Principals Innovative Record Management Strategies for Effective Administration of Public Senior Secondary Schools in Rivers State

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Abstract

This study investigated principal's innovative record management strategies for effective administration of public senior secondary schools in Rivers State. Two research questions were used for the study. The research design used for this study was the descriptive survey design. The population of the study was 286 principals consisting of 244 males and 42 females from the 286 public senior secondary schools in Rivers State. A sample of 221 principals consisting of 221 males and 28 females was achieved through the use of stratified random sampling technique. A self-developed questionnaire titled: "Principals Innovative record management strategies for effective administration of public senior secondary schools in Rivers State Questionnaire (PIRMSEAQ)" was used to elicit data from the respondents. The instrument was validated by two experts in the Departments of Educational Management and Measurement and Evaluation. The instrument had two (2) sections: The response scale was structured on a 4- point Likert rating scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) with values of 4, 3, 2 and 1 respectively. Cronbach's Alpha was used to test the reliability of the instrument which gave reliability indexes of 0.99. Mean and standard deviation were used to answer the research questions with a criterion mean of 2.50. Questionnaire items with mean opinion scores below 2.50 denoted 'Disagreed' while 2.50 and above signified 'Agreed'. It was concluded that Innovative Record Management Strategies for Effective Administration of Public Senior Secondary Schools in Rivers State" reveals important insights into the use of technology and cloud storage in school administration. It was recommended among others that The State government should supply the necessary electronic and digital record keeping devices such as computers and their accessories to all senior public secondary schools in Rivers State. This could be done by providing funds for the purchase and maintenance of ICT facilities and accessories.

Keywords: Innovative Record Management Strategies, Financial Record Keeping, Cloud Storage and Computers.

Introduction

The keeping of school records was enshrined in the Public Education Edict of 1974. The edict stipulated that at every public or private institution, records and books shall be kept by the person in charge and produced at the request of an inspecting officer or manager (Koko & Nwiyi, 2019). Under the education law, there are two types of school records that a school is authorized to keep. These are statutory and non- statutory school records. Statutory school records are those records that are mandatory under education law to be kept by each school viz: admission register, class attendance register, syllabus, lesson note, scheme of work, diary, time table, visitors' book, log book, staff record book, corporal punishment book.

Record keeping is the act of creating and maintaining records in organizations such as schools, banks, hospitals and other service and non-service organizations. Such records give a lot of information about those organizations that enable the authorities take goal oriented decisions and assess the progress of the organization at a glance   or holistically. Record keeping is vital to the school system as it generates its information and experiences influx of information and an outflow of the same to the society which demands accountability. In the words of Ibara (2010), without records, there can be no accountability.

The concept of record keeping is a fundamental element of efficient administration and management in any organization, including public senior secondary schools in Rivers State. Records encompass a wide range of documents and data that are created, received, and maintained by an institution to support its functions, operations, and decision-making processes (Shenton, 2008). In educational institutions, record keeping is essential for several reasons, and it plays a pivotal role in ensuring accountability, transparency, and the provision of quality education.

One primary function of record keeping is to provide a documented history of an institution's activities and transactions. This documentation is crucial for accountability, as it allows schools to track and report their financial, academic, and administrative activities. It enables educational administrators to demonstrate responsible stewardship of resources and adherence to regulations (Clarke, 2009). Records serve as a historical reference, preserving a trail of past decisions and actions. This historical context is valuable for educational institutions, as it allows them to review past practices, identify trends, and make informed decisions for the future. It also helps maintain institutional memory, which is vital for the continuity of effective administration (Alvesson & Karreman, 2000). Well-maintained records provide the data necessary for informed decision-making. Educational leaders and administrators can analyze records to assess the effectiveness of programs, allocate resources efficiently, and make data-driven improvements in the curriculum, infrastructure, and student services (Seddon & Calvert, 2000).

