

# ICT Integration in Management of Public Secondary Schools in Buikwe District Uganda

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## Abstract

This study investigated the role of Information and Communication Technology (ICT) in managing public secondary schools, concentrating on three primary areas: human resource management, marketing management, and operational management. The effective implementation of ICT tools in these sectors is vital for boosting the efficiency and effectiveness of school administration. The research specifically aimed to assess the impact of technological integration on school management in Buikwe District. The study's objectives included evaluating the effects of ICT hardware, exploring the influence of ICT software, and analyzing the significance of internet connectivity in the management of public secondary schools. A mixed-methods approach was employed, utilizing quantitative and qualitative techniques alongside simple linear regression analysis to gauge the strength, direction, and significance of ICT integration's effects on school administration. Findings revealed that ICT hardware has a strong positive and statistically significant effect on the management of public secondary institutions in Buikwe District. Likewise, ICT software demonstrated a similarly strong positive impact. Moreover, internet connectivity was found to exert a moderate positive influence on the management of these schools. The research underscores that the integration of various ICT components—hardware, software, and internet connectivity is essential for enhancing the administration of public secondary schools in Buikwe District. The study suggests that increasing the use of these technologies will improve management practices. It recommends that government officials and school administrators focus on efficient ICT integration in decision-making processes, as this will significantly enhance the electronic management of critical information such as student records and grades, leading to greater accuracy, accessibility, and ultimately better school management.

**Keywords:** ICT integration, ICT Hardware, ICT Software, ICT Internet connectivity, and Management.

## Introduction

The research aimed to explore how public secondary schools within Buikwe area are managed in relation to Information and Communication Technology, ICT. An empirical vacuum by literature currently available regarding ICT was filled by this study.

### **Historical Perspective**

One of the first nations, according to reports, to incorporate ICT into the administration of several sectors, including the education sector, was the United Kingdom. According to Reeves (1999), radio transmissions from the 1920s and television transmissions from the 1970s are where the history of ICT use in classrooms begins. Gibson and Molan (1974) saw the necessity for ICT integration in the various administrations, including data management, information symmetry, data storage, and data and information processing, in order to improve organizational management.

### **Theoretical Perspective**

The Technological Acceptance Model (TAM), created by Davis in 1989, served as the study's compass. The Technological Acceptance Model was chosen as the theoretical foundation for this study because it offers educators and schools a structured method for creating, implementing, and evaluating technology-enhanced learning experiences that are tailored to the unique requirements and goals of various public secondary schools. The model suggests that users' attitudes towards use of technologies are the significant factor influencing their intentions regarding behavior to use it (Zhou et al., 2021).

### **Contextual Perspective**

This research took place in public secondary schools within Buikwe District., Uganda and this has been selected because limited or no research has been conducted in the district in relation to ICT integration and management of public secondary schools yet they are faced with a lot of institutional challenges which at times may be a major hindrance to their success.

### **Conceptual Perspective**

Hardware, software, networks, and media are employed to gather, store, process, transmit, and present information, encompassing speech, data, text, and pictures), together with associated services, make up information and communications technology integration (ICT) (Perron, 2010). For public secondary schools to operate smoothly, management includes a variety of tasks such as financial, human resource, marketing, and operational management.

### **Statement of the problem**

In Uganda, there are still a lot of unsolved concerns concerning the use of technology in operational, marketing, and human resource management. Among these are the following: What percentage of head teachers utilize ICT for marketing, operational, and human resource management? How many educators have received training in ICT use? How many public schools are able to get consistent, enough power? In the fields of operational, marketing, and human resource management, how many computers are used? Head teachers will be affected by how they respond to these questions. It has been observed that by not integrating ICTs into marketing, operational, and human resource management, schools are missing out on important management concerns. From this perspective, this investigation sought to analyze the degree of ICT integration within public secondary school management and assess the foundational skills and training of school administrators in using ICT. This situation raises concerns about the effectiveness of ICT in management within public secondary schools. Therefore, the focus of this study was exploring incorporating of Information and Communication Technology (ICT) into the administration of public secondary schools

## Study Objectives

### General Objective

The aim of the study was to examine the influence of ICT integration on the management of public secondary schools in Buikwe District

### Specific Objectives

1. To evaluate impact of the ICT Hardware on management of public secondary schools within Buikwe district.
2. To examine the influence of ICT Software on the management of public secondary schools within Buikwe district.
3. To assess effect of ICT Internet connectivity on the management of public secondary schools in Buikwe district.

