

# The Impact of Principals use of Information and Communication Technologies (ICTS) in Effective Administration in Public Secondary Schools in Fako Division

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## ABSTRACT

This study sought to examine the principals' use of Information and Communication Technologies (ICTs) in effective administration in Public Secondary Schools in Fako Division. A quantitative research approach was applied to conduct this study and a structured questionnaire was used to collect data from 100 principals and vice principals in 40 secondary schools in Fako Division. The study sought to identify examine principals use of ICTs in effective administrative planning, organizing, controlling, implementing and monitoring activities which were the main aspects of effective administration considered in this study. The findings of this study revealed that most principals in Public Secondary Schools in Fako use ICTs - phones, computers, printers, internet, and radio, television and photocopy machines in administrative duties which these tools ease duties in different ways. ICTs has the potential in terms of time saving, accuracy, legibility, data storage, record check, and amenable for further references, comparative statements, task calculations, and preparation of report of school activities and performances as those principal the indicated frequent and high used ICTs also indicated a more efficient administrative planning, organizing, controlling, implementing and monitoring activities in their schools. Thus, the statistical test indicated that there is significant positive association between the use of ITC and effective administration in public secondary schools Fako as such it is recommended that principal should improve their level of proficiency in the use of this efficiency.

**Keywords:** *Principal, Information and Communication Technologies, Effective Administration Public Secondary Schools*

## INTRODUCTION

Many communities in the world today look up to schools for the nurturing of those innovative ideas which transform the technological, economic, political and social dimensions of peoples' lives towards development (UNESCO, 2005). The increasing use of modern technologies in education has revolutionized the educational enterprise. The application of technology in education has been given many names such as instructional technology, assistive technology, information and communication technology, e-learning, e-teaching, distance education and e-administration (Molindo 2014). All these names have a goal to improve the quality of teaching, learning and administration process in schools.

For several decades, educational technology had concentrated exclusively on the use of technology such as calculators in solving mathematics and related problems, videotaping experiments and lectures, storing and using digital photos for a project, using mobile phones to facilitate distance learning and teaching, etc. (Molindo,2014). ICTs have also greatly impacted many fields in the economy such as health care, entertainment, communication, the military and business. As such, the benefits of using modern educational technologies are not only limited to the classroom because they greatly benefit other aspects development.

Information and communication technologies (ICTs) are simply technologies arising from scientific and technological progress in computer sciences, electronics and telecommunications. They enable us to process, store, retrieve and disseminate valuable information in text, sound and video form. In an increasing interconnected world, brought about by the application of technological advances

to all sectors of society, quality education necessitates active and innovative exploration to maximize the benefits of ICTs and develop and maintain the partnerships that use of ICTs in education requires. This calls for re-conceptualising and restructuring the educational enterprise, so as to confront the technological challenges of this millennium. With rapid changes within society and radical transformations in the way people acquire knowledge, new teaching paradigms are required, ones that tune educational systems to modern times and ensure quality training for large numbers of persons which enables the need for effective administration.

Molindo (2014), ICTs is an umbrella term that includes many communication devices or applications, encompassing: radio, photocopier, fax, recorder, scanner, printer, digital camera, television, cellular and fixed phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them like video-conferencing, teleconferencing, text messaging, distance learning, e-mailing, e-banking, e-business, e-registration, e-government, e-administration, on-line gaming, PowerPoint presentations, skype, facebook, wikipedia and twitter. This is the world in which our students live and work.

Technologies evolved from the quest for faster and easier management of enormous information available to users. Thus, an ICT is very essential for the generation of quality information and management of that information is required for effective decision making. ICT components include as identified by Ayeni (2004) prints media, electronic media, telephone, telex, e-mail, fax and computers. This ICT embodies both hardware and software. The rapid growth of

Information and Communication Technology has brought notable changes in the twenty first century as well as affected the demands of modern societies. ICT is becoming increasingly important in our day to day lives and the educational system not left behind. As such, there is a growing demand on the educational institutions to integrate ICT in teaching the skills and knowledge students need for the 21<sup>st</sup> century. Realizing the effect of ICT on the work place and everyday life, today educational institutions try to restructure their educational administration in order to bridge the existing technological gap in school administration. This restructuring process requires effective use of technologies by administrators in order to enhance professional output as well as the general administration of the school (Buabeng, 2012).

Many studies highlight the various ways in which ICTs may support teaching and learning. The benefits that ICTs brings into teaching and learning include creating new opportunities for effective knowledge assimilation by students, making education cheaper and easier, bringing about better learning outcomes, and presenting multiple teaching and learning opportunities (Caves et al, 2009; UNESCO, 2007) and also enabling effective administration. The significance of ICTs in improving the quality of and access to education has been recognized at the international, regional and national levels.

The year 2000, the World Education Forum held in Dakar, Senegal encouraged countries to tap the potential of Information and Communication Technologies to improve access to education by remote and disadvantaged communities, enhance data collection, support capacity building of teachers, administrators and provide opportunities to communicate effectively and efficiently across classrooms and cultures (UNESCO, 2000). This same called also came from the United Nations Summit which called for basic education for all and the use of technologies in improving education.

