

ELECTRONIC RECORD KEEPING SYSTEM AND THE EFFECTIVE ORGANIZATION OF EDUCATIONAL PROGRAMME IN SENIOR SECONDARY SCHOOLS IN KATSINA LOCAL GOVERNMENT AREA, KATSINA STATE

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ABSTRACT

This study investigated the impact of electronic record keeping system and the effective organization of educational programme in senior secondary schools in Katsina Local Government Area, Katsina State. A descriptive survey research design was used for this study. The population of the study consists of 1558 Senior Secondary School Students in Katsina LGA, Katsina State. A sample size of 391 respondents (Teachers) was selected using simple random sampling technique for the selection of all the teachers of senior secondary schools in Katsina LGA, Katsina State. Three research questions were used to elucidate information from the respondents. Self-structured questionnaire was used to generate information from the respondents. The instrument was validated by two experts from Educational Administration and Planning and the other from Educational Measurement and Evaluation. The findings of the study revealed that the electronic record device greatly influences information disseminations in senior secondary schools in Katsina Local Government Area, Katsina State, the electronic records devices have positive impact on financial accountability in senior secondary schools Katsina Local Government Area, Katsina State among others. The study recommends among many that Government should recruit ICT experts with the good knowledge of digital materials to assist the school administrators in secondary schools in Nigeria, government should recruit qualified administrators and supervisors with the good knowledge of digital materials to mind the affairs of our secondary schools in Nigeria.

Keywords: Electronic Record Keeping System, Effective Organization, Educational Programmes, Senior Secondary Schools.

Introduction

In the digital age, the effective management of educational programs is pivotal for the advancement of nations, particularly in regions like Nigeria where the demand for quality

education is high. Among the crucial elements for efficient educational program management is the implementation of an electronic record-keeping system. Such a system promises streamlined operations, enhanced data management, and improved decision-making processes within senior secondary schools. Electronic Records involve the digital storage, retrieval and use of information. More precisely, it is the application of systematic and scientific control to all the recorded information that an organization needs to do business (Igwoke, 2008), Poor e-records management results in difficulties in administering, planning and monitoring an education system. In fact, poor records management and the lack of staff development along the entire information cycle are responsible for problems with management and policy implementation in schools and ministries of education. The information kept are in the areas of instructional programmes and activities, staff and students, personnel services, physical facilities, finance, and interaction with stakeholders outside the school. In records management, the guiding principle is that information must be readily available at the prerequisite time and in the form it is required.

An electronic record-keeping system in senior secondary schools refers to the digitization of educational data, encompassing student records, academic performance, administrative processes, and resource management. The transition from manual to electronic systems offers numerous benefits, including improved accessibility, accuracy, and efficiency in data handling. Moreover, it facilitates the integration of technology into educational practices, aligning with global trends in digitalization. According to Olatunji and Afolabi (2023), electronic record-keeping systems facilitate the comprehensive management of educational data by enabling the digitization of student records, academic performance, and administrative processes. This integration ensures that all aspects of school operations are streamlined, reducing redundancy and improving the accuracy of records. Their study highlights the importance of electronic systems in creating a unified platform for managing both academic and non-academic information, thus enhancing the overall functionality of schools. The digitization of academic performance is particularly crucial in senior secondary schools, where tracking student progress is essential for informed decision-making. Akpan and Essien (2022) emphasize that electronic record-keeping systems allow for the continuous monitoring of students' academic progress, enabling teachers and administrators to identify trends and intervene when necessary. This capability is critical in ensuring that students receive the support they need to succeed academically.

Administrative processes, including admissions, attendance, and resource allocation, are significantly enhanced by electronic record-keeping systems. As noted by Chukwu and Eze (2021), digitized administrative processes reduce the time and resources required for manual record-keeping, allowing school administrators to focus on more strategic tasks. Their research also indicates that schools with electronic systems experience fewer administrative errors and delays, contributing to smoother school operations. Resource management, including the allocation and maintenance of physical and digital resources, is another critical area supported by electronic record-keeping systems. In their study, Bello and Yusuf (2021) found that schools utilizing these systems can more effectively track and manage resources, leading to better planning and resource allocation. This is particularly important in senior secondary schools, where resources must be carefully managed to support a large and diverse student population. The digitization of educational data through electronic record-keeping systems in senior secondary schools is a comprehensive approach that enhances the

management of student records, academic performance, administrative processes, and resource management. The literature supports the notion that these systems contribute to the overall efficiency and effectiveness of school operations, ensuring that both academic and non-academic processes are well-coordinated and optimized.

