



EVALUATING THE USE OF ICTS IN SECONDARY SCHOOL ADMINISTRATION IN CAMEROON: THE CASE OF SOME SECONDARY SCHOOLS IN THE BUEA MUNICIPALITY

Dr. Njouny Monjong Emmanuel

Head of Service in Charge of Materials and Maintenance,

Faculty of Education, Assistant Lecturer

Faculty of Education, University of Buea;

Corresponding author: *Dr. Njouny Monjong Emmanuel
Tel.: +237677412516 Email: njouny.emmanuel@ubuea.cm

ABSTRACT

This paper presents the results of a study carried out on some secondary schools in the Buea municipality, Republic of Cameroon. The said study aimed at analyzing and evaluating the use of ICTs by principals in the Cameroonian school system in the administration of their schools. More precisely, it sought to identify the types of ICTs used by principals and how they use them in human resource administration, the administration of physical resources and the administration of financial resources. The study made use of the case study survey research design, and was done in four government secondary schools in Buea. In order to obtain reliable data, a triangulation of data collection instruments was used – a close ended questionnaire and an observation checklist. The questionnaire was addressed to the principal of the school, who is the chief executive and was therefore considered to be qualified enough to provide reliable information about the use of ICT in administration in the school. The study concluded that there is average available of information and communication technology tools in public secondary schools in Buea. Additionally, there is average usage of ICT tools in human resource administration, administration of physical resources in the school and administration of financial resources.

KEYWORDS

ICTs; Administration; Secondary schools; Cameroonian schools;



INTRODUCTION

The information and communication technologies (ICTs), as can be observed elsewhere, have touched and influenced the life of people. In fact, they have imposed their presence into the human daily life so much so that the latter cannot function without them. They are present in communication, finance, health sciences, music, cinema, architecture, cuisine, sport and education, to name just a few domains (Ngoungouo, 2017). As mentioned above, this revolution touches the domain of education, especially educational administration, which is the centre of this work. School administration is a key determinant for the realization of desired outcomes and success in both public and private schools hence is seen as critical by all stakeholders. Gray and Smith (2007) observe that the twenty-first century principal administrator faces numerous challenges emanating from the technology. Information and Communication Technologies (ICT) are increasingly used and viewed as important in all spheres of operation including education. This requires effective and dynamic school administration. Jeilani (2020) opines that school managers around the world today are directing the problems concern about school data warehousing and collecting than they were even a few years ago. Since schools are utilizing information and communication technology (ICT) around the world, not only improving academic efficiency, but also for providing better stakeholder service.

Information and Communication Technology (ICT) has been defined by various scholars from different perspectives. Mueen, Asadullah, Raed, and Jamshed (2013), defined ICT to include electronic network-embodying complex hardware and software-linked by a vast array of technical protocol. Ufuophu and Agobami (2012), observe that the ICTs include internet, satellite, cable data transmission and computer assisted equipment. ICT, however are facilities, tools or resources that could be used to process, store, preserve, access, retrieve and disseminate information with ease. It could be seen as the engine for growth and tool for empowerment, with profound implications for education, change and socio-economic development.

In the context of this study, the term "ICT" refers to a wide range of computerized information and communication technologies. These technologies include products and services such as desktop computers, laptops, handheld devices, wired or wireless intranet, business productivity software such as text editor and spreadsheet, enterprise software, data storage and security, network security and others (Ashrafi & Murtaza, 2008).

Since 2001, when Information and communication technologies were officially introduced into education in Cameroon by the president, their utilization in secondary schools has witnessed a tremendous increase over the past decade. Today, ICTs do not only form an integral part of secondary schools' curricula, and aid teachers in the performance of their duties, but have also been incorporated into almost every process within the Administrative, pedagogic, financial and social functions of the educational administrator. This study was aimed at investigating the use of ICT in secondary school administration in the Buea Municipality, with focus on the use of ICTs in Human resource administration, the administration of physical resources, and in financial administration.