Later in 2003, the World Summit on Information Society (WSIS) held in Geneva to discuss ways of making ICTs accessible to everybody in the world; aimed to bridge the digital divide between and within countries and establish an all-inclusive information society (Barry, 2006). The second phase of the WSIS held in Tunis, Tunisia sought to put into action the plans drawn-up and adopted during the first phase. Regarding education, the WSIS prioritized the provision of internet connectivity to all Universities, Secondary and Primary schools. It also sought to develop specific training programs in the use of ICTs in order to meet the educational needs of information professionals (Barry, 2006). Visscher (1996), states that "the tangible advantages of computer use in terms of efficiency and effectiveness have led to the wide utilization of computer technology for the operation and management of school organizations".

African countries have only recently begun to show the micro economic stability needed for education development and therefore the need to integrate ICTs in education administration is real more than ever before (Nduati & Bowman, 2005). According to Zainally (2008), ICT Integration provides facilities and possibilities for the education administrators to perform their tasks. In this regard, ICT integration can be realized in student administration for example students' records to various resource administrations in an education system. Willey (2003) notes

that school principals need effective and fast communication and accessibility to information because they need to correspond through email and the internet, create websites for school marketing so as to communicate to parents, other school administrators, business executives, school suppliers and the wider community.

The benefits of technologies in education are many and varied to all educational stakeholders. As Brush, Glazewski and Hew (2008) have stated, an ICT is used as a tool for students to discover learning topics, solve problems, and provide solutions to the problems in the learning process. ICT makes knowledge acquisition more accessible, and concepts in learning areas are understood while engaging students in the application of ICTs.

School administration is a key determinant for the realization of desired outcomes and success in schools and hence it is viewed as critical by all education stakeholders. In Africa, the Economic Commission for Africa has indicated that the ability to access and use information is no longer a luxury but a necessity for development. Gray and Smith (2007) observe that the twenty first century school administrator faces numerous challenges emanating from ICT use. This arises from the fact that many developing countries in Africa are still slow in ICT integration (Aduwa, Ogiegbean & Iyamu; 2005). Attitude issues as well as lack of ICT competence also affect ICT integration in school.

### Statement of Problem

The capabilities approach to education has increasingly gained prominence in recent years (Saito, 2003; Hoffman, 2003; Unterhalter, 2009). Focusing on capabilities can explain what it might mean to be educated in the global era and ensuring freedom in developing competencies of students which is the problem with the educational system today. The challenge to education generally was that, traditional education systems were rigid and designed to produce a cream of privileged elites. This was the case in Cameroon where the post independence education system with its grammar school orientation was designed to produce an educated class that would take over from the colonial administration. However, this white-collar mentality is gradually phased out with most governments recognizing the need for educational flexibility and technically equipped workers to boost economic growth. In this regard, the Government has made every effort to valorise technical education in Cameroon. This has been done firstly, by creating more of the technical training colleges in Cameroon. With the creation of these technical training institutions in line with capability theory, the students come in with their desires, expectations, and attitude in regard to skill acquisition. The students are therefore expected to become practical in their teaching, that is, be able to teach young Cameroonians to become self reliance. It is expected that the student teachers become entrepreneurial, be able to manipulate tools such as; control devices (contactors, switches, push button), line breakers, protecting devices, computers, web design, draft business correspondences, duplicators just to list a few. The study is therefore aimed at examining whether the higher technical teachers' training college Kumba is providing flexible programmes that will satisfy the desires of the students as they graduate, whether the learning approaches or training strategies are such that their dreams are fulfilled and also to examine if there exist a relationship between capabilities approach and the

development of competencies of students of the Higher Technical Teachers' Training College Kumba.

The purpose of this study is to examine Principals' use of ICTs in effective administration in public secondary schools in Fako Division, South West Region of Cameroon. In a more simplistic manner, this study intends to find out how do ICTs affect administration in terms of administrative planning, communicating, time management, implementing and monitoring activities?

## BACKGROUND

ICT is often used as an extended synonym for information technology (IT), which is a more general term that stresses the role of unified communications and the integration of telecommunications (telephone lines and wireless signals), computers, middleware as well as necessary software, storage- and audio-visual systems, which enable users to create, access, store, transmit, and manipulate information (Howe, 2010). Basically, ICTs consist of IT as well as telecommunication, broadcast media and all the other types of audio and video processing and transmission and network based control and monitoring functions.

Makhanu, (2010) describes ICTs as technologies that are used to create, manage, communicate and distribute information. It includes telephones, televisions, radios, computers, internet and audio-visual equipment. Makhanu, (2010) note that ICT is any application and device used to manage, access, create, evaluate, integrate and communicate information and knowledge. The author argues that digital technology is included in that definition. On the hand, Manduku, Kosgey, & Sang, (2012) observed that ICT hardware includes desktop computers, CD drive, laptop, telephone (landline and mobile) electricity infrastructure, scanner, printer and projector. Khan, (2012) describes software as detailed instructions (programs) and data that enable hardware to perform its tasks at high speed.

