar, Nigeria ettaqueen4@gmail.com +2347080992142

Abstract

This study examined the impact of digital workflows system on administrative efficiency on nonacademic staff in the University of Calabar. Survey design was adopted and the population comprised of all non-academic staff of the Institution. Two hypotheses were formulated and a 5-point Likert questionnaire was administered to 288 senior Registry staff of the Institution who were selected using the Taro Yameni sample size determination formula. Descriptive data were analyzed with frequency count and percentage while the hypotheses were tested with Pearson correlation coefficient (r) at 0.05 level of significance. The results showed the adoption of software tools has significantly enhanced the speed of processing student transcripts, results and school fees in the institution. Also, the result showed the cloud storge systems adopted in the University of Calabar has been able to address gross administrative inefficiencies in the area of record management. It was also revealed that thought the adoption of digital workflows has been able to revolutionize administrative services in core areas, the university is still experiencing challenges such as lack of training to enhance the digital skills of staff, inadequate infrastructure and lack of support team to address technical issues in times of downturn. Key recommendations include establishing a monitoring system, creating a dedicated IT support team, and ensuring system reliability through proper maintenance.

Keywords: Digital workflows systems, Technoogies, Administrative efficiency, service delivery

1.0 Introduction

As the wave of globalization blows across the globe, the advancements in information and communication Technology and digital workflows systems have ushered in new opportunities for the management of educational institutions. The application of technology in educational management is expected to promote the development of a more transparent, accountable, and adaptable system that meets the changing demands of society (McCarthy et al., 2023). By leveraging digital workflows systems, educational institutions can establish dynamic platforms that enhance administrative efficiency, and improved service delivery among stakeholders. This innovative approach seeks to build an educational environment that responds effectively to the evolving needs

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of a fast-paced world while encouraging creativity and continuous learning, thereby promoting the overall progress of the education sector (Kurniawan et al., 2024).

Universities play a crucial role in advancing knowledge, skills, and innovation, but their ability to deliver these services efficiently is dependent on effective administrative structures. Administrative tasks such as admissions, fee processing, transcript issuance, and student clearance require timely and accurate handling to ensure seamless academic experiences for students (Ogunode & Zalakro, 2023). Achieving the primary goals for which these institutions are established requires the effective use of human, material, and technological resources (Abid et al., 2022). When public organizations provide services effectively and efficiently, they partially fulfill their objectives by ensuring user satisfaction (Victor & Steven, 2020). Therefore, in advancing their core mandates of teaching, research, innovation, skill acquisition, and development, tertiary institutions are increasingly focusing on delivering cost-effective and resource-efficient administrative services (Ekere, 2019).

In the current dynamic formation, technology, especially digital tools are acknowledged as inducing changes in the administration of tertiary institutions, and more importantly, effective administration and how stakeholders access institutional facilities and services (Ojo et al., 2024). The widespread adoption of technology is anticipated to act as a catalyst for generating substantial or even transformative benefits (Abubakar, 2023). As digital tools are becoming more integrated into the administrative functions and workflow of tertiary institutions and given the vital role of administrative services in supporting academic activities and the interrelated organs of the institutions, it is essential to examine the extent to which digital innovations utilization contributes to the improvement in their administrative service delivery.

Digital workflow systems involve the automation of routine administrative tasks through the integration of digital tools, enabling faster communication, better data management, and real-time tracking of processes. By minimizing human intervention, these systems have the potential to reduce errors, speed up service delivery, and improve overall administrative performance. In a university setting, effective digital workflows can transform processes such as student registration, clearance, document handling, and correspondence, ensuring faster turnaround times and higher satisfaction levels.

This study focuses on the adoption and utilization of digital workflow systems at the University of Calabar and their role in enhancing administrative efficiency. By assessing the effectiveness of these systems, the research aims to provide insight into their impact on administrative processes, highlight areas requiring improvement, and propose strategies for fostering a stronger digital culture within the institution. Ultimately, the findings will contribute to the growing discourse on digital transformation in higher education and offer scalable recommendations for other similar institutions seeking to enhance their administrative functions through technology.