SITUATING THE STUDY WITH EXISTING LITERATURE

The integration of ICT in the secondary education is a national policy across many countries, including Cameroon. According to Nagie and Ngo (2016), private efforts were made between 1998 and 1999 in private and mission schools like College François Xavier Vogt to use ICTs in education whereas it was in 2001 that they were introduced in public schools in Cameroon. In secondary schools, they were actually introduced in 1998 but only became operational four years later with the setting up of the general inspectorate in charge of Computer Science (Fouda et al., 2013). It was later in February 2001 that the President of the Republic called for the orientation of education toward the knowledge economy in his address to the Cameroon youths (République du Cameroun cited in Mbangwana 2008). This led to the official introduction of ICTs in general and technical secondary schools and since then many schools have been receiving presidential grants in the form of Multimedia Resource Centres with Internet connection (Mbangwana 2008).

Government involvement in the area of ICTs seriously began with the development of the policy document and the general strategy for the integration of ICTs in all sectors by the National Agency of ICTs (ANTIC) and the setting up of Multimedia Resource Centres in some primary and secondary schools (Government Bilingual High school Yaounde, Lycée Général Leclerc, Yaounde and Government Bilingual High School, Joss, Douala), and some primary schools like École des "Champions" of the Chantal Biya Foundation. By 2003, official ICT programmes for secondary schools were conceived (ERNWACA-Cameroon, 2005) and ICT syllabuses and National Sequential Schemes of work published in 2008 were made available to Nursery, Primary and Teacher Training Education. Textbooks have also been written and validated by the National Book Commission to facilitate the teaching of ICTs (République, 2007a cited in Mbangwana 2008). République also made mention of the draft strategy to implement the national ICT policy in basic education which was applicable from 2007- 2015 that was developed in 2007.

The strategy targeted at training teachers and head teachers in the importance and how to use ICTs in teaching and learning as well as in school administration. Based on training objectives, national guidelines were also included in the teaching of ICTs in preschool and primary schools. The guidelines were based on six modules for each level including the skills to develop which were: the discovery and presentation skills, application skills, knowledge construction skills, health and safety issues related to ethics and equity (République, 2007). Due to the lack of teaching staff, infrastructure and finance, the State went into a partnership with private contractors and Parent/Teacher Associations (PTA) in 2005 to supply computer equipment and the provision of finance respectively (Fouda et al. 2013).

In 2007, the field of Computer Science and Educational Technologies was established at the Higher Teacher Training College (HTTC) Yaounde (Centre Region) to train general secondary school ICT and Computer Science teachers. The following year, a similar field was established at the Higher Teacher Training College, Maroua (Far North Region). In 2009, an information management system was set up at the Higher Teacher Training College, Bamenda (North West Region) to train technical secondary school teachers. This led to the institution of Information Technology as a school subject in January 2011, which entered into force

in February of the same year; IT was introduced as a compulsory subject in all MINESEC official examinations. Apart from government initiatives, non-governmental organizations like ADCOME have also contributed at regional levels to bridge the digital divide in secondary schools in the southwest region of the country through their CIAC project (Computer and Internet Access Centres). Nganji, et al. (2010) says ADCOME's initial objective was to bring internet closer to the people at low cost in 2000. In 2001, motivated by the achievement of this objective, it further launched the CIAC project to install computers and internet as well as providing training for teachers in secondary schools with the first pilot school being the Baptist High School Buea.