According to Rodriguez and Wilson (2000) ICT is a set of activities which facilitate by electronic means the processing, transmission and display of information. It is a technique people use to share, distribute, gather information and to communicate through computers and computer networks. Marcelle (2000) described ICT as a complex varied set of goods, applications and services used for producing, distributing, processing, transforming information (including) telecoms, TV and radio broadcasting, hardware and software, computer services and electronic media.

In this same light, Makhanu, (2010) posits that ICT implementation involves use of technology as a tool to research, evaluate, plan, organize and communicate information. Implementation of ICT in schools involves the extent to which teachers use computers, multimedia projectors, overhead projectors and other technology tools in their day today activities Menjo & Boit, (2012). According to them, the extent of ICT implementation in schools is generally consistent with the level of economic development. The author argues that implementation of ICT involves actual adoption and use of ICT tools in administrative tasks and it involves using Internet technology and computers to improve the quality of teaching, learning and school management.

Ubani (2006) saw ICT in the context of education as the combination of technologies for collecting, storing,

processing, communicating and delivery of information related to teaching and learning processes. He identified three categories of ICT to include processed information (that is, computer system), disseminated information ( that is telecommunication systems), and represented information (that is, multimedia systems). In the same vein, Onuma (2007) saw ICT as a broad term that had to do with the harnessing of the process, the methods, and the products of electronic and communication-related technologies (and other related resources in today's knowledge-driven society), for enhancing the productivity, spread and efficiency of a set of programmed activities geared towards the achievement of clearly determined goals.

As enunciated by Mbipom (2000), in this age of science and technology, computer would be a very handy tool in the hands of an effective school administrator. This tend to be supported by Onuma (2007) who pointed out that in the school situation, ICT is utilized to improve effective communication. He credited it with being the best educational technology medium for passing on information so far.

Cuban et al., (2002), posits that the uses of ICT in education can be described with its functions; ICT as an object by referring to learning about ICT; ICT as an 'assisting tool' while making assignments, collecting data and documentation, communicating and conducting research; ICT as a medium for teaching and learning; and ICT as a tool for organisation and management in schools. These four dimensions are foremost in the educational system.

From the aforementioned definitions, it can be evident that majority of the definitions make mention of ICT as a tool for collecting, storing, processing, communicating and delivering information. In relation to teaching and learning, it is a process used to integrate and communicate information and knowledge, process, transmit and display of information to users. As such, this study makes use of the definition of ICT by Cuban et al., (2002) because it makes mention of the fact that ICT is a tool within the school environment used for school administration and management, teaching and learning, enhancing the presentation of classroom work, teaching/learning repetitive tasks, teaching/learning intellectual, thinking and problem solving skills, stimulating creativity and imagination, for research by administrators, teachers and students and as communication tool among educational stakeholders. The National Policy for the Development of Information and Communication Technologies (NAICT, 2007), states that the educational sector in Cameroon includes schools, colleges, universities and research institutes. It is responsible for the development of human resources, the production and dissemination of knowledge, knowhow and management of skills. As such, it plays the role of an important catalyst in the development and deployment of ICTs in a country. In Cameroon the usage of such technologies in these sectors still needs to be developed although a few encouraging initiatives have been undertaken of late. These initiatives include: A commitment to generalise the training in ICTs of all products (pupils, students) in the Cameroonian educational system, by progressively introducing ICT courses at all levels (schools, colleges, universities), the construction of multimedia resource centres, in some public schools with access to the internet (NAICT, 2007).

According to Ndenge (2010), the Cameroon government is also particularly serious with ICTs and its role in development. This led the government of Cameroon into drafting the first national policy for the development of ICTs in 2007. Prior to 2007, several other initiatives were undertaken by various state departments and government personnel with no real framework as a guide to its implementation. Key commitments in this policy were to accelerate Cameroon's entry into the information society by encouraging large scale use of ICTs in the public sector (National ICT Policy, 2007). The national policy on ICTs serves as a driver to the general notion on the requirements by the state and other N.G.Os which are involved in development especially in the ICT sector. Although the National policy on ICT education mentions the need for development in this sector, the Vision 2035 document released by the Cameroon ministry of Economy, planning and regional development in 2009 does not place any particular emphasis on ICT development.

However, it mentions a need for global participation. This was going to be achieved by encouraging the use of ICTs by workers, issuing new rules for information processing, improving citizens' access to public information and modernizing administration by promoting online administration. Therefore, government services were going to be fully equipped, online government services were going to be developed, workers trained on the use of ICTs, development of information systems for the collection and dissemination of government data by developing digital storage systems and increasing the number of public access points (NAICT, 2007). This was the general conception, which was regarded as key to enabling the country participate effectively in the 21st century (Ndenge, 2010).

Since 2000, the number of secondary schools in Cameroon has tremendously grown with a percentage increase and teachers increase as well. Due to this development, the administration of secondary education system seems to be becoming more and more complex by the day and this complexity makes it expedient for the administrators to find a way of ensuring an effective management system that will enhance their productivity. During the past two decades, there has also been a tremendous improvement in information and communication technology- the advent of social media like Facebook, the internet, affordable and user friendly computers. Thus, ICT is very essential for the generation of quality information whose management is required for effective decision making.