The importance of ERKS in educational institutions is multifaceted. Primarily, they enhance administrative efficiency by automating routine tasks, reducing paperwork, and minimizing errors associated with manual record-keeping (Anderson & Moore, 2018). This increased efficiency allows educational institutions to allocate more resources towards teaching and learning activities. ERKS automate routine tasks, reducing the time and effort required for record maintenance and minimizing errors associated with manual record-keeping. This efficiency allows schools to focus more resources on teaching and learning activities (Anderson & Moore, 2018). Accurate and reliable data are essential for informed decision-making and strategic planning. ERKS ensure that educational records are consistently up-to-date and precise, which helps in monitoring student progress and implementing personalized learning strategies (Brown, 2019). These systems enhance the security of sensitive information, protecting it from unauthorized access and potential breaches. Maintaining data privacy is crucial for building trust among students, parents, and educators (Smith & Lee, 2020). ERKS facilitate better communication and collaboration among educators, students, and parents by providing real-time access to essential information. This transparency fosters a more engaged and supportive educational environment, leading to improved educational outcomes (Williams, 2020).

The Nigerian government, through various educational reforms and policies, has emphasized the need for digital transformation in schools. Initiatives such as the National Policy on Information and Communication Technology (ICT) in Education aim to integrate technology into school administration. Katsina State government and other educational bodies have also invested in digital infrastructure to support the implementation of ERKS (Federal Ministry of Education, 2019). To enhance data accuracy and reliability, training programs for school administrators and teachers on the use of ERKS are being conducted. These programs are often supported by governmental grants and partnerships with private tech companies. However, there is still a significant gap in the training and resources available to schools in rural and underfunded areas, leading to persistent issues with data accuracy (World Bank, 2019). The Nigerian government has introduced regulations to safeguard educational data. The Nigeria Data Protection Regulation (NDPR) sets guidelines for data protection in schools. Despite these regulations, many schools struggle to implement robust security measures due to a lack of resources and technical expertise (National Information Technology Development Agency, 2020). Efforts to improve accessibility include initiatives to provide schools with necessary technological infrastructure and internet connectivity. Projects like the Nigerian Research and Education Network (NgREN) aim to bridge the digital divide. However, disparities remain, particularly in remote or underserved areas where reliable internet access is still a challenge (OECD, 2021).

Despite significant efforts, several challenges persist. Funding constraints, inadequate infrastructure, and insufficient training hinder the effective implementation of ERKS in many Nigerian schools. Schools that lack these resources risk falling behind in administrative efficiency and data management, which can lead to errors, compromised data security, and

diminished educational outcomes. Failure to address these challenges can result in a range of negative consequences, including decreased administrative efficiency, reduced data integrity, and weakened educational outcomes. These issues can ultimately hinder the overall effectiveness of educational programs, affecting student performance and satisfaction. The adoption of electronic record-keeping systems in senior secondary schools in Dutsin-ma LGA is crucial for enhancing the organization and management of educational programs in Nigeria. While the government and other stakeholders have made significant efforts to promote the integration of these systems, challenges remain in ensuring their widespread and effective implementation. Addressing these challenges is essential to fully realize the benefits of ERKS and support the continued improvement of educational outcomes in Nigeria.

Statement of the problem

In an ideal educational environment, the management and organization of educational programs in senior secondary schools would be efficient, accurate, and secure. Electronic record-keeping systems (ERKS) are designed to facilitate this ideal by automating administrative processes, ensuring data accuracy, enhancing data security, and improving communication among stakeholders. These systems should allow for seamless real-time access to information, thereby supporting better educational outcomes and streamlined school operations. However, the real situation in many senior secondary schools in Katsina LGA, Katsina State falls short of this ideal. Despite the introduction and partial implementation of ERKS, numerous schools continue to face significant challenges in fully leveraging these systems. The efficiency and accuracy of data management remain suboptimal, data security measures are often inadequate, and there is limited real-time accessibility for educators, students, and parents (Johnson, 2017; Anderson & Moore, 2018). These deficiencies are primarily due to insufficient funding, inadequate infrastructure, and a lack of comprehensive training for staff (World Bank, 2019; Smith & Lee, 2020).