### Study's hypotheses include;

The specific objectives were formulated based on the following alternative hypotheses;

**Hyp 1:** ICT Hardware have statistically noteworthy impact on the management of public secondary schools in Buikwe district.

**Hyp 2:** ICT Software have statistically significant impact on the administration of public secondary schools Buikwe district.

**Hyp 3:** ICT Internet connectivity have statistically meaningful effect on the management of public secondary schools within Buikwe district.

## Conceptual Framework

The conceptual framework presents an illustrative relationship between ICT Integration and Management.

## ICT Integration and Management

ICT integration profoundly influences school management by enhancing efficiency, improving communication, supporting educational delivery, and fostering a data-driven culture (Magonde, Nhamo & Balume, 2018). ICT tools streamline administrative tasks like attendance tracking, grade recording, scheduling, and reporting generation, reducing manual workload and errors which influences management by improving administrative efficiency in schools (Magonde et al., 2018). Additionally, Lipesa (2018) argued that ICT hardware and digital systems consolidate and store student records, staff information, and administrative data in one accessible platform, improving data retrieval and management which improves human resource management, asset management, and financial resource management in different schools. Similarly, integrated ICT systems optimize the use of resources such as classrooms, equipment, and staff, ensuring efficient allocation and minimizing waste which influences and improves management in schools (Lipesa, 2018).

According to Kirui, Sang, Bett and Manduku (2022) ICT integration through ICT software and platforms like email, messaging apps, and collaboration tools enable efficient communication among staff, teachers, and administrators, fostering a collaborative environment the influences effectiveness and efficiency in different management aspects in the schools. ICT software and tools like school websites, parent portals,

and social media keep parents and the community informed and engaged with school activities and student progress which enhances school operational management (Kirui et al., 2022). In addition, the authors assert that ICT software and platforms such as video conferencing tools facilitate virtual meetings, ensuring continuous communication where in-person meetings are not possible which can enhance and improve operational and human resource management practices at the different schools (Kirui et al., 2022). ICT integration in form of learning management systems such as Moodle, Google Classroom, and Canvas support both in-person and online learning, providing flexibility in instructional delivery. ICT software and digital tools such as e-books and online educational resources enrich the curriculum and provide students with a wide range of learning materials which enhances educational delivery thus influencing operational management in schools (Kirmani, Wani & Saif, 2015). The authors also argue that ICT integration through ICT tools like interactive whiteboards, tablets, and educational software create engaging and interactive learning experiences which enhance teaching and learning. This can effectively influence operational management aspects at the school (Kirmani et al., 2015). Similarly, Lutalo (2020) asserts that through different ICT software, tools, and platforms teachers and staff can access professional development courses, webinars, and training programs which are effective in facilitating and improving human resource management in the schools.

According to Oyier, Odundo, Khavugwi and Wangui (2021) ICT integration through ICT internet connectivity facilitates collaboration and networking among educators, allowing them to share best practices and resources through online communities and professional networks which has a significant influence on professional development and management in schools. Additionally, real-time data tracking systems influence management as they monitor student progress, attendance, and behavior, enabling timely interventions and support which can also improve student performance at the school (Oyier et al., 2021). Shaikh and Khoja (2019) argued that ICT integration helps school leaders analyze performance data, identify trends, and make informed decisions through use of data analytics tools to improve educational outcomes and operational efficiency which influences management in different schools.