Despite all these, the Cameroon educational system is robbed by lack of proper ICT use by administrators. This is due to the fact that those in charge of running the day to day activities of the school are less skilled in handling ICT related facilities which can largely be accountable to the short coming of the leadership style put in place. Apart from this there is inadequate initiative by the school leaders and teachers to improve on their technological skills. This promulgates a poor learning characterized by either lack of computers or outdated computers, no/poor internet connectivity amongst others which retards teaching and learning as well as effective administration. It is therefore very important for those heading the educational establishment like principals of public secondary schools to embrace the increasing need for a ICT usage in the teaching and learning process and for effective administration in

order to realize the set goals and objectives of a 21<sup>st</sup> century school. It is on this premise that this study is designed to examine principals' use of ICT in Cameroon secondary schools to ensure effective administration.

Information and Communication Technologies (ICTs) is an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer, and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as videoconferencing and distance learning. When such technologies are used for school administrative purposes, namely to support and improve School Administration, ICT can be considered as a sub field of Educational Technology (Kumar, 2008).

Also, McCausland, Wache, & Berk, (1999) stated that the availability of the computers both hardware and software is only one element of effective integration of ICT in schools. Nwidum (2006) listed ICT in education as motion picture or film, film strip, slide projection, overhead transparency, teletext and video text; the reprographic media are photography, photocopying, scanning and faxing microchips, microfilms and microfiche, voice mail and voice processing. The computer, the internet, multimedia systems are for example computer-based training (CBT), Computer Disc Read Only Memory (CD-ROM), Computer Disc Interactive (CD-I), Digital Video Interactive (DVI), and interactive processing information services.

For the purpose of this study, the following ICT will be used; Projector, TV Camera, Video Recordings, Radio Programmes, Media Van, Cinema, TV Programme, Telephone, Intercomm/PBX, Fax, E-mail facility, CD-ROM, Radiophone/ceptron, Internet facility, Graphic Information System (GIS), Computer, Newsletter, Research bulletin, Leaflets, Posters, Calendar of Work, Diaries, Annual Reports, Journals, Newspapers, and Magazines. In view of the importance of ICT in the performance of administrative duties, it is therefore necessary to determine the extent the Principals have access the selected ICT. Access refers to the ways and means in which individuals, communities and institutions are exposed to ICT. It takes into consideration such elements as affordability, availability of the technologies, geographical location of the access point, and the times at which the technologies are available.

According to the National Policy on Education (2010), secondary education is the education children receive after primary education and before the tertiary education. Secondary schools in Cameroon are organized in accordance with the educational policy as stipulated by Law No 98/004 of 14th April 1998 which lay down guidelines for education in Cameroon. Section 4 of this law states the general purpose of education which is the Cameroon's philosophy of education which brings out the fact that the national philosophy shall be to train children for their physical, intellectual, moral and civil development and how they can integrate in the society taking into consideration the prevailing economic, political, moral and socio cultural factors.

Secondary education in Cameroon last for 7 years for the English system. It is made up of two sections that is the first and second cycle. The first cycle last for five years and the second cycle for two years. It is equally important to know

that secondary schools in Cameroon are classified into general, technical/vocational each of this ends with a certificate: General Certificate of Education (G. C. E.) Ordinary Levels and Advanced Levels for the English sub-system. There is equally Probatoire and Baccalaureat (B.A.C) for the French sub system. The broad goal of secondary education is to prepare the individual for useful living within the society and higher education. The achievement of the above stated goals is dependent on the extent the principal; who is the chief executive officer in the school is capable of applying the appropriate administrative processes in the school operations.

The principal does not work in isolation; he/she is in constant interaction on one hand with the teachers, learners and the parents and on the other hand with the Delegation of Secondary Education linked to the Ministry of Secondary Education. The school is an open system that is in constant interaction with the environment. It receives inputs from the external environment in the form of human and material resources, processes them and empties same into the environment. Consequently, the administrative functions of the principal are very complex.

The adoption of ICT in education in Cameroon is not a yesteryears decision; the meeting of the educational experts in 1995 in Yaoundé saw only decisions on how the educational system can be improved upon and nothing was mentioned about the use of ICT in the classroom. Also, the Cameroon education law 9/004 of 14 April 1998 does not make mention of ICT in the school system. As such Teacher training colleges are only now making provision for teaching ICT and its use for pedagogical purposes. This implies that the teaching core is to a great extent computer illiterate.

In the presidents' message to the youth in 2001, the President of Cameroon called for an embrace of the knowledge of ICT (République du Cameroun, 2007). He promised the introduction of computing in schools and the endowment of computer rooms to schools. The impact of this Presidential speech accelerated in 2002, with the introduction of ICT in secondary general and technical schools. Numerous schools have benefited from presidential "gifts" of multimedia centres connected to internet. Official programs of ICT were designed for secondary schools in 2003 (ERNWACA-Cameroon, 2005).