From the foregoing, it is obvious that most of the initiatives carried out in the country so far have not been largely successful. However, they are promising. Despite apparent challenges such as connecting more Cameroon schools to a nationwide network and the Internet, providing schools with technological resources, training more teachers and financing ICT integration projects, there exist success stories like that of "Les Champions FCB", a remote school in Memiam situated in the Centre Region which can boast that all students are provided with computers (Karsenti et al., 2012); the setting up of SIGIPES (Système Intégré de Gestion Informatisée du Personnel de L'État et de La Solde) which means an Integrated Computerized State Personnel and Payroll Management System handles personnel and payroll data, an online registration system for the competitive entrance examination into the Higher Teacher Training College and the online registration of both old and new students at the university of Yaounde I has been operational since 2011 and 2012 respectively. Multimedia Resource Centres (MRC) have been setup in universities and professional schools and in some public secondary schools; the training of monitors who manage the MRCs, the creation of platforms for learning; the interconnection of the eight state universities and the establishment of training departments in professional schools and universities and most are now operational (2007). What is most promising is the continuous training of teachers both in the use of ICTs in teaching as a tool and as a discipline in the various Teacher Training Colleges.

According to Condie and Munro (2007), there is enough evidence to suggest that ICT has the potential to impact on every aspect of the school activities. These authors concluded that schools cannot remain as mere venues in the fast-growing technological transformation. Therefore, they must promote an effective use of ICT in order to promote new ways of teaching and learning, information management, professional development and creativity. Additionally, according to Bamidele (2015) various scholars identified that the Information administration is one part of overall administration of education institutions which mainly covers general and day-to-day operational activities. Developing a set of ICT based practices to capture new knowledge, configure and store them in various formats, disseminate them in effective ways for quick grasping, and apply knowledge in more innovative ways would improve services and outcomes of schools in diverse aspects. Specially, it would help students to reach their full potential. The following sub sections review the use and impact of ICT in school administration, and barriers or challenges towards integrating ICT in schools administration.

Use and Impact of ICT in School Administration

ICT in school administration refers to the use of technologies to collect, process, store, display, transmit, share or exchange information by electronic means, in the processes of planning, organizing, directing, controlling and coordinating the human, material and financial resources of the school towards the achievement of its goals and objectives. Jeilani (2020) posited that Information administration cycle includes three major components namely: Student administration, staff administration, and general administration.

According to Jeilani, student administration is an important and integral part of information administration. This involves various activities commencing from the admission process to learning activities till processing of results and performance analysis. This includes admission enquiry by students, applying for admissions through electronic media, registration/enrolment using computers, course allotment, and availability of information like timetable/class schedule in electronic form and attendance monitoring/maintenance through e-media, Staff administration includes recruitment and work allotment of faculty and staff in the institution, their attendance and leave management, and performance appraisal this also includes relevant communication to and from the institutions and among peers. Staff administration done through Information and communication technology (ICT) helps in processing of voluminous records in a quick, meticulous, and impeccable manner thereby making data retrieval easier (Thomas, 2004). A very important part of Information administration is general administration of school management system which includes the various day-to-day activities of the entire system.

In general, a good communication system should also be in place for the overall effectiveness of administration. ICT should help help in providing a good communication system in secondary education system (Magni, 2009), and ICT helps in providing timely information to all concerned. In institutional setting therefore, administration has been extended as a service activity or tool through which the fundamental objectives of the institutional process may be more optimized efficiently when allocating human and material resources as well as to make the best use of existing resources (Liverpool & Jacinta, 2013)

Salerno (2009) identified various ways of introducing technology in education institution administration. These ways include the following:

- Sending e-mail notices and agendas to staff, rather than printing and distributing them.
- Submission of lesson plans through e-mail
- Foster technology growth by asking parents to write e-mail addresses on medical forms.
- Insist that all teachers create a class Web page
- Attend technology conferences to see what other schools are doing, what other teachers are doing to integrate technology, and what principals are doing to encourage the use of technology in their schools and classrooms.
- Admissions through web-enabled services.
- All day-to-day activities of the institution (General Administration)
- Staff administration

Liverpool and Jacinta (2013) stated that ICT can be used in institutional administration through the following ways organization of information, computation and processing of paper work, enhancement of effective communication, enhancement of planning, and improvement of monitoring and managed instruction.