A study by Muyengabe, Yiyi, Haiyan and Hitimana (2017) found out that ICT integration has a significant and beneficial impact on management in public high schools in Rwanda. The authors assert that ICT integration facilitates digital asset management through utilization of ICT tools which can enable the tracking and management of school assets, including library equipment, and classroom supplies, ensuring optimal use and maintenance and this influences resource management in the public secondary schools in the country (Muyengabe et al., 2017). The authors also argued that ICT integration through utilization of integrated financial management systems streamline budgeting, payroll, and financial reporting, ensuring transparency and accountability thus influencing management in schools (Muyengabe et al., 2017).

According to Sherwani, Amjad, Muhammad, Marri and Rehman (2021) ICT integration has a significant influence on management in the different educational institutions. The authors argue that ICT integration facilitates accreditation management which is achieved through digital tools like ICT software that support the accreditation process by tracking compliance with required standards and documenting evidence of performance that leads to an improvement in management in the educational institutions (Sherwani et al., 2021). In addition, the authors assert that ICT systems help schools comply with local, state, and federal regulations by managing data related to student safety, privacy, and academic standards which influences management in the educational institutions (Sherwani et al., 2021).

A study by Mwila (2018) examined the influence of ICT integration on management and teaching process in high schools in Kilimanjaro, Tanzania. The research indicated that ICT integration exerts a positive and

significant impact on management and teaching process in secondary schools in Kilimanjaro, Tanzania. The research uncovered that ICT integration through ICT systems with robust security measures protect sensitive student and staff data from unauthorized access and cyber threats which influences and improves data security and management in the schools. The author also asserted that ICT integration through integrated ICT systems ensure compliance with data privacy regulation, safeguarding personal information and this can enhance an improvement in security and privacy management in the different schools (Mwila, 2018).

ICT integration in schools transforms management by automating administrative processes, enhancing communication, supporting effective teaching and learning, enabling data-driven decision-making and fostering a culture of innovation and continuous improvement (Mwiluli, 2018). In addition, the author argued that ICT integration in terms of ICT internet connectivity significantly influences the management of schools by enhancing communication, improving administrative efficiency, supporting educational processes, and facilitating access to resources (Mwiluli, 2018). Similarly, Muia (2021) asserted that through ICT integration schools can maintain regular contact with parents and the community through websites, portals, and social media, keeping them informed about school events, announcements, and student progress which influences effectiveness and efficiency in school management.

According to Oguta, Egessa and Musiega (2019) ICT hardware significantly influence management in the different schools and educational settings. The authors assert that ICT hardware like printers, scanners, and copiers streamline administrative workflows, making processes such as printing student report cards and scanning documents quicker and more efficient which enhances resource allocation thus influencing resource management and utilization in schools and educational institutions (Oguta et al., 2019). Additionally, Mutisya (2017) postulates that ICT hardware such as desktops, laptops, and mobile devices enable efficient communication among teachers, staff, and administrators through email, messaging apps, and internal communication platforms which enhances communication and collaboration thus influencing management in the different schools.

## **Methodology**

### **The Research Design**

The cross sectional survey was employed. Because cross-sectional studies may be completed quickly and affordably due to the short data collecting period, the cross-sectional study design was chosen. Additionally, the researcher utilized mixed qualitative and quantitative approaches. The researcher had capacity in gather information in the quickest amount of time because to the research design. The researcher was able to swiftly and affordably gather data by using a cross-sectional study methodology (Mugenda & Mugenda, 2013). Interacting with the responders allowed for the acquisition of more detailed information. To gather information for the final report, a great deal of observation and note-taking were done throughout respondent meetings and interview sessions.

### **Target Population and Sample Size**

According to the Buikwe district Local Government, the population under study (available population) comprised head teachers as well as a subset of teachers from various public secondary schools. The sample size consisted of 40 respondents, including 8 head teachers from various public schools and 32 instructors overall, of which 4 were chosen from each school. The sample was selected in order to offer comprehensive data, answers, and solutions to the research goals.