1.2 Statement of problem

Over time, Nigerian universities have experienced significant administrative inefficiencies, drawing public criticism. Complaints include missing results, delays in fee processing, and challenges with transcript issuance. Students often endure hardships during final clearance, while issues like shared registration numbers and misplaced records persist. Traditional paper-based systems hinder data retrieval, are prone to damage, and cause delays in communication and document handling. Despite the introduction of digital innovations, such as the partnership with Socket Works in 2004 by the University of Calabar to address these inefficiencies, many issues remain unresolved. Persistent delays in mobilizing graduates for NYSC and manual handling of payments and correspondence continue to affect operational efficiency. These lingering problems prompt concerns about the root causes of administrative inefficiencies despite the adoption of ICT solutions.

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1.3 Objectives of the Study

The main objective of the study was to evaluate digital workflow systems and administrative efficiency in the University of Calabar. The specific objectives were to:

- a. To examine the relationship between the adoption of software tools and improved speed of processing transcripts in the University of Calabar.
- b. To examine the extent to which cloud storage system has influenced record management and retrieval efficiency in the University of Calabar.
- c. To identify the perception, barriers and challenges to the successful implementation of digital workflows system in the administrative units of the University of Calabar.

1.4 Research Hypotheses

The following hypotheses guided the study

- a. Adoption of software tools does not improve the speed of processing transcripts in the University of Calabar.
- b. Cloud storage system has not influenced record management in the University of Calabar

2.0 Review of Related Literature

This section explains the key concepts of the study digital workflows system, administrative efficiency and their relationships. It also provides the theoretical framework for the study, which is anchored on technological acceptance model.

2.1 Conceptual Review

2.1.1 Digital Workflows System

Abid et al., (2022) defined Digital technology as electronic tools, systems, devices, and resources that generate, store, or process data in digital formats. Within the context of digital workflow systems, these technologies enable seamless integration and automation of business processes by connecting multiple activities through digital platforms (Ashmarina & Mantulenko, 2021). Digital workflow systems leverage digital devices, software, and applications to manage tasks, facilitate communication, enhance data analysis, and streamline workflows, leading to improved operational efficiency and accuracy (Brynjolfsson & McAfee, 2014). Tools such as personal computers, scanners, cloud-based platforms, database management systems, and telecommunication tools form the backbone of these systems, enabling organizations to organize, retrieve, process, and transmit information rapidly and securely (Newhouse, 2018). The integration of artificial intelligence, big data analytics, cloud computing, and internet technologies further enhances digital workflows by automating repetitive tasks and enabling real-time collaboration (Obukhova et al., 2020). Consequently, digital workflow systems contribute significantly to the transformation of work models, facilitating faster service delivery, improving customer satisfaction, and promoting innovation in business processes (Ashmarina & Mantulenko, 2021).

Digital workflow systems entail the application of technology in organizing, automating, and managing processes through the use of digital tools, software, and systems. These systems integrate hardware, software, and algorithms to streamline tasks, enhance communication, and optimize information processing, thereby improving efficiency and performance in various industries (Suherlan & Okombo, 2023). As technology has evolved, it now includes not only physical devices like computers and electronic equipment but also advanced software and system integration that facilitate automation and real-time data exchange (Rijal & Saranani, 2023). Digital workflows have

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become a driving force for innovation, unlocking new opportunities for productivity and operational improvements across sectors (Wanof, 2023). In an increasingly connected world, these systems play a critical role in transforming how organizations work, communicate, and collaborate in the modern era (Suherlan, 2023).

Adisa and Bamidele (2024) noted that with the introduction of digital workflow systems, administrative knowledge is now converted into digitized formats, creating interconnected digital networks that facilitate seamless access, sharing, and utilization of organizational information (Obukhova et al., 2020). These innovations in digital technology have transformed traditional administrative methods by streamlining processes, reducing redundancies, and accelerating service delivery. As a result, organizations, including higher education institutions, have adopted digital workflows to enhance administrative efficiency, improve decision-making, and ensure timely execution of tasks. Consequently, leveraging digital workflows allows organizations to remain competitive by fostering smarter ways of working and optimizing administrative performance (Edna et al., 2014).