Organization of Information: Institution administrators need to have basic information on students and teacher flows. For example, categories data on student/staff by sex, level, place of origin, performance in schools etc. They could use Microsoft Access or Excel to organize data into an easily accessible format and can be easily stored and retrieved from the microcomputer.

Computation and Processing of Paper Work: ICT are used to map out different activities of the academic session such as number of weeks for teaching, conducting of continuous assessment tests, examination periods and when the result could be released to students. Others activities such as stipulated time for teaching practice and student industrial work experience scheme (SIWES). Institutional administrator could use Microsoft Access, Excel or other simple applications to collect and keeps records of events, enhancement of effective happening in the institution, issues out notices of meeting for staff, students and parents.

Enhancement of Effective Communication: With the installation of computers and internets communication made it easier for the institutional administrator to use telephone, fax and other communication facilities for transforming thoughts, sharing and imparting of information, growing and receiving and understanding of message within a network of independent relationship across international frontiers.

Enhancement of Planning: Institutional administrator could use ICT to plan and make decisions on the basis of accurate and readily available facts. ICT could be used to plan the budgets of the college expenditure and plans for replacement of both obsolete and repairs of broken down equipment or institutional facilities.

Improvement of Monitoring: Institutional administrator's use microcomputers in monitoring various areas in the institutional system, such as the uses of continuous monitoring and assessment of students learning and achievement in the institution. Campbell and Sellburn (2002) pointed out that ICT can be valuable for storing and analyzing data on education indicators, students assessments, human and material resources and cost and finance.

Managed Instruction: This is an approach by the institutional administrators to use computer in scheduling courses/subjects, space, installation, inventory and personnel control, recording and reporting attendance, school accounting, storage and retrieval of student information marks management. This is capable of generating the demographic data of students and institutional staff, production of results online.

Challenges/barriers Facing the Use of ICT in Secondary School Administration

Although the use of ICT in education has been a priority in most countries from the last decade, considerable barriers still exist. Some schools in some countries have integrated ICT into the curriculum and have transformed teaching and learning with the use of innovative technologies. However, most schools across the world are still in the early stage in adopting ICT and no records for significant improvements due to considerable barriers (Becta, 2005). Therefore, in order to make realistic and holistic solutions for the issues, factors that prevent the full use of ICT in schools must be clearly identified. Balanskat et al. (2006) has divided the perceived barriers in schools into three broader categories: teacher level barriers, school level barriers, and system level barriers. The teacher level barriers incorporate factors related to teachers' attitudes and approach to ICT such as lack of ICT skills, lack of motivation and confidence on ICT, and inappropriate teacher training. School level barriers include those related to the institutional context such as the absence and/or poor quality of ICT infrastructure, limited access to ICT equipment, school's limited project-related experience, lack of experience in project-based learning, and absence of ICT mainstreaming into schools' strategies. The system level barriers are those related to the wider educational framework which mainly focuses on the rigid structure of the traditional schooling system. It is commonly accepted that the effective use of ICT requires more than just the technology and competent teachers. Newhouse (2002) pointed out essential conditions for the effective implementation of ICT. Some of the most significant conditions are: proactive leadership, technical assistance, financial support, culture, policies and procedures, training and support, and provision of hardware and software infrastructure.

According to Ministry of Information and Communication, Kenya (2006), the National ICT Policy in Kenya seemingly focused on teaching and learning and not administration thus; "the government will encourage...the use of ICT in schools, colleges, universities and other educational institutions in the country so as to improve the quality of teaching and learning."(p.10). There are a number of challenges concerning access to and use of ICT in Kenya; reported the Ministry of communication. These included high levels of poverty, limited rural electrification, and frequent power disruptions.