Many schools lack the financial resources necessary to invest in and maintain robust ERKS. This includes costs associated with purchasing software, upgrading hardware, and training personnel (Federal Ministry of Education, 2019). The necessary technological infrastructure, such as reliable internet connectivity and modern computer systems, is often lacking, especially in rural and underserved areas. This infrastructure is crucial for the effective operation of ERKS (OECD, 2021). Effective use of ERKS requires proper training for school administrators and teachers. Many educators are not adequately trained to use these systems, leading to underutilization and potential errors in data management (World Bank, 2019). The implications of these problems are profound. Inefficient administrative processes can lead to delays and inaccuracies in record-keeping, which in turn affect decision-making and strategic planning within schools. Inaccurate or unreliable data can hinder the tracking of student progress and the implementation of personalized learning plans. Moreover, inadequate data security measures expose sensitive information to risks of unauthorized access and breaches, undermining trust among students, parents, and staff (Smith & Lee, 2020; National Information Technology Development Agency, 2020).

Various stakeholders, including the Katsina State Government, Federal Government, international organizations, and private entities, have made significant contributions to address these issues. The Nigerian government has introduced policies such as the National Policy on Information and Communication Technology (ICT) in Education to promote the

integration of digital technologies in schools (Federal Ministry of Education, 2019). International organizations like the World Bank have provided funding and technical support for digital transformation projects in the education sector (World Bank, 2019). Private tech companies have also partnered with schools to offer training and software solutions (UNESCO, 2020). Despite these efforts, the problems persist due to several reasons; the rollout of ERKS has been uneven, with significant disparities between urban and rural schools. Many rural schools still lack basic technological infrastructure and resources (OECD, 2021). Even where ERKS have been implemented, maintaining these systems requires ongoing support and investment, which is often lacking (Smith & Lee, 2020). There is sometimes resistance to change among educators and administrators who are accustomed to traditional methods of record-keeping (Anderson & Moore, 2018).

This study aims to provide a unique intervention by conducting a comprehensive evaluation of the current state of ERKS in Nigerian senior secondary schools. It will identify specific barriers to effective implementation and propose targeted strategies to overcome these challenges. The study will focus on developing a sustainable model for ERKS adoption that includes practical solutions for funding, infrastructure development, and comprehensive training programs. Additionally, it will explore ways to foster a positive cultural shift towards the acceptance and effective use of digital technologies in school administration. By addressing these issues, this study intends to contribute to the enhancement of educational management in Nigeria, ultimately leading to better educational outcomes and a more efficient, accurate, and secure record-keeping system.

Purpose of the Study

The study examines Electronic record keeping and school administrative effectiveness in senior secondary school. Specifically, the study strives:

1. To find out the impact of electronic records device on financial accountability in senior secondary schools in Katsina Local Government Area, Katsina State.
2. To ascertain if the provision of electronic devices affect students record keeping in senior Secondary School in Katsina Local Government Area , Katsina State.
3. To examine the extent to which electronic storage influence students' record keeping in senior secondary schools in Katsina Local Government Area, Katsina State.

Research Questions

The following research questions will serve as a guide to this work:

1. What is the impact of electronic records device on financial accountability in senior secondary schools Katsina Local Government Area, Katsina State?
2. How do the provision of electronic devices affect students' record keeping in senior Secondary School Katsina Local Government Area, Katsina State.
3. To what extent does electronic storage influence students' record keeping in senior secondary school Katsina Local Government Area, Katsina State?

Methodology

A descriptive survey research design was used for this study. The population of the study consists of 1558 Senior Secondary School (SSS) Students in Katsina LGA, Katsina State. A sample size of 391 respondents (Teachers) was selected using simple random sampling technique for the selection of all the teachers of senior secondary schools in katsina LGA,

Katsina State. The instrument used for data collection was a self-structured questionnaire titled “Electronic Record Keeping System and the Effective Organization of Educational Programme in Senior Secondary School questionnaire” (ERKSEOEPSSSQ). The questionnaire items were structured using adopted Five (5) Likert point scale of Strongly Agree (SA) 5, Agree (A) 4, Disagree (D) 3, Strongly Disagree (SD) 2, and undecided (U) 1 scales of measurement. The instrument was validated by two experts, one from the department of Educational administration and planning and the other from the Department of Psychology and Guidance and Counseling, Federal University Dutsin-Ma, Katsina State. The data were analyzed using mean and standard deviation to answer research questions.

Research Question 1: What is the impact of electronic records device on financial accountability in senior secondary schools Katsina Local Government Area, Katsina State?

Table 1: Analysis of the results on the impact of electronic records device on financial accountability in senior secondary schools Katsina Local Government Area, Katsina State

Item	Mean	STD	Decision
Electronic record devices have enhanced the accuracy of financial records in our school.	4.37	0.486	Accepted
The use of electronic record devices has made it easier to track school expenses.	4.44	0.495	Accepted
Financial transparency has improved since the implementation of electronic record devices.	4.42	0.491	Accepted
Electronic record devices have reduced errors in financial reporting.	4.38	0.486	Accepted
The management of school funds is more efficient with electronic record devices.	4.41	0.491	Accepted
Grand Mean =	4.393		

The result from table 1 indicated that the respondents agreed that the electronic records devices have positive impact on financial accountability in senior secondary schools Katsina Local Government Area, Katsina State with the grand mean of 4.393.