### **Sampling**



The researcher utilized both purposive as well as convenient techniques. The purposive approach refers to selecting the sample purposefully/precisely. Purposive sampling was used because it allowed the researcher to handpick certain groups or individuals (head teachers) to acquire an in-depth information about the study phenomenon. Additionally, convenient sampling involves the researcher selecting participants who are readily available and easily accessible and this were employed to select teachers from the different public high schools in Buikwe to participate so as to generate quantitative data.

**Table 1: Population of the Study, Sample Size, and Sampling Methods**

Schools	Categorization	The Sample Size	The Sampling Technique
Lweru Secondary School	Head Teacher	1	Purposive Sampling
	Teachers	4	Convenient Sampling
Sacred heart Najja Secondary School	Head Teacher	1	Purposive Sampling
	Teachers	4	Convenient Sampling
Mgogwe Baskerville Secondary School	Head Teacher	1	Purposive Sampling
	Teachers	4	Convenient Sampling
Namwezi Secondary School	Head Teacher	1	Purposive Sampling
	Teachers	4	Convenient Sampling
St Peters Nkokonjeru	Head Teacher	1	Purposive Sampling
	Teachers	4	Convenient Sampling
3RS Secondary School	Head Teacher	1	Purposive Sampling
	Teachers	4	Convenient Sampling
Nyenga Secondary School Kigudu	Head Teacher	1	Purposive Sampling
	Teachers	4	Convenient Sampling
Victoria Secondary School	Head Teacher	1	Purposive Sampling
	Teachers	4	Convenient Sampling
Total		40	

**Data collection methods**

**Questionnaire Method**

Original data from teachers was collected via self-administered structured surveys. The first part of questionnaire was dedicated to gathering biographical information from the respondents, whereas the second part aimed at gathering information pertinent to the study variables.

The questionnaire was chosen because of its flexibility and its ability to efficiently collect data from numerous participants in a brief timeframe.

**Interview Method**

An interview method involved the use of unstructured questions where the researcher sought to probe for a comprehensive understanding of the research phenomenon. This method allowed the researcher in probing for in-depth information that was generated from key informants’ opinions and views in relation to the study phenomenon.

**Data collection Tools**

**Questionnaire**

This research instrument employed to collect data from study participants. It consists of multiple-choice questions (Robson, 2012). The individuals involved in the research were asked to provide their choices, views, beliefs as well as sentiments regarding the variables under investigation that were being studied through a series of questions and choice answers. Using a questionnaire had the advantages of quickly gathering data from a wide population, producing useful results that were simple to interpret, and protecting the privacy and anonymity of participants.

**Guide for Interview**

A structured interview guide was employed in obtaining qualitative information from the respondents comprised of head teachers from the different public secondary schools in Buikwe district. This comprised of open-ended questions that were asked to head teachers purposively so as to generate in-depth information so as to obtain a clear comprehension of the research study phenomenon as well as complementing the numerical data collected from educators.

**Ethical Consideration**

Authorization to conduct research was sought from Department of Post Graduate Studies Islamic University in Uganda, after which the researcher conducted on-site research to gather the required data. Rights of the respondents were respected and respondents' consent was sought from the respondents by explaining to them how their participation was voluntary and no materialistic benefits were expected from the researcher. During the research process, the respondent's names were kept anonymous and confidentiality of the highest order was maintained by not taking any identifies of participants who took part in the study.

**Data interpretation.**

The quantitative data gathered through questionnaires underwent thorough error checking and outlier identification before being coded and inputted into the Statistical Package for Social Sciences (SPSS) for analysis. The researcher employed both descriptives and inferential statistical methods in their analysis. In the descriptive analysis, frequencies and percentages were employed as well as inferential analysis involved the use of simple linear regression analysis to provide answers to the study objectives and hypotheses. Additionally, content analysis and thematic analysis were adopted to analyze the qualitative data generated from the key informant respondents.