The drastic adoption of digital connectivity and automation and the unprecedented global growth in the emergence and deployment of digital workflow systems have revolutionized organizational activities, business operations, and competitiveness (Sharmin et al., 2017). Achimugu et al. (2017) posit that an important driver of organizational activities and processes that affect the rate and quality of service in most firms is the emerging digital workflow systems adopted. In terms of the usage and deployment of digital tools, as well as, fundamentally, service delivery, there has been a progressive and extraordinary transition in public enterprise policies, procedures, and activities. Numerous empirical findings confirm this, indicating that digital technology enhances the operational and administrative efficacy of public institutions and makes it easier to source and use data processed for decision-making (Obukhova et al., 2020). Issues with service delivery, such as high operating or service costs, subpar service quality, and inconsistent demand for services, may be resolved by digital technology (Haldrup, 2022).

2.1.2 Administrative efficiency

According to Juka (2020), administrative efficiency connotes the ability of an organization to provide services effectively and consistently while maintaining high standards of quality and professionalism. It encompasses a range of activities, from the creation and development to the deployment and management of services, all aimed at satisfying both internal and external stakeholders. For administrative efficiency to be achieved, key elements such as reliability, responsiveness, and empathy must be present, as these contribute to building customer confidence and satisfaction (Parasuraman et al., 2015). Additionally, Obikwelu (2014) emphasizes that administrative efficiency focuses on ensuring total quality management, where the process of service delivery is customer-centered, quality-driven, and aligned with the organization's strategic objectives. As such, administrative efficiency not only ensures the delivery of high-quality services but also requires those responsible for service provision to demonstrate integrity, professionalism, and a deep understanding of both the services and the organization itself (Achimugu et al., 2017).

Administrative efficiency refers to a series of planning, organizing, directing, and controlling processes aimed at optimizing resource utilization within an educational institution (Prastyaningtyas et al., 2023). Its primary objective is to ensure effectiveness and efficiency in institutional operations and service delivery. Administrative efficiency involves strategic decision-making concerning the allocation of human, financial, physical, and informational resources to meet predefined organizational goals (Harahap et al., 2023). It is crucial for administrative leaders, such as university administrators or departmental heads, in steering, motivating, and coordinating the efforts of all

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personnel to create a conducive work environment. Key elements of administrative efficiency include process optimization, staff development, performance evaluation, infrastructure management, technology integration, and proactive engagement with external stakeholders like students and regulatory bodies (Cahyono et al., 2023). Achieving administrative efficiency requires not only effective management but also the capacity to respond to changing conditions, implement innovative practices, and foster a culture of continuous improvement.

Administrative efficiency plays a critical role in enhancing overall service performance by ensuring that services are rendered efficiently and effectively. Service systems, which include the processes and technologies used to deliver services, form the backbone of organizational functionality (Kumar & Pansari, 2016). At the heart of these systems is the engagement of staff, whose active participation is essential for delivering exceptional service experiences and creating value for stakeholders (Homburg et al., 2017). Service delivery is only deemed effective when it is timely, reliable, and user-friendly, leading to customer satisfaction and fostering positive relationships between providers and users. According to Berry et al. (2019), the speed and efficiency of service delivery are crucial for user satisfaction. In today's fast-paced environment, delays can lead to dissatisfaction, erode trust, and increase the risk of attrition (Osei-Assibey, 2019). Conversely, prompt service delivery not only enhances user experience but also builds stronger provider-user relationships (Homburg et al., 2017). Key performance metrics, such as service time, response time, and throughput, help quantify the rate of service delivery and its impact on customer satisfaction (Osei-Assibey, 2019). These elements of administrative service delivery collectively contribute to a more effective and efficient service experience, benefiting both the organization and its stakeholders.

2.3 Theoretical framework

The Technology Acceptance Model (TAM), developed by Davis in 1989, is a widely recognized framework used to explain how individuals adopt and use technology. TAM posits that two key factors: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) influence an individual's intention to adopt a technology, which in turn affects actual usage. Perceived usefulness refers to the extent to which a person believes that using a particular system will enhance their job performance, while perceived ease of use refers to the degree to which a person believes that using the system will be free from effort (Venkatesh & Bala, 2008). These constructs collectively shape the attitude toward technology adoption, influencing whether users fully integrate it into their workflow. TAM has been extensively applied across various sectors, including education, healthcare, and business, to understand and predict user behavior toward new technologies (Legris et al., 2003).