According to a study done by Menjo and Boit (2012), Nandi North District on 'The challenges of using information communication technology (ICT) in school administration in Kenya'; it was revealed that major challenges faced were: lack of adequate training in ICT for teachers and administrators, limited computer hardware dedicated to administrative work, lack of time on computer and absence of appropriate administrative software. The challenges are not only limited to Kenya schools, but also most schools in developing countries like Cameroon. These challenges have been discussed below:

Availability of Hardware and Software

According to Said (2007), lack of an overall technology plan, coupled with the short-term funding model and the absence of a clear acquisition and replacement plan, leads to 'an inconsistent and unproductive approach to IT acquisition and implementation. Laaria (2013) argues that the cost of possession of ICT including hardware, software, upgrading and maintenance remains high, this is in agreement with Farrell (2007) who

concludes that the cost of acquisition and maintenance of ICT infrastructure is a challenge and has continued to hamper adoption and implementation of ICT in Schools.

Inadequate Basic Facilities and Technology Planning

This refers to the basic facilities and the mechanical and electrical installations found in schools. Many schools, especially in developing countries, are faced with this grave challenge, hence hindering the planning and implementation of effective technology use. These form the foundation for proposed technology upgrades, wiring of the physical plant, networking and telecommunication systems.

Some obstacles which have hindered effective technology planning and implementation in American schools and classroom which are even worse and typical characteristic facing developing countries as follows:

- i. The inability to properly finance a successful technology infrastructure to bring computers into the classroom.
- ii. Inability to provide line and internet services due to the distance from internet service providers due to poor networking capabilities, and cost of fibre – optic cables.
- iii. Lack of up-to-date hardware, courseware, support materials and software, hence frustrating teachers and students.
- iv. The existence of multiple platforms (Apples& PCs) makes transferring and coordinating technological efforts complicated.
- v. Lack of interchangeable parts of computer accessories and peripherals-difficult to upgrade and interchange components.
- vi. Rapid changing technology has created backlog of out dated and un-recycled equipment [e-waste].
- vii. Leadership barrier to technology infrastructure development.
- viii. Lack of maintenance and service capability.
- ix. Traditional focus for technology toward school computer labs.
- x. Lack of staff training and in-service opportunities.

The Cost of ICT Equipment

Maki (2008), observed that implementing ICT in educational administration and management costs a lot of money and time. As a result, many administrators might be discouraged to budget or purchase ICT equipment and some give up completely! It requires thorough innovative planning and empirical study -thinking outside the box to realize its use. She further affirms that, “ICT implementation in schools for both managerial and education reasons, presupposes the preparation of school context in order to easily accept and adopt the change.”(Maki, 2008)

Methodology

The study was carried out in four public secondary schools in the Buea Municipality, namely Government Technical High School (GTHS) Molyko, Bilingual Grammar School (BGS) Molyko, Government High

School (GHS) Buea Town and Government High School (GHS) Bokwango. These schools are situated in Buea, in Fako Division, South West Region of Cameroon. Limbe is Capital of Fako Division. The Bakweri Clan forms the major ethnic indigenous group of people in Fako. The Climate of Fako has two seasons; the rainy season that runs from March to November, with torrential rains in July and August and Dry Season from December to February. Buea is situated at the foot of Mount Fako, with a population of an estimated population density of 54.38 per sq. Km as reported in 2001 by National Institute of Statistics.

The study made use of the case study survey research design, carried out in four main schools. In order to obtain reliable data, a triangulation of data collection instruments was used – a close ended questionnaire and an observation checklist. The questionnaire was addressed to the principals of the school, who are the chief executive and were therefore considered to be qualified enough to provide reliable information about the use of ICT in administration in the schools. The questionnaire was made up of the main sections. The first section was a cover letter that introduced the purpose of the study and assured the respondents of confidentiality concerns. It also addressed demographic issues such as gender of respondents, administrative position, and longevity in service as principal.