**Research results**

The outcomes detailed in this chapter encompass descriptive statistics on the demographic composition of the respondents and linear regression results.

**Findings on the Demographic Compositions**

The study assessed the demographic makeup of the participants from different selected public secondary schools in Buikwe district and findings are displayed/shown in Table 2.

<b>Level of Education</b>	Diploma	8	25.0
	Degree	20	62.5
	Masters	4	12.5
	<b>Total</b>	<b>32</b>	<b>100.0</b>
<b>Marital Status</b>	Married	21	65.5
	Single	6	18.8
	Divorced	3	9.4
	Widowed	2	6.3
	<b>Total</b>	<b>32</b>	<b>100.0</b>
<b>Work Experience or Period of Stay at the School</b>	1 year	4	12.5
	2-3 years	11	34.4
	4-6 years	15	46.8
	7 years and above	2	6.3
	<b>Total</b>	<b>32</b>	<b>100.0</b>
<b>Do you use ICT</b>	Yes	29	90.6
	No	3	9.4
	<b>Total</b>	<b>32</b>	<b>100.0</b>

**Table 2: Demographic Composition of Respondents**

*Source: Original Data obtained from the Field (2024)*

From Table 2, findings show that a significant majority of the study participants, it comprised of 20 (62.5%) males in comparison to 12 (37.5%) of the respondents who were females. The results also reveal that bigger proportion of the respondents 16 (50.0%) were aged 31-40 years, followed by 12 (37.5%) of survey participants who belonged to the age below 30, while the smallest proportion 4 (12.5%) were above 40 years.

Additionally, the research results indicated that most 20 (62.5%) among the participants had completed a university degree, followed by 8 (25.0%) with a diploma educational attainment, and a least proportion 4 (12.5%) of the participants had achieved a master’s educational attainment. In relation to marital status, majority of the respondents 21 (65.5%) were married, followed by 6 (18.8%) of the survey participants who were single, then 3 (9.4%) of the respondents who were divorced, and a few 2 (6.3%) of the respondents were widowed.

This research further revealed as most of participants 15 (46.8%) had worked with the respective schools for a period of 4-6 years, followed by 11 (34.4%) of the survey participants who had experience

<b>Demographic Composition</b>			
<b>Category</b>	<b>Items</b>	<b>Frequencies(F)</b>	<b>Percentages(%)</b>
<b>Gender</b>	Females	12	37.5
	Males	20	62.5
	<b>Total</b>	<b>32</b>	<b>100.0</b>
<b>Category of age</b>	Below 30years	12	37.5
	31-40years	16	50.0
	Above 40years	4	12.5
	<b>Total</b>	<b>32</b>	<b>100.0</b>



collaborating the respective schools for a duration ranging from 2 to 3 years, then 4 (12.5%) who had experience working alongside the respective schools for a duration of 1 year, and the least proportion 2 (6.3%) participants had experience collaborating the respective schools for a duration of 7 years and above. Lastly, research outcomes indicated that most 29 (90.6%) of survey respondents reported to be using ICT and only 3 (9.4%) of the respondents reported not to be using ICT.

**Findings on the Objectives of the research.**

This segment outlines findings in relation to specific study objectives.

**Impact of ICT-Hardware on Management of the Public Secondary Schools within Buikwe District**

The research aimed to assess ICT Hardware’s impact on management of the public secondary schools within Buikwe district. The results are presented using Basic linear regression analysis below;

**Table 3. Regression findings on ICT Hardware’s impact on management of the public secondary schools within Buikwe district**

Model Summary						
Model	R	R Square	Adjusted R Square		Std. Error of the Estimate	
1	0.593 <sup>a</sup>	0.351	.348		.46692	
a. Predictors: (Constant), ICT Hardware						
Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.363	.199		6.864	.000
	ICT Hardware	.644	.056	.593	11.420	.000
a. Dependent Variable: Management						

*Source: Original data collected in the field (2024)*

Regression findings in accordance to table above indicate how ICT Hardware has a statistically strong beneficial and notable effect on the administration of public secondary schools in Buikwe district ( $\beta=0.593$ , P-value = 0.000) is 5% significance level. Regression findings point out that a unit increase in ICT Hardware significantly results into an improvement in the management of public secondary schools by 59.3%. Results imply that as ICT Hardware increase, it results into an improvement within the administration of public high schools within Buikwe.