Also, the Ministry of Secondary Education developed a strategy for the implementation of the national ICT policy in basic education over 2007-2015. The strategy includes mention of training in ICT for teachers and school directors and integration of ICT into the curriculum (République du Cameroun, 2007). It also drafted national guidelines for teaching ICT in pre-school and primary schools, with six different modules adapted to each level, from discovery and presentation skills to applying skills to knowledge construction and finally learning health and safety issues related to the use of ICT. The teacher modules include productivity and research, applying ICT to teaching and learning, evaluation, and lastly, social, moral, and human questions related to ethics and equality. (République du Cameroun, 2007)

Over the years, the administrative works of the principal have been print-based. Various documents were kept in the form of records. These records provide information on the past, present and anticipated future activities of the school

including relevant information from the external environment, which aid decision-making. The information kept are in the areas of instructional programmes and activities, staff and students personnel services, physical facilities, finance, supervision and interaction with stakeholders outside the school. The principal cannot perform his administrative duties without accurate, timely, sufficient and relevant information. The deficiencies associated with storage, preservation and presentation of large volumes of the information in paper form made managerial processes very cumbersome.

Consequently, alternative methods provided by Information and Communication Technology (ICT) became very imperative. The ICT is technology-based and knowledge-driven and is indispensable in the present age. As such, school principals have enormous responsibility for initiating and implementing school changes through the use of Information and communications technology (Schiller, 2003). Numerous researches find effective leadership as key and crucial ingredient for the success of any innovation in education (Bennet, 1996; Fullan, 1993). Also, Ritchie (1996) adds that if one of our goals is to put technology into the hands of the students, we must help the teachers gain the necessary access, understanding and confidence. Administrative leadership is one of the best ways to bring teachers to this level of proficiency.

Research findings by Molindo (1997) show that school principals who see the usefulness of ICT in their daily tasks are more likely to support and encourage the use of computer technologies in their schools and classrooms. Students are becoming more computer savvy than their teachers and administrators. As such, school teachers' counselors and administrators have to redouble their efforts in mastering the use of modern educational technologies if they have to remain relevant. Productive and effective in our 21<sup>st</sup> century school systems.

Becker (1993) contends that leadership is even more critical for the successful integration of ICT in schools today than it was before. According to Hope and Stakenas (1999), there are three roles played by the school Principal namely the role model, instructional leader and visionary role. Principals function as a role model when computer technology is applied to administrative and managerial task. As an instructional leader they facilitate teachers' integration of computers in Teaching and Learning. In the form of a visionary role they envisage a context for technology in school and are able to comprehend how learning can be restructured to empower teachers.

Vernon (2001) stated that ICT is a collective term covering all those technologies, both hardware and software, dedicated to the capture, storage, and processing, transmission, and presentation of information. Some of the areas where computers can be used for effective educational administration according to Ben-Zion, Moshe and Yaffa (1995) cited in Krishnaveni & Meenakumari (2008), are General Administration, pay Roll and Financial Accounting, administration of Student Data, Inventory Management, Personnel Records Maintenance and Library System.

ICT application in schools covers a wider scope including the comprehensive approach to innovate educational systems, methods, and management through Information Communications Technology, restructuring education

system, diversifying teaching-learning methods & practices, engaging all stakeholders of education and adapting rapid to changes in society and the environment and enhancing education efficiency, effectiveness, and productivity (Gwang-Jo, 2009). In the administration of the school, ICT can also be applicable in the administering of human, physical and financial resources.

Ogiegbaen & Iyamu (2005) posit that “in a rapidly changing world of global market competition, automation, and increasing democratisation, education is necessary for an individual to have the capacity and capability to access and apply information”. Such ability and capability must find bearing in information and communication technology in the global village. Maki (2008) states that ICT enables managers and administrators to update and record changes in the school environment; to produce documents regarding operational activities of the school; to support decision and decision making due to the fact that ICT systems present reality at the moment; to communicate data, that is exchange messages and data between school staff and other schools or organisations.

Visscher (1996) also contends that “computers can help school managers in finding creative solutions for complex allocation problems, for example teacher allocation, timetable construction; and supporting them in carefully monitoring how the school operates”. School Information Systems (SISs) can provide managers with the information required for effective administration through informed planning, policy-making, and evaluation. In addition, SISs can assist in improving the efficiency and effectiveness of schools.

Likewise, secondary school administration entails working with and through teachers, non-teaching staff and students to get things done effectively, it is more concerned with the institution, its goals, policies, and execution of these policies (Ajayi & Ayodele, 2003). In school administration according to Jaiyeoba (2006), the primary aim has to do with the improvement of teaching and learning and all the activities of the school; and which is being performed by the principals in secondary schools. The place of ICT in secondary school administration therefore cannot be overemphasized considering the problems of over-enrolment of students, shortage of instructional materials and human resources, inadequate infrastructural facilities coupled with poor funding of secondary education which appear to be militating against effective secondary school administration.