The second section of the questionnaire contained closed – ended questionnaire items, structured following a four – point Likert scale response option, ranging from strongly agree, agree, and disagree to strongly disagree. The questionnaire items were constructed to address three main concerns, namely ICT in Human Resource Management (15 items), ICT in Administration of Physical Resources in the school (8 items) and ICT in Administration of Financial Resources (8 items). The observation checklist was designed to verify the availability of ICT tools/software in GTHSMolyko. The data collected were analyzed using frequency counts and percentages with respect to the responses as per the main variables.

Findings

In this section, the findings have been presented beginning with the demographic information of the respondents and the responses according to the main variables which are ICT in human resource administration, ICT in administration of physical resources in the school and ICT in Administration of Financial Resources.

Table 1

Demographic information of the principals

Gender	Frequencies	Percentages
Males	01	25
Females	03	75
Longevity in service	0 – 5yrs	-
	6 – 10yrs	1
	11 – 15yrs	2
	16yrs and above	1

With respect to demographic information, three of respondents were all females, and just a male. Additionally, all the respondents had some degree of secondary school administration since all of them have been principals for at least 6 years and above.

Additionally, the results from the observation checklist concerning the availability of ICT tools were also presented.

Table 2
Table presenting the number of available ICT tools in the school

SN	ICT Tools	Available (Yes or No)	Number Available
1	Desktop computers	Yes	30
2	Laptops	Yes	03
3	Tablets	No	-
4	Telephone (Fixed phones)	Yes	04
5	Smart Phones	Yes	01
6	Projectors	Yes	01
7	Printers	Yes	06
8	Barcode scanners	No	-
9	Biometric attendance device	No	-
10	Internet/WIFI	Yes	-
11	Asset Management Software	No	-
12	Software for processing results	Yes	-

As can be seen on table 2 above, a number of ICT tools are available in GTHS Molyko, such as Desktop computers, laptops, telephones, printers and projector.

With respect to the main variables which are ICT in human resource administration, ICT in administration of physical resources in the school and ICT in Administration of Financial Resources, the following results were recorded.

Table 3
ICT in Human Resource Administration

SN	QUESTIONNAIRE ITEMS	SA	A	D	SD	Means
1	Students apply for admission into the school using an electronic media				√	0.25
2	My school uses computers to facilitate students' registration			√		0.5
3	In my school, school and class time tables are available to students in electronic forms		√			0.75
4	Computers are used in my school to maintain students' attendance		√			0.75
5	We often communicate academic details of students to their parents/guardians through Electronic media			√		0.5
6	There are facilities in my school for students to make fee payments electronically	√				1
7	Job vacancies for recruitment of workers are often advertised using computers or e-media				√	0.25

8	Electronic media is used in my school for performance appraisal of staff (both academic and support staff)	√				0.75
9	I usually communicate with my teachers using the electronic media	√				1
10	I use the electronic media in leave management of staff in my school		√			0.5
11	Electronic circulars are sent from my institution regarding official matters	√				1
12	I use videoconferencing to supervise teachers' teaching activities		√			0.5
13	I use WhatsApp I to supervise teachers' teaching activities		√			0.5
14	I often communicate with teachers using electronic mails with respect to the teaching assignments	√				1
15	There is a biometric machine in my school used to check staff attendance and punctuality (that is, teachers do not sign manually into a punctuality register, but rather scan into an electronic attendance register)		√			0.5
Mean						2.46

The mean for the individual items was calculated on a scale of 1, and that for the entire objective on a scale of 4. As the been seen on table 3 above, it was observed that of all the 15 items designed to verify the principal's use of ICT in Human Resource Administration, just seven (07) of the items received positive responses (strongly agreed or Disagreed), giving a mean response value of 2.46, which is quite low. However, there were certain areas whereby ICT was very much used in human resource management such as students paying fees electronically, communicating with teachers using electronic media, sending electronic circulars regarding official matters and communicating with teachers using electronic mails.