This model summary results illustrate how the coefficient of determination (Adjusted R-square) is 0.348, indicating how ICT Hardware explain 34.8% of the total variations in the administration of state-funded high schools while the remaining 65.2% of variations are explained by other factors. This implies that ICT Hardware greatly and significantly influence management of public high schools within Buikwe. Therefore, to improve management there has to be an increased ICT Hardware in public secondary schools within Buikwe.

In regards to ICT Hardware and administration and oversight of public secondary schools within this district, some key informants argued that;

“Real-time monitoring of student attendance, academic performance, and behaviour is made possible by ICT hardware and networking systems. This improves administration of public secondary schools by enabling prompt interventions and assistance.” (Head teacher 02)

“I.T. Automating regular chores like attendance monitoring, report production, and stakeholder communication requires hardware, such as automated tracking systems and gadgets. By relieving staff of administrative burdens, this improves administration of public secondary schools.” (Head teacher 04)

“In order to maintain accountability and security at school, access control systems, surveillance systems, and ICT hardware such as CCTV cameras, electronic locks, and access card systems assist manage and monitor access to various parts of the school.” (Head teacher 01)

“Teachers and administrators may collect and analyse student performance data with the use of ICT hardware devices like tablets, laptops, and specialized data gathering programmes. This facilitates data-driven decision-making and is essential to student performance management in schools. (Head teacher 08)

“Strong internet connectivity is made possible by networking devices like switches, routers, and wireless access points, which facilitate easy communication between educators, parents, and school administration.” (Head teacher 05)

**Influence of ICT Software on Management of the Public Secondary Schools within Buikwe District.**

The investigation also aimed to examine influence of ICT Software on the management of the public secondary schools within Buikwe. **The results are displayed employing simple linear regression analysis detailed in Table 4.**

**Table,4. Regression findings on ICT Software’s influence on the management of public secondary schools within Buikwe district**

Model Summary						
Model	R	R Squared	Adjusted R Square		Std. Error of the Estimate	
1	0.637 <sup>a</sup>	0.405	.386		.47331	
a. Predictor: (Constant), ICT Software						
Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.952	.595		1.602	.000
	ICT Software	.744	.165	.637	4.522	.000
a. Dependent Variable: Management						

Source: Original data gathered from fieldwork (2024).

Regression findings above reveal how ICT Software have a statistically strong significant and favorable effect on the administration of public secondary schools in Buikwe district ( $\beta=0.637$ , P-value = 0.000) is 5% significance level. The regression findings proved that a unit increase in ICT Software significantly results into an improvement within administration of public secondary schools by 63.7%. The results imply that as ICT Software increase, it results into an improvement in management of public secondary schools within Buikwe district.

Model summary portrayed that coefficient of the determination (Adjusted R-square) was 0.386, which indicates that ICT Software explain 38.6% of the total variations in oversight of public secondary institutions while remaining 61.4% of the variations are explained by other factors. This implies that ICT Software vastly and significantly influence management of public high schools within Buikwe district. Therefore, for improved management there must be an increased ICT Software within Buikwe district’s public secondary schools.