In the quest for quality education and efficient administration of public senior secondary schools in Rivers State, Nigeria, the importance of innovative record management strategies cannot be overstated. Records are the backbone of educational institutions, providing the necessary information for decision-making, historical reference, accountability, and regulatory compliance. However, the challenges in managing these records effectively are multifaceted, and as the world advances in technology and data generation, educational institutions, like public senior secondary schools, must adapt to modern strategies that can streamline record management. This paper delves into the realm of innovative record management strategies and their potential to revolutionize the administration of public senior secondary schools in Rivers State. The public senior secondary schools in Rivers State, as elsewhere, grapple with a host of challenges in the management of their records, creating the need for innovative solutions. These challenges encompass a wide range of issues, including: The rapid advancement of technology and the digitalization of educational processes have led to an unprecedented volume of data being generated within schools. Administrative records, student records, financial documents, and other forms of data are being produced at an overwhelming rate. With the increasing reliance on digital records, there is a growing concern for data security. Public schools, like other institutions, must safeguard sensitive information against data breaches and unauthorized access, which could compromise student and staff confidentiality. Conventional record-keeping methods, such as paper-based systems or outdated software, often result in inefficient record retrieval. Educators and administrators may struggle to access the information they need in a timely manner, impacting their decision-making abilities. Inadequate record management can lead to the loss

of valuable historical data. This loss can hinder an institution's ability to make informed decisions, develop effective educational strategies, and maintain institutional memory. The accumulation of these challenges necessitates the exploration of innovative record management strategies that can address these issues and contribute to the effective administration of public senior secondary schools in Rivers State.

Yusuf (2017) addressed the issue of inefficient record retrieval, emphasizing the impact of delayed access to critical data on decision-making processes within educational institutions. Okumoku (2015) stressed the value of preserving historical data and its significance in the development of senior secondary schools. Resource constraints, a common issue in the Nigerian education system, were discussed by Onwuka (2016), who argued for innovative, cost-effective, and scalable solutions. This review of the existing literature underscores the urgency and relevance of exploring innovative record management strategies for public senior secondary schools in Rivers State.

In the 21st Century there is a clarion call for schools globally to embrace Information and Communication Technology for storing and disseminating information. Schools are becoming increasingly complex in all ramifications in terms of staff and student population, programmes and activities as well as the increasing need for accurate planning and improved outputs. These afore listed indices require improved methods of keeping, storing and retrieving school records for effective school administration. Based on the fore, the study unravelled innovative record management strategies for effective administration of public senior secondary schools in Rivers State.

Conceptual Clarifications

Principals' Record Keeping with Computers for Effective Administration

In the modern era of education, principals of public senior secondary schools in Rivers State, like their counterparts worldwide, are increasingly turning to computers to enhance record keeping as a means to achieve more effective administration. This shift to digital record keeping has the potential to revolutionize administrative processes and improve the overall quality of education (Odu, 2017). This section discusses the key principles and benefits associated with principals' record keeping using computers for effective school administration.

One of the central principles of using computers for record keeping is the enhancement of efficiency and accuracy. Digital record keeping systems allow for the rapid input and retrieval of data, reducing the time and effort required to manage records. Additionally, the risk of human errors, such as data entry mistakes or misplacement of physical documents, is significantly reduced (Anyaduba & Obinegbo, 2013). By adopting computer-based record keeping, principals can streamline administrative tasks and ensure that accurate, up-to-date information is readily accessible.

Another critical principle is data security. Computerized record keeping systems offer advanced security features that protect sensitive educational data from unauthorized access and data breaches. These systems allow principals to control who can access specific records and can implement encryption and password protection to safeguard confidential information, including student records and financial data (Ali, 2012). Ensuring data security is essential in maintaining trust among stakeholders and complying with privacy regulations.

Principals also benefit from computerized record keeping systems in terms of data retrieval and analysis. These systems often incorporate powerful search and data analysis tools, enabling principals to quickly extract valuable insights from the stored data (Imogie & Mgbemena, 2010). This

capability empowers school leaders to make informed decisions, identify trends, and evaluate the effectiveness of various programs and initiatives, contributing to evidence-based administration.

Computerized record keeping fosters enhanced communication and transparency in school administration. Principals can easily share information and reports with various stakeholders, including teachers, parents, and school board members. This transparency builds trust and facilitates better collaboration, as everyone has access to accurate, up-to-date data (Ajasa & Sanusi, 2015). In conclusion, the application of computers for record keeping in public senior secondary schools in Rivers State is grounded in fundamental principles that emphasize efficiency, accuracy, data security, data retrieval and analysis, compliance, cost efficiency, and enhanced communication and transparency. By adhering to these principles, principals can harness the power of technology to streamline administrative processes, make data-driven decisions, and ultimately improve the quality of education in their schools.