In relation to the topic Technological Acceptance Model provides a relevant theoretical lens to examine the factors influencing the adoption of digital workflow systems by non-academic staff. The successful implementation of digital workflow systems depends on how well non-academic staff perceive the technology as useful in improving their job efficiency, such as reducing delays in fee processing, enhancing record management, and improving communication. If the staff believe that digital systems simplify their tasks and reduce manual effort (PEOU), they are more likely to embrace the system, which in turn will lead to increased administrative efficiency (Olatubosun, et al., 2021). Furthermore, perceived usefulness is crucial in determining whether staff view the digital system as a tool that can enhance service delivery, minimize errors, and save time in administrative operations.

Although TAM places a strong emphasis on individual perceptions, organizational elements like managerial commitment, technical support, and training also have an impact on how easy and helpful something is seen to be. Even a well-designed digital system may have low staff adoption rates if it is not supported sufficiently. In order to promote adoption of digital workflow systems, it is crucial to consider both technological and human elements, as demonstrated by the alignment of Journal of Public Administration, Policy and Governance Research (JPAPGR), Vol. 3, No. 1, 2025. Available online at https://jpapgr.com/index.php/research. ISSN:2787-0464. Covered in google scholar. Ikaka, B. Fredrick, Echadu, M. Ochang, Igbang, V. Obok & Etta, Q. Marshal, 2025, 3(1):1-14

TAM with the study issue. Improved administrative efficiency, quicker service delivery, and increased stakeholder satisfaction can result from increasing adoption among non-academic staff through user-friendly interfaces and thorough training programs.

3.1 Methodology

The area of the study was the University of Calabar, Cross River State, located geographically at Latitude 4054°N and Longitude 8019°E. The University of Calabar was established in 1975 from the University of Nigeria Nsukka. The total population of the study consisted of senior registry staff across the different units, departments, and faculties of the university, amounting to 1029 (University of Calabar Establishment Unit, 2024). The sample size of two hundred and eighty-eight (288) was drawn using the Taro Yameni formula at a 5 percent error margin. A survey design was adopted for the study. Instruments used for data collection were the questionnaire and interviews. All the items were designed on a 5-point Likert rating scale ranked as 1–5 from lowest to the highest. A total of two hundred and eighty-eight (288) copies of the questionnaire were distributed, while two hundred and two (285) copies of the questionnaire were filled and returned correctly. The Pearson correlation coefficient (r) was used to test the hypotheses and determine the nature and strength of the research variables with the aid of the Special Package for Statistical Software (SSPSS).

4.0 **Results and Discussion of Findings**

Table 1: Respondents perception on whether adopting the current software tools has reduce manual errors in transcript processing (N=285)

Variables	Frequency	Percentage (%)
Strongly Agree	104	36.5
Agree	129	45.3
Undecided	32	11.2
Disagree	20	7.0
Strongly Disagree	0	0
Total	285	100

Source: Field survey, (2024).

The result in the Table 1 above showed that 104 respondents representing 36.5% of the respondents strongly agreed, 129 respondents representing 45.3% agreed, 32 respondents representing 11% were undecided, 20 respondents representing 7.0% disagreed, while none of the respondents strongly disagreed, suggesting that while most participants have formed a clear opinion, a small portion is neutral. Overall, the data reflects a predominantly favorable stance toward the variable being assessed, with a very low level of disagreement and uncertainty.

Table 2: Respondents perception on whether the automation features in the software tools help speed
up the time required to process and verify transcript

Variables	Frequency	Percentage (%)
Strongly Agree	179	62.8
Agree	65	22.8
Undecided	20	7.0
Disagree	16	5.6
Strongly Disagree	5	1.8
Total	285	100

Source: Field survey, (2024).

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The result presented in Table 2 above shows that 179 respondents representing 62.8% of the respondents strongly agreed, 65 respondents representing 22.8% agreed, 20 respondents representing 7.0% of the respondents were undecided, while 16 respondents representing 5.6% disagreed and 5 respondents representing 1.8% strongly disagreed. The result of the survey, showed that greater percentage of the participants were in support of the statement.