Gradually the management and policy makers realized the potentiality of ICT equipment in the area of educational administration such as admission, examination, accounting, inventory management, library materials management, student record keeping, etc. ICT facilities are well suited for information processing tasks because of their speed, accuracy, and ability to store large data in an accessible form. According to Ogechukwu and Osuagwu (2009), school systems have grown in size and in scope of their activities; computer technology has provided mechanism for administrators to keep abreast of increasing demands for current and documented information. Grades assigned to students must be recorded in some fashion, and these records must be easily and readily accessible to appAn increasing number of scholars agree that leadership plays a major role in ICT implementation at schools, especially in its integration into the curriculum (Mulkeen 2003; Tondeur et

al. 2008). The success of implementing ICT use in schools depends on the leadership role of school principals in managing change (Kaplan & Norton, 2008). The secondary-school principal as a leader plays a crucial role in taking positive action to facilitate the coping with technology change. Dawson and Rakes (2003) support that amongst other things, ICT access to school principals plays a role in determining to what extent computers can be integrated in school operations. The management of an organisation must participate in the quality programme, because today's world demands a workforce that understands how to use technology as a tool for increasing productivity and creativity (Wilding & Blackford, 2006).

According to Miao and Lee (2006), one of the prerequisite for economic and social development is education and governments of the day are pressured into providing education to all of its citizens irrespective of the availability of various resources. At the same time, globalization and the shift to a ‘knowledge-based economy’ requires that existing educational institutions develop individuals the ability to transform information into knowledge and to apply that in a dynamic, cross-cultural context and ICT are a means for meeting these twin challenges. Information and Communication Technologies offer both challenges and promises for social and economic development and this is nowhere more apparent than in the world's poorest countries.

The educational system is undergoing changes occasioned by socio-economic, political and technological changes in the external environment. This makes the administrative work of the principal very challenging. The principal plays a very important role in the educational system. Consequently, state of the art ICT facilities should be provided for efficient management of the school system. Investment in ICT is indispensable considering the relationship between economic development and effective use of ICT. Howell and Lundall (2000) emphasized that the effective use of ICT in a country impacts strongly on the competitiveness of that economy within the global market place as well as the ability of the governments to deliver on their social goals. The educational system is already facing numerous problems ranging from lack of infrastructural facilities for effective teaching and learning to poor quality teachers. This raises the issue of the extent the use of ICT in administrative and managerial duties of the principal will receive adequate attention.

In educational administration, computers have been used in timetabling, personnel management, financial control and examination administration. Schemelzer (2001) noted that technology can help administrators to deal with some of the challenges they face but only if they have a vision and know how to harness it and make it part of the fabric that supports the teaching and learning process in schools. The use of computers has also helped school administrators to plan and allocate human resource and physical resources more effectively. Mablinger (1996) explained how the ability connects computers through networks helps principals to work together and share information and thus promoting school-community relationship. For ICT integration programs to be effective and sustainable, administrators themselves must be competent in the use of the technology, and they must have a broad understanding of the technical, curricular, administrative, financial, and social dimensions of ICT use in education.

Similarly, Ololube, Ubogu, and Ossai (2007) stated that introduction of ICT usage and its integration has initiated a new age in educational methodologies. ICT equipment is used widely for preparation and maintenance of payrolls system. It has the potential in terms of time saving, accuracy, legibility, data storage, record check, and amenable for further data analysis, comparative statements, task calculations, and preparation of summary reports. Computer and other ICT facilities can handle effectively storage and retrieval of records irrespective of the volume (Adoni and Kpangban, 2010).

The major applications of ICT equipment which have direct impact on the students are course schedules, attendance, and academic performance, input through computer to monitor the course schedules, attendance reports, and graded/marks reports of each student. The historical data/information obtained through these reports is also used for reviewing the performance of the school

Clifton (2007) stated that every school has to develop a personnel information system to; store personnel details (like name, address, telephone number, date of birth, educational qualifications and experience, salary, health data etc.) of individual employees for reference and provide a basis for decision-making in every area of personnel work like recruitment and selection, termination and redundancy, education and training, pay, administration, health etc.

Furthermore, Nwosu (2014) noted that the use of ICT facilities for record-keeping assisted the school administrator to meet the task of school management in the areas of curriculum and instruction, school community relationship and school business operations. But with the use of the computer, which could store up thousands of files in its memory, it only requires the utilization of ICT resources to boost administrative effectiveness. With the diffusion of ICT innovations in educational institutions which has radically changed how work is done, ICTs have offered tremendous possibilities in improving and developing administrators' professional capability (Njoku, 2006).

Krishnaveni and Meenakumari (2008) points out that the various research studies conducted to evaluate the extent of usage of ITC's in multiple aspects of higher education revealed that heads of faculties utilised technology in planning. To a large extent, utilisation has also been revealed in the supervision and evaluation of academic, student, financial and administrative affairs. It was concluded that ICT's have an impact on the increase of the scientific level of faculty members, students, and staff.

According to the study, ICT could aid instructional supervision through facilitating decision making process, planning, organizing, communicating, influencing, coordinating and evaluating. For a principal running a big school or institution, running various human resource areas

like curriculum development, instructional supervision, staff and student, personnel administration, guidance and counseling, finance, community relations, construction and maintenance of facilities and special services could be tasking and time consuming. For the principal to function efficiently and effectively in the present computer age, he/she must rise to the challenge of adopting new technological resources and services in the management of the school.

Ogiegbaen (2005) observes that "although the chalkboard, textbooks, radio, television and film have been used for educational purposes over the years, none have quite impacted on the educational process like the computer". ICT has the capacity to provide higher interactive potential for users to develop their individual, intellectual and creative ability. Maaki (2008) notes that ICT plays a very vital role in supporting powerful school leadership, efficient management and administration. The following section addressed the research problem that was identified for this study.