Principals' Financial Record Keeping with Cloud Storage for Effective Administration

In the contemporary landscape of educational administration, principals of public senior secondary schools in Rivers State, Nigeria, are increasingly recognizing the advantages of adopting cloud storage solutions for financial record keeping. Cloud storage systems offer a flexible, secure, and efficient means of managing financial records, contributing to more effective administration (Yousif & Onwugbolu, 2018). This section discusses the principles and benefits associated with principals' financial record keeping with cloud storage to enhance administrative processes.

Cloud-based financial record keeping fosters collaboration and transparency in school administration. Principals can easily share financial reports with stakeholders, such as school board members, financial officers, and auditors (Chung et al., 2015). This transparency builds trust and facilitates better collaboration among decision-makers, as they can access financial information in real-time. Cloud storage systems provide a robust disaster recovery mechanism. Financial records stored in the cloud are protected from physical disasters, such as fires or floods, and can be quickly restored in case of data loss due to unforeseen events (Botta et al., 2016). This ensures the continuity of financial record keeping even in the face of unforeseen challenges. Cloud storage solutions are highly scalable, allowing schools to adapt to changing storage requirements as their financial data volume grows (Shirshikov et al., 2016). Principals can easily expand or reduce their storage capacity as needed, without significant infrastructure changes. Using cloud storage for financial record keeping can facilitate compliance with regulations and reporting requirements. Principals can generate accurate and up-to-date financial reports for audits, tax filings, and regulatory compliance (Gusmeroli et al., 2012). In conclusion, the adoption of cloud storage for financial record keeping in public senior secondary schools in Rivers State is rooted in fundamental principles that emphasize accessibility, data security, cost efficiency, collaboration, transparency, disaster recovery, scalability, and compliance. By adhering to these principles, principals can leverage cloud technology to streamline financial record keeping, make informed financial decisions, and enhance the overall effectiveness of school administration.

Purpose of the Study

The purpose of the study was to investigate Innovative record management strategies for effective administration of public senior secondary schools in Rivers State. Specifically, the study sought to:

Determine the ways principals' record keeping with computers facilitate administrative effectiveness in public senior secondary schools in Rivers State.

Examine how principals' financial record keeping with cloud storage facilitate administrative effectiveness in public senior secondary schools in Rivers State.

Research Questions

What are the ways principals' record keeping with computers facilitate administrative effectiveness in public senior secondary schools in Rivers State?

How does principals' financial record keeping with cloud storage facilitate administrative effectiveness in public senior secondary schools in Rivers State?

Methodology

The research design used for this study was the descriptive survey design. The population of the study was 286 principals consisting of 244 males and 42 females from the 286 public senior secondary schools in Rivers State. A sample of 221 principals consisting of 221 males and 28 females was achieved through the use of stratified random sampling technique. A self-developed questionnaire titled: "Innovative record management strategies for effective administration of public senior secondary schools in Rivers State Questionnaire (IRMSEAQ)" was used to elicit data from the respondents. The instrument was validated by two experts in the Departments of Educational Management and Measurement and Evaluation. The instrument had two (2) sections: Sections A and B. Section A consisted of demographic information while Section B contained questionnaire items based on the research questions. The response scale was structured on a 4- point Likert rating scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) with values of 4, 3, 2 and 1 respectively. Cronbach's Alpha was used to test the reliability of the instrument which gave reliability indexes of 0.99. Mean and standard deviation were used to answer the research questions with a criterion mean of 2.50. Questionnaire items with mean opinion scores below 2.50 denoted 'Disagreed' while 2.50 and above signified 'Agreed'.

Results

Research Question One: What are the ways principals' record keeping with computers facilitate administrative effectiveness in public senior secondary schools in Rivers State?