In accordance to ICT Software and administration of the public secondary schools in Buikwe, some key informants had this to say;

*“I.T. Emails, messaging applications, and school management systems are examples of software tools that improve communication between teachers, students, parents, and administrators. By simplifying communication and assuring timely information flow, these tools have a substantial impact on public secondary school administration.” (Head teacher 01)*

*“...Parent portals, which provide frequent updates on student progress and encourage more family engagement in education, are examples of ICT software or platforms that enhance parent-teacher contact and enhance school operation management.” (Head teacher 03)*

*“Accounting, payroll, and budgeting are all handled by school management software, which promotes financial responsibility and transparency and enhances both financial and human resource management in the many public schools.” (Head teacher 06)*

*“By guaranteeing effective resource utilization and reducing losses in schools, inventory management software helps track and manage educational materials including textbooks, lab equipment, and digital gadgets. This improves resource management.” (Head teacher 02)*

**Effect of ICT Internet Connectivity on Management of Public Secondary Schools within Buikwe district**

The investigation further aimed to evaluate impact of ICT Internet connectivity on the administration of public secondary schools in Buikwe district. The discoveries are presented using outcomes of simple linear regression analysis are outlined in Table 5.

**Table 5: Regression results on the impact of ICT internet connectivity on the administration of public secondary schools in Buikwe district**

Model Summary						
Model	R	R-square	Adjusted R-Square	Std. Error of the Estimate		
1	0.464 <sup>a</sup>	0.215	.189	.54372		
a. Predictors: (Constant), ICT Internet Connectivity						
Co-efficients <sup>a</sup>						
Model		Unstandardized Co-efficients		Standardized Co-efficients	t	Sign.
		B	Std. Error	Beta		
1	(Constant)	2.018	.565		3.572	.001
	ICT Internet Connectivity	.467	.163	.464	2.869	.000
a. Dependent variable: Management						

*Source: Original data gathered from fieldwork (2024)*

Regression findings indicate how ICT Internet connectivity has a moderately beneficial and statistically notable effect on management of public secondary schools in Buikwe district ( $\beta=0.464$ , P-value = 0.000) is 5% significance level. The regression findings reveal that a unit increase in ICT Internet connectivity significantly results into an improvement in the administration of public secondary institutions by 46.4%. Results imply that as ICT Internet connectivity increases, it results into an improvement in administration of public secondary schools located in Buikwe.

Model summary findings suggest that Adjusted R-square value was 0.189 indicating how ICT Internet connectivity explain 18.9% of the total variations in administration and oversight of public secondary institutions whereas remaining 81.1% of variations are explained by other factors. This implies that ICT Internet connectivity slightly but significantly affects management of public high schools within Buikwe district. Therefore, for an improved management there must be an increase in ICT Internet connectivity in public high schools within Buikwe

Regarding ICT internet connectivity and administration with oversight of public secondary institutions within the district, some key informants argued that;

*“Through the use of cloud-based school administration systems, which centralize administrative duties like scheduling, grading, and attendance, internet access helps schools to operate more efficiently and with less paperwork.” (Head teacher 08)*

*“Access to an abundance of digital learning materials, such as e-books, instructional videos, and online courses, is made possible by ICT internet connectivity. These tools improve the learning experience, which is crucial for raising student and teacher performance management results in schools.” (Head teacher 05)*

*“Internet-connected ICTs make it simpler to measure and report on numerous indicators, improve transparency in school operations, and hold staff and students accountable for their actions—all of which contribute to better human resource management.” (Head teacher 02)*

*“By using websites and social media to be active online, schools may engage the community and keep them updated about events and accomplishments at the school. This is made possible by ICT internet access.” (Head teacher 07)*

## Conclusions

The study concludes that information and communication technology integration in guise of ICT physical equipment, ICT computer programs as well as ICT Internet connectivity has a considerable impact on the management of public secondary schools Buikwe district in that an increase in the different forms of ICT Integration will also result into an improvement in overseeing administration of public secondary schools within Buikwe district.

## Recommendations

Research recommended government and public secondary school administrators TO ensure efficiency in the integration of ICT in the administration as it plays significant participation in regard to electronic storage and management of student records, grades, and other critical information which improves accuracy and accessibility, facilitating better decision-making thus an improvement in administration of public secondary schools in Buikwe district

Finally, the research recommends that school administrators can generally hold a positive view regarding utilization and integrating ICT within human resource management, marketing management and operational management.

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