Tinio (2013) also states that with the advent of internet, a student is able to access the result at his/her home. Records showing the costs involved in running a school must be kept up to date in a thoroughly accurate manner. ICT equipment can be tremendously helpful in maintaining financial records. The electronic spreadsheet software is very useful for administrators in recording and analyzing the financial data of the educational institutions. It has been found that a computer system compared to a manual system produces more accurate student, personnel, and financial records. The use of computer in educational administration reduces time expended on clerical or paper work tasks, produce accurate information, ensure generation of reports when needed, and facilitate decision-making process. In educational institutions, ICT equipment can be used in preparation of time-tables of different classes so that the classes can be run without time and room conflicts. It may also be used to keep track of appointments and obligations appropriate individuals.

## **METHODOLOGY**

The research design employed for this study was the survey design type which was deemed necessary to help the researcher to extract data that were near to the exact attributes of the larger population (population of the study). This study was carried out in Fako Division. Fako is found in South West Region of Cameroon.

The population considered in this study was made up of all Principals and Vice Principals in Public Secondary Schools in Fako division. The justification for choosing this population was because the study related only to administrators (Principals and Vice Principals) who are responsible for effective administration in schools and ICTs tools has been identified as a tool for effective administration.

**List of Schools, Principals and Vice Principals of Fako**

Sub Division	Name Of Schools	Number Of Principals	Number Of Vice Principals
BUEA	BGS MOLYKO	1	12
	GBHS MUEA	1	12
	GHS BONJONGO	1	4
	GHS BUEA	1	10
	GHS BUEA TOWN	1	6
	GHS BOMAKA	1	1
	GHS GREAT SOPPO	1	1
	GTHS MOLYKO	1	1
	GTTC BUEA	1	1
	GHS BOKOVA	1	1
	GTC BOVA	1	1
	GHS BOLIFAMBA	1	4
	GHS BUEAL RURAL	1	5
	GSS DIBANDA	1	0
LIMBE 1	GBHS LIMBE	1	1
	GHS LIMBE	1	1
	GTHS LIMBE	1	1
	GTTC LIMBE	1	1
	GHS BONAOLIKOMBO	1	1
LIMBE 2	GHS BATOKE	1	1
	GTC ISOKOLO	1	1
LIMBE 3	GHS MBONJO	1	1
	GSS MBATA	1	1
TIKO SUB DIVISION	GHS MOTOMBOLOMBO	1	1
	GTHS OMBE	1	1
	GBHS TIKO	1	1
	GBHS MODEKA	1	1
	GBHS MUTENGENE	1	1
	GTHS TIKO	1	1
Muyuka Sub Division	GBHS MUYUKA	1	1
	GHS MALEDE	1	1
	GTC EKONA	1	1
	GSS OWE ROAD	1	1
	GTHS YUKE	1	1
	GHS EKONA	1	6
	GHS MALENDE	1	9
	GHS MOYENGE	1	2
	GHS BAFIA	1	0
	GTC MUYUKA	1	3
West Coast	GHS IDENAU	1	1
	GTC BAKIGILI	1	1
<b>TOTAL</b>		<b>41</b>	<b>114</b>

The simple random sampling method was used to choose each school and Principals and Vice Principal. This sampling technique was used to give all the schools and Principals equal chances of being selected.

According to the available data from the regional delegation of secondary education for the south west region of Cameroon, there are 41 secondary schools and 41 principals in Fako division but this study also involved Vice Principals which were 171 given that it had a total number of 212. From the above number mentioned, 26 schools were selected from the public secondary schools and out of 171 Vice Principals 110 vice Principals were selected giving a total number of 136 respondents. This sample size gave a percentage 60% of the population which appropriates for the study in that Mugenda & Mugenda (1999) recommended that for descriptive studies ten percent or above of the accessible population is enough for the entire study. This also tied with

Morgan (1970) who stated that a population of 210, a sample of 136 is appropriate as was found on the Appendix IV.

**Sample Size**

Name of Schools	N° of Principals	Sample Size	N° of Vice Principal	Sample size
Buea	17	11	56	37
Limbe 1	5	0	32	21
Limbe 11	2	1	9	3
Limbe 111	1	1	6	4
Tiko	6	4	41	27
Muyuka	8	5	26	17
West Coast	2	1	2	1
	<b>41</b>	<b>26</b>	<b>172</b>	<b>110</b>

Questionnaires were used to collect data from the students. This instrument was considered simply because it can be used to reach a large number of respondents within a short time, it gives the respondents adequate time to respond to the items, offers a sense of security (confidentiality) to the respondents and lastly it tends to be objective since there is no bias resulting from the personal characteristics (Ogula, 1998).

Data was analysed using the Statistical Package for the Social Sciences (SPSS 21) and reported using measures of central tendency – frequencies, percentages, means, scores and global mean using the likert scale which constituted the descriptive statistics. For generalization about the population, inferential statistics was used as such the spearman rho correlation was used to test the hypothesis of the study.