Table 4
ICT in Administration of Physical Resources in the school

SN	QUESTIONNAIRE ITEMS	SA	A	D	SD	Mean
1	Computers are used in my school to monitor the ratio of which facilities are being utilized in the school			√		0.5
2	In my school, computers are used to know whether adequate resources are available in school		√			0.75
3	Computers are used to register the number of desks that are available in my school		√			0.75
4	When items are bought in the food and nutrition laboratory, they are usually registered using a computer			√		0.5
5	All sports facilities bought in my school are registered using a computer			√		0.5

6	Textbooks and other didactic materials bought in school are recorded in a computer.	√	0.75
7	All items in the multimedia room are referenced and registered in a computer	√	1
8	There is a software that manages the assets of the school (e.g the number of boxes of chalk bought, number used, number left, etc)	√	0.5
Mean			2.63

Table 4 above shows the responses made by the respondent to items verifying the principal's use of ICT in the administration of physical resources in the school. Also, it shows the means for the individual items which was calculated on a scale of 1, and that for the entire objective on a scale of 4. The mean for the overall objective was 2.63, which is fairly above the average mean of 2. With respect to the use of ICT in physical resource administration, it was observed that the principal agreed to the fact that computers are used to check whether adequate resources are available in school, as well as the use of computers in registering the number of available desks in school. Similarly, textbooks and other didactic materials bought in the school are recorded in a computer, and all items in the multimedia rom are registered and referenced in a computer.

Table 4 above shows the responses made by the respondent to items verifying the principal's use of ICT in the administration of physical resources in the school. Also, it shows the means for the individual items which was calculated on a scale of 1, and that for the entire objective on a scale of 4. The mean for the overall objective was 2.63, which is fairly above the average mean of 2. With respect to the use of ICT in physical resource administration, it was observed that the principal agreed to the fact that computers are used to check whether adequate resources are available in school, as well as the use of computers in registering the number of available desks in school. Similarly, textbooks and other didactic materials bought in the school are recorded in a computer, and all items in the multimedia rom are registered and referenced in a computer.

Table 5
ICT in Administration of Financial Resources

SN	QUESTIONNAIRE ITEMS	SA	A	D	SD	Mean
1	There are facilities in my school for students to make fee payments electronically	√				1
2	Electronic media is used in my school to pay the salaries of auxiliary staff			√		0.5
3	We use the e-media to make orders for school supply			√		0.5
4	I have a software for managing school finances in my school		√			0.75
5	There is a software that takes care of relevant revenue and expenditure data in my school		√			0.75
6	I use computer in my school to keep school financial records			√		0.5

7	The use of computers in my school in keeping school financial record helps in accountability	√	0.5
8	We make use of computer in my school in the management of cash flow	√	0.5
Mean			2.50

Table 5 above shows the responses made by the respondent to items verifying the principal’s use of ICT in the administration of financial resources in the school. Also, it shows the means for the individual items which was calculated on a scale of 1, and that for the entire objective on a scale of 4. The mean for the overall objective was 2.50, which is fairly above the average mean of 2. It was observed that school fees are paid electronically by students. Similarly, there existed software for managing school finances such as in managing relevant revenue and expenditure data and in the management of cash flow in the school.

Conclusions

Based on the analysis of data collected, the study concludes that there is average available of information and communication technology tools in secondary schools in the Buea Municipality. Additionally, there is average usage of ICT tools in human resource administration. In this domain, ICT was very much used in human resource management such as in students paying fees electronically, communicating with teachers using electronic media, sending electronic circulars regarding official matters and communicating with teachers using electronic mails.

With respect to the use of ICT in physical resource administration, it was observed that computers are used to check whether adequate resources are available in school, as well as the use of computers in registering the number of available desks in school. Similarly, textbooks and other didactic materials bought in the school are recorded in a computer, and all items in the multimedia rom are registered and referenced in a computer. Additionally, as far as financial management is concerned, was observed that school fees are paid electronically by students. Similarly, there existed software for managing school finances such as in managing relevant revenue and expenditure data and in the management of cash flow in the school.

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