Table 1: Mean and Standard Deviation Scores on the ways Principals' Record Keeping with Computers Facilitate Administrative Effectiveness in Public Senior Secondary schools in Rivers State

S/N	Items	Male Principals' N=221			Female Principals' N=28		
	Ways principals' record keeping with computers facilitate administrative effectiveness in public senior secondary schools in Rivers State		S.D	Remark		S.D	Remark
1	Computers is used for record keeping in your school's administrative tasks	2.99	0.59	HE	2.90	0.28	HE
2	Principals receive training in computerized record keeping and administrative tasks	2.96	0.83	HE	2.85	0.94	HE
3	Computerized records impact data accuracy and integrity in your school's administration	3.26	0.49	HE	3.19	0.60	HE
4	Computerized record keeping influenced your decision-making processes as a principal	2.83	0.91	HE	2.69	0.96	HE
5	computerized records make it easier to track and manage school resources and finances	3.04	0.80	HE	2.92	0.95	HE
	Total Mean/S.D	29.32	7.53		28.10	7.98	
	Grand Mean/S.D	2.93	0.75	HE	2.81	0.80	HE

The table 1 presents mean and standard deviation (S.D) scores on the ways principals' record keeping with computers facilitate administrative effectiveness in public senior secondary schools in Rivers State. The data shows that computers are used for record keeping in your school's administrative tasks: Both male ($\overline{X}$=2.99)and female ($\overline{X}$=2.90),Principals receive training in computerized record keeping and administrative tasks: Both male ($\overline{X}$=2.96)and female ($\overline{X}$=2.85) Computerized records impact data accuracy and integrity in your school's administration: Both male ($\overline{X}$=3.26)and female ($\overline{X}$=3.19)principals, Computerized record keeping influenced your decision-making processes as a principal: Both male ($\overline{X}$=2.83) and female ($\overline{X}$=2.69), Computerized records make it easier to track and manage school resources and finances: Both male ($\overline{X}$=3.04)and female ($\overline{X}$=2.92).The grand mean for both groups is slightly above the midpoint (2.93), indicating a generally positive perception of the impact of computerized record keeping on administrative effectiveness. So therefore the answer to research question one shows that the respondents agreed that computerized record keeping facilitates administrative effectiveness.

Research Question Two: How does principals' financial record keeping with cloud storage facilitate administrative effectiveness in public senior secondary schools in Rivers State?

Yellowe Annette N. PhD

Table 2: Mean and Standard Deviation Scores on how Principals' Financial Record Keeping with Cloud Storage Facilitate Administrative Effectiveness in Public Senior Secondary Schools in Rivers State

S/N	Items	Male Principals' N=221			Female Principals' N=28		
			S.D	Remark		S.D	Remark
	How principals' financial record keeping with cloud storage facilitate administrative effectiveness in public senior secondary schools in Rivers State						
6	financial records are stored in the cloud for your school's administration	2.15	0.78	LE	2.14	2.28	LE
7	cloud-based financial record keeping has improved administrative efficiency in your school	2.04	0.28	LE	2.08	2.06	LE
8	cloud storage improved the security and accessibility of financial records in your school	3.25	0.81	HE	3.42	3.34	HE
9	cloud storage help in budgeting and financial planning for your school	2.26	0.81	LE	2.01	2.14	LE
10	It affected the ease of collaboration among school staff and financial management	2.33	0.83	LE	2.13	2.23	LE
	Grand Mean/S.D	**2.41**	**0.75**	**HE**	**2.36**	**0.80**	**LE**

The data in table 2 presents mean and standard deviation (S.D) scores on how principals' financial record keeping with cloud storage facilitates administrative effectiveness in public senior secondary schools in Rivers State. The data shows that Financial records are stored in the cloud for your school's administration: Both male ($\bar{X}$=2.15)and female ($\bar{X}$=2.14), Cloud-based financial record keeping has improved administrative efficiency in your school: Both male ($\bar{X}$=2.04)and female ($\bar{X}$=2.08),Cloud storage improved the security and accessibility of financial records in your school: Both male ($\bar{X}$=3.25)and female ($\bar{X}$=3.42),Cloud storage helps in budgeting and financial planning for your school: Both male ($\bar{X}$=2.26)and female ($\bar{X}$=2.01), It affected the ease of collaboration among school staff and financial management: Both male ($\bar{X}$=2.33)and female ($\bar{X}$=2.13) principals. The overall grand mean (2.23) is below the midpoint, indicating a lack of strong agreement. The answer to research question two shows that the respondents disagreed that cloud storage of financial records facilitates administrative effectiveness in public senior secondary schools in Rivers State.