Table 3: Respondents' perception on whether the adoption of software tools help in handling bulk transcript requests efficiently (N=285)

Variable	Frequency	Percentage (%)
Strongly Agree	187	65.6
Agree	83	29.1
Undecided	5	1.8
Disagree	10	3.5
Strongly Disagree	0	0
Total	285	100

Source: Field survey, (2024).

Table 3 above presents survey result on the perception of the respondents when asked if the adoption of software tools help in handling bulk transcript requests efficiently. From the result as presented in Table 4.6, it was shown that 187 respondents representing 65.6% of the participants strongly agreed, 83 respondents representing 29.1% agreed, 5 respondents representing 1.8% were undecided, while 10 respondents representing 3.5% disagreed and none of the respondents strongly disagreed to the statement. However, the results revealed that majority of the participants were in support of the fact that the adoption of software tools has enhanced handling of bulk transcript requests efficiently.

Table 5: Respondents perception on whether the software tools improve the accuracy of transcript processing than manual processing methods (N=285)

Variable	Frequency	Percentage (%)
Strongly Agree	100	35.1
Agree	169	59.3
Undecided	10	3.5
Disagree	6	2.1
Strongly Disagree	0	0
Total	285	100

Source: Field survey, (2024).

Table 5 above presents survey result on the perception of respondents whether software tools improve the accuracy of transcript processing than manual processing methods. From the results, it showed that 100 respondents representing 35.1% strongly agreed to the statement, 169 representing 59.3% agreed, 10 respondents representing 3.5% were undecided, 6 respondents representing 2.1% disagreed, while none of the respondents strongly disagreed. The results of the study revealed that majority of the participants were in support of the statement.

 Table 6: Respondents perception on whether records stored on the cloud are regularly backed up and minimizes the risk of data loss (N=285)

Variable	Frequency	Percentage (%)
Strongly Agree	80	28.1
Agree	176	61.8
Undecided	0	0
Disagree	21	7.3
Strongly Disagree	8	2.8
Total	285	100

Source: Field survey, (2024).

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Table 6 above presents result of the survey on the perception of respondents whether the records stored on the cloud are regularly backed up and minimizes the risk of data loss. The study showed that 80 respondents representing 28.1% strongly agreed, 176 respondents representing 61.8% agreed, none of the respondents were undecided, 21 respondents representing 7.3% disagreed, while 8 respondents representing 2.8% of the respondents strongly disagreed. The result revealed that greater percentage of the participants was in support of the statement.

Table 7: Respondents perception on	whether the cu	rrent record	management	process is	efficient	with
the use of cloud storage (N=285)						

Variable	Frequency	Percentage (%)
Strongly Agree	75	26.3
Agree	201	70.5
Undecided	0	0
Disagree	4	1.4
Strongly Disagree	5	1.8
Total	285	100

Source: Field survey, (2024).

Table 7 above presents survey result on the perception of respondents whether the current record management process is efficient with the use of cloud storage. 75 respondents representing 26.3% strongly agreed, 201 respondents representing 70.5% agreed, none of the respondents were undecided, 4 respondents representing 1.4% disagreed and 5 respondents representing 1.8%strongly disagreed. The results shows that majority of the participants were in support of the statement.

Table 8: Respondents perception on whether the cloud system provides sufficient storage capacity for the organization's records (N=285)

Variable	Frequency	Percentage (%)
Strongly Agree	66	23.2
Agree	183	64.2
Undecided	6	2.1
Disagree	30	10.5
Strongly Disagree	0	0
Total	285	100

Source: Field survey, (2024).

Table 8 above presents result on the perception of respondents whether the cloud system provides sufficient storage capacity for the organization's records. 66 respondents representing 23.2% strongly agreed, 183 respondents representing 64.2% agreed, 6 respondents representing 2.1% were undecided, while 30 respondents representing 10.5% disagreed and none of the respondents strongly disagreed. The result therefore revealed that majority of the participants was in support of the statement.

Table 9: Respondents	perception on whether t	he cloud system a	llows for easy retri	eval of stored records
compared to manual j	process (N=285)			

Variable	Frequency	Percentage (%)
Strongly Agree	43	15.1
Agree	209	73.3
Undecided	23	8.1
Disagree	10	3.5
Strongly Disagree	0	0
Total	285	100

Source: Field survey, (2024).