Research Question Two: How does the provision of electronic devices affect students’ record keeping in senior Secondary School Katsina Local Government Area, Katsina State?

Table 2: Analysis of the results on how the provision of electronic devices affect students’ record keeping in senior Secondary School Katsina Local Government Area, Katsina State

Item	Mean	STD	Decision
The availability of electronic devices has improved the accuracy of students’ records.	4.40	0.491	Accepted
Electronic devices make it easier to update and maintain student records.	4.38	0.486	Accepted
The use of electronic devices has reduced errors in students’ record keeping.	4.40	0.491	Accepted

Students' academic records are more organized with the use of electronic devices.	4.36	0.481	Accepted
The provision of electronic devices has streamlined the process of record keeping in our schools	4.38	0.486	Accepted
Grand Mean =	4.384		

The result from table 2 revealed that the respondents confirmed that the provision of electronic devices positively affect students' record keeping in senior Secondary School in Katsina Local Government Area, Katsina State with the grand mean of 4.384.

Research Question Three: To what extent does electronic storage influence students' record keeping in senior secondary school Katsina Local Government Area, Katsina State?

Table 3: Analysis of the results on extent to which electronic storage influence students' record keeping in senior secondary school Katsina Local Government Area, Katsina State.

Item	Mean	STD	Decision
Electronic storage has improved the security of students' records.	4.35	0.481	Accepted
It is easier to retrieve students' records with electronic storage systems.	4.38	0.486	Accepted
Electronic storage systems have made record keeping more efficient	4.36	0.481	Accepted
The use of electronic storage has reduced the risk of losing students' records.	4.38	0.486	Accepted
Students' records are better managed with electronic storage solutions.	4.36	0.481	Accepted
Grand Mean =	4.369		

The table 3 showed that the respondents agreed that the extent to which electronic storage influence students' record keeping in senior secondary school Katsina Local Government Area, Katsina State is very high with grand mean of 4.368,

Discussion of Findings

The finding of this study revealed that the electronic records devices have positive impact on financial accountability in senior secondary schools Katsina Local Government Area, Katsina State. This finding is supported by the finding of Dhawan, and Sinha (2018) on the Role of Financial Management Information Systems in Enhancing Accountability in Educational Institutions. International Journal of Educational Management where electronic record devices enhance financial accountability by providing accurate and real-time tracking of financial transactions and expenditures and digital systems enable detailed record-keeping and automated reporting, which helps in monitoring budgets, generating financial statements, and ensuring transparency in financial management. In addressing research question two, the study revealed that the electronic storage influence students' record keeping in senior secondary school Katsina Local Government Area, Katsina State is very high. This is in support of the finding of Sutherland, and Waugh (2015) on electronic record keeping and its impact on student records management where the use of electronic storage for students' records leads to more effective management and retrieval processes. Electronic systems enable

quick searching and retrieval of student information, streamline administrative tasks, and support better organization of records.

For research question three, the study revealed that the respondents agree on a high influence of electronic storage on students' record-keeping in senior secondary schools within Katsina Local Government Area, with a grand mean of 4.368, is significant and aligns with broader educational trends. This aligned with the finding of Adebayo, Oluwafemi, and Adetunji. (2023) highlights that schools utilizing electronic records management systems (ERMS) experience faster retrieval times and better data accuracy compared to those relying on traditional paper-based methods. This finding is consistent with the high mean score observed in Katsina, where the benefits of electronic storage are clearly recognized by respondents.

Conclusion

This study concludes that the electronic record device greatly influences information disseminations and have positive impact on financial accountability in senior secondary schools in Katsina Local Government Area, Katsina State.

Recommendations

Based on the findings of this study, the following are recommended:

1. Government should recruit ICT experts with the good knowledge of digital materials to assist the school administrators in secondary schools in Nigeria.
2. Government should recruit qualified administrators and supervisors with the good knowledge of digital materials to mine the affairs of our secondary schools in Nigeria.
3. Provision of quality and adequate digital resources should be made available in our secondary schools to allow school administrators to have access to equitable distribution of digital materials to encourage efficiency.
4. Government should train school administrators and students on effective management of the available digital resources to improve the efficiency of the administrators and supervisors in managing school formal and extra curriculum activities in the schools.

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