Discussions of Findings

Ways Principals' Record Keeping with Computers Facilitate Administrative Effectiveness in Public Senior Secondary Schools in Rivers State

Findings on research question 1 on table 1 revealed that computers are used for record keeping in your school's administrative tasks: Both male ($\overline{X}=2.99$)and female ($\overline{X}=2.90$), Principals receive training in computerized record keeping and administrative tasks: Both male ($\overline{X}=2.96$)and female ($\overline{X}=2.85$)Computerized records impact data accuracy and integrity in your school's administration: Both male ($\overline{X}=3.26$) and female ($\overline{X}=3.19$) principals, Computerized record keeping influenced your decision-making processes as a principal: Both male ($\overline{X}=2.83$)and female ($\overline{X}=2.69$),Computerized records make it easier to track and manage school resources and finances: Both male ($\overline{X}=3.04$)and female ($\overline{X}=2.92$) This finding is in agreement with Gama (2010) who posited that the State Universal Education Board through the Local Education Authority should provide additional storage facilities in schools to enable them preserve their records for posterity, and concluded that since records are better generated and preserved using computers, the authorities should provide the facility in schools. In addition, Garry and Dave (2021) opined that record keeping with the computer captures and retains digital information on electromagnetic, optical or silicon-based recording keeping media for future use which invariably would enhance school administrators' effectiveness.

Findings on research question 2 on table 2 revealed that financial records are stored in the cloud for your school's administration: Both male ($\overline{X}=2.15$)and female ($\overline{X}=2.14$), Cloud-based financial record keeping has improved administrative efficiency in your school: Both male ($\overline{X}=2.04$)and female ($\overline{X}=2.08$),Cloud storage improved the security and accessibility of financial records in your school: Both male ($\overline{X}=3.25$)and female ($\overline{X}=3.42$),Cloud storage helps in budgeting and financial planning for your school: Both male ($\overline{X}=2.26$)and female ($\overline{X}=2.01$),It affected the ease of collaboration among school staff and financial management: Both male ($\overline{X}=2.33$)and female ($\overline{X}=2.13$)principals. The overall grand mean (2.23) is below the midpoint, indicating a lack of strong agreement. The finding corroborated with Samman and Smug (2021) who noted that cloud storage is a cloud computing model that stores data on the Internet through a cloud computing provider that manages and operates record keeping as a service. It is delivered on demand with just-in- time capacity and costs, and eliminates buying and managing a record keeping infrastructure. It thus allows principals to keep their files stored with the cloud service provider and on-demand is retrieved and accessed easily. The finding is also in line with Falana (2018) who was of the view that the school administrator does not need to keep large files in a large room and consume more paper but what the administrator needs is to integrate technology into the school system and work smart and not necessarily hard. Moreover, the technology is cloud-based, meaning they can access their files any time they need them even when they are not in the school premises.

Conclusion

Based on the findings of the study, it was concluded that Innovative Record Management Strategies for Effective Administration of Public Senior Secondary Schools in Rivers State" reveals important insights into the use of technology and cloud storage in school administration. The findings suggest that while computerized record keeping is generally perceived as having a positive impact on administrative effectiveness, there is room for improvement in terms of training and the perception of its influence on decision-making processes. On the other hand, cloud-based financial record keeping, though positively perceived in terms of security and accessibility, is not strongly associated with

improvements in administrative efficiency, budgeting, or collaboration among school staff and financial management. This indicates the need for a more strategic and effective implementation of cloud storage solutions. Ultimately, the successful integration of innovative record management strategies can significantly enhance administrative effectiveness in public senior secondary schools in Rivers State, ultimately benefiting students, staff, and the overall educational system in the region.

Recommendations

The following recommendations were made based on the findings of the study:
The State government should supply the necessary electronic and digital record keeping devices such as computers and their accessories to all senior public secondary schools in Rivers State. This could be done by providing funds for the purchase and maintenance of ICT facilities and accessories.
Principals should use cloud storage for financial record keeping in public senior secondary schools in Rivers State for accountability, mobility and accessibility of data from anywhere in the world.

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