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Table 9 above presents survey results on the perception of participants on whether the cloud system allows for easy retrieval of stored records compared to manual process. 43 respondents representing 15.1% of the respondents strongly agreed, 209 respondents representing 73.3% agreed, 23 respondents representing 8.1% were undecided, while 10 respondents representing 3.5% disagreed, and none of the respondents strongly disagreed to the statement.

		Adoption of	Improved speed of processing
Var	iables	software tools	transcripts
Adoption of software	Spearman Correlation	1	.843**
tools	Sig. (2-tailed)		.000
	Ν	285	285
Improved speed of	Spearman Correlation	.843**	1
processing transcripts	Sig. (2-tailed)	.000	
	N	285	285

 Table 10: Result of Correlation analysis between cloud storage system and improved record management

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

Source: Students' SPSS computations (2024).

Table 10 Shows the Pearson correlation matrix on adoption of software tools and improved speed of processing students transcript showing the correlation coefficients, significant values and the number of cases. Spearman correlation coefficient of 0.843. This high correlation suggests that increased adoption of software tools is closely associated with a significant improvement in the speed of transcript processing. The p-value (Sig. 2-tailed) is 0.000, which is less than the significance threshold of 0.01, indicating that the correlation is statistically significant, and the likelihood of this relationship occurring by chance is extremely low.

Variables		Cloud storage system	Improved record management
Cloud storage system	Spearman Correlation	1	.902**
	Sig. (2-tailed)		.000
	Ν	285	285
Improved record management	Spearman Correlation	.902**	1
	Sig. (2-tailed)	.000	
	N	285	285

Table 11: Result of Correlation analysis between cloud storage system and record management

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

Source: Students' SPSS computations (2024)

Table 11 Shows the Pearson correlation matrix on cloud storage system and improved record management showing the correlation coefficients, significant values and the number of cases. The correlation coefficient shows 0.902. This indicates that greater adoption and utilization of cloud storage systems are strongly associated with significant improvements in record management. The p-value (Sig. 2-tailed) is 0.000, which is below the 0.01 significance level, confirming that the relationship is statistically significant and unlikely to have occurred by chance. Given the large sample size of 285, the findings are reliable and suggest that the implementation of cloud storage systems can greatly enhance the efficiency, accuracy, and accessibility of record management processes.

4.1 Discussion of findings

4.1.1 Adoption of software tools and improved speed of processing transcripts

The result of the findings on this variable indicates a strong positive correlation between the Adoption of software tools and the Improved speed of processing transcripts, with a Spearman

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correlation coefficient of 0.843. This high correlation suggests that increased use of software tools is closely associated with a significant improvement in the speed at which transcripts are processed. The p-value (Sig. 2-tailed) is 0.000, which is less than 0.01, confirming that the relationship is statistically significant and unlikely to be due to chance.

The findings of the study align with Ikaka (2022) who noted that through the adoption of digital tools and information system, the data of a particular student or staff can be accessed by just a click and inserting of the student's information into the digital tool which will display the bioinformation of the individual concerned. Thus, computerized system of administration is advantageous to educational institutions due to its ability to quickly input, process, and retrieve information on time.

The implication of this result is that educational institutions aiming to improve the speed and efficiency of transcript processing should prioritize adopting appropriate software tools. The strong positive relationship indicates that leveraging digital workflows systems can streamline administrative tasks, reduce processing time, and improve service delivery. Furthermore, the statistically significant outcome underscores the importance of continuous investment in technological solutions and staff training to maximize the benefits of software adoption in academic and administrative processes.

4.1.2 Cloud storage system and improved record management

The results of the findings indicate a very strong positive correlation between the Cloud storage system and Improved record management by non-academic staff in the University of Calabar, with a Spearman correlation coefficient of 0.902. This high correlation suggests that the adoption and use of cloud storage systems increase, record management processes improve significantly in terms of efficiency, accuracy, accessibility, and security. The p-value (Sig. 2-tailed) of 0.000 is less than 0.01, indicating that the relationship is statistically significant and not due to random chance.

The findings of the study corroborate with Nwachukwu (2014) who observed that Information and Communication Technology is useful in the area of assessment and record keeping. A proper management and deployment of ICT tools would enable administrator to keep accurate records, proper accounting as well as manage information effectively, and the delivery of information. Digital technologies guarantee accuracy, efficiency prompt and instantaneous transmission of information, digital tools make both staff and students records to be stored and retrieved easily which enhances the productivity of workers.

The implication of this finding is that educational institutions seeking to enhance their record management systems should invest in cloud storage technologies. The strong relationship implies that adopting cloud solutions can lead to better data organization, faster retrieval of records, improved collaboration among departments, and reduced risks of data loss. Additionally, the statistically significant result highlights the importance of cloud storage as a strategic tool for modernizing record management practices, thereby improving overall operational efficiency.

4.1.3 Perception, barriers and challenges to the successful implementation of digital workflows system in the administrative units of the University of Calabar

The study's findings provide valuable insights into the perceptions, barriers, and challenges associated with the successful implementation of digital workflow systems in the administrative units of the University of Calabar. Overall, there is a positive perception among administrative staff regarding the potential of digital workflows to enhance efficiency and improve service delivery.

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Several respondents acknowledged that the digital workflow system has streamlined communication and accelerated administrative tasks. One interviewee remarked,

"Since we started using the digital system, approvals and document processing have become faster, making our work less stressful."

Despite these positive views, a range of barriers and challenges were also highlighted. One major barrier identified is inadequate infrastructure, particularly unreliable internet connectivity and outdated devices, which impede the consistent use of digital systems. Many staff members expressed frustration over network issues that slow down or halt workflow processes. One respondent noted,

"Sometimes, the network is so bad that we have to wait for hours before we can complete a simple task, which defeats the purpose of going digital."

Without reliable infrastructure, the full potential of digital workflows cannot be realized, leading to delays and inefficiencies. Another significant challenge is resistance to change and lack of digital skills among staff. While some staff members have embraced digital workflows, others struggle to adapt, either due to limited computer literacy or fear of new technologies. One participant commented,

"Not everyone is comfortable using the system, and some of us still prefer manual processes because we understand them better."

This resistance underscores the need for targeted training programs and awareness campaigns to promote acceptance and improve user confidence. Additionally, system reliability and integration with existing processes were cited as critical concerns. Respondents pointed out that frequent downtimes disrupt workflow and lead to backlogs in administrative tasks. Furthermore, the inability of the digital workflow system to fully integrate with legacy systems creates operational bottlenecks. According to one interviewee,

"There are times when we have to duplicate efforts by working both manually and digitally because the old records aren't properly integrated into the system."

This issue highlights the importance of system upgrades and better interoperability. Lastly, the lack of regular training and technical support was a recurring theme in the responses. Many staff members believe that with ongoing training and readily available IT support, they would be able to use the system more effectively. One respondent suggested,

"We need regular training sessions to familiarize ourselves with new features and updates, and it would help if there was always someone available to assist when we have technical issues."

In summary, while the perception of digital workflows among administrative staff at the University of Calabar is largely positive, successful implementation faces significant challenges. Addressing issues such as inadequate infrastructure, staff resistance, system reliability, and the need for continuous training and support will be crucial for fully harnessing the benefits of digital workflows in administrative processes.

5.0 Conclusion

This study examined the impact of digital workflows systems on administrative efficiency of non-academic staff in the University of Calabar. The study provided valuable insights into the revolutionary shift of adopting digital workflow tools in improving both the speed and quality of administrative processes. The findings indicate that the strategic adoption and effective use of digital workflows systems plays a crucial role in enhancing the administrative performance of non-academic staff in the areas of record management, transcripts processing, students results and school fees processing thereby leading to greater efficiency.

5.1 Recommendations

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

- a. University management should set up a monitoring system to check how well digital workflows are working and help find problems, track progress, and make improvements based on data.
- b. IT support team should be created that is always available to fix technical issues quickly and reduce delays.
- c. The university management should ensure digital systems work reliably by reducing downtime and keeping the systems properly maintained.
- d. Management should organize regular training to help staff learn how to use digital workflow systems effectively

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