## FINDING

The research question in this study was to examine Principal use of ICTs in effective administration in Public Secondary schools in Fako Division. Given that administration in the educational milieu refers to the careful and systematic arrangements or organization and use of human, financial and material resources, and programmes to achieve educational goals; which include managing students' academic affairs such as preparation of teaching and learning materials, setting and administering of examination, record keeping, tracking academic progress, fee payments, and communication with parents and other stakeholders. Effective administration in this context was grouped under administrative planning, organization, execution/implementation, control and monitoring.

The tables below present the percentage and frequency distributions of respondents' views on their use of ICTs in effective administration grouped under planning, implementation/execution and monitoring.

**Table A: Distribution of Respondents' views on their use of ICTs in Planning Administrative Activities**

Question	SA		A		I		D		SD	
	F	%	F	%	F	%	F	%	F	%
Use internet to do my research and get ideas to design program of activities for the year	89	89.0	5	5.0	1	1.0	3	3.0	2	2.0
Type and store all school records in the computer for security and time saving in accessibility including timetables	60	60.0	15	15.0	2	2.0	18	18.0	5	5.0
Have an electronic database to store students' records	60	60.0	20	20.0	2	2.0	13	13.0	5	5.0
Develop a school site or blog to showcase activities related to the school	6	6.0	7	7.0	4	4.0	6	6.0	77	77.0
Create a school email that keeps important administrative documents for security easy and accessibility	88	88.0	7	7.0	1	1.0	3	3.0	1.	1.0

Source: Field Survey, 2016

Table A, above sought to examine Public Secondary School Principals' views on the use of ICTs in administrative planning. As seen on the table, the findings showed that 89.0% of the respondents strongly held the view that they use internet to do research and get ideas which help them to design program of activities for their schools. This view was further supported by 5.0% of the respondents as opposed to 5% of them who disagree with the statement. According to them, they do not research on the internet before getting ideas that can be fitted into their academic program for the year. On a neutral ground, 1% of the respondent did not take any definite stand. This showed from the percentages obtained that most of the Principals in Public Secondary Schools in Fako use the internet during their planning sessions to develop ideas that can enhance academics in the school.

Also, respondents indicated that when planning how to run the administrative affairs of the school, they usually include the issue of typing and storing all school records in the computer for security and time saving. This opinion was strongly supported by 75% of the respondents while 23% of them disagreed that they do not usually plan on this aspect. Habitually, 5% of the respondents remained indifferent; they neither agreed nor disagreed. This could mean that they did not know whether typing and storing school records in the computer ensured security or not. Despite this 5% indecision and 23% negation, it can be worth concluding that most Principals of Public Secondary schools in Fako strongly agreed that during their planning sessions, they

ensure that the issue of storing all school documents in a soft copy in the school computer is always considered.

Similarly, 80% of the respondents agreed that during their planning phase of administrative duties, they always endeavor to ensure that they develop an electronic database to store students' records so that can easily retrieve any information related to a students' admission, conduct and performance. 18% of the respondents negated statement by disagreeing that they do not have an electronic database to store students' records.

More so, 88% of the respondents strongly held the opinion that when they were planning their administrative activities, they had to include the creating of a school email address that will help in keeping important administrative documents for security and easy accessibility. This also included the use of a school Post Box. There was a 7.0% agreement to confirm this view while 4% of the respondents disagreed with the statement. In an overall base, 95% of the respondents agreed to the statement against 5% of them disagreed; leading logically to the conclusion that Principals in Public Secondary Schools in Fako have created a school email that keeps important administrative documents for security and easy accessibility.

Contrarily, the results show that only 13% of the respondents agreed that they have developed a school site or blog to showcase activities related to their school while the remaining 87% of the respondents disagreed. This showed that Principals of Public Secondary in Fako do not give much

attention on displaying their school on social media. These findings could be confirmed positive because most schools showcase their schools on media especially social sites and blogs in order to attract students and gain popularity. This is different in public schools especially in Fako which usually suffers from population as compared to the Private Secondary Schools in the Division.

**Table B: Distribution of Mean and Standard Deviation Values on Principal Use of ICTs in Planning Administrative Activities**

Use of ICTs in Planning Activities	Mean	Standard Deviation
Use internet to do my research and get ideas to design program of activities for the year	3.79	0.68
Type and store all school records in the computer for security and time saving and accessibility	3.26	1.05
Have an electronic database to store students' records	3.65	0.73
Develop a school site or blog to showcase activities related to the school	2.98	1.43
Create a school email that keeps important administrative documents for security easy and accessibility	3.80	0.64
<b>Global Values</b>	<b>3.50</b>	<b>0.88</b>

Source: Field survey, 2016

Table B, above showed mean and standard deviation values relating to principal use of ICTs in planning administration activities. A high mean value of 3.80 was registered on the

fact that principals create school emails that keep important administrative documents for security and easy accessibility. This was followed by a mean of 3.79 which was recorded against the fact Principals in Public Secondary Schools in Fako make use of internet to do their researches in order to gather ideas to design program of activities for their schools. Other values like 3.26 and 3.65 indicated that there is much adherence in the use of ICTs in planning administrative activities by Principals of Public Secondary schools in Fako in the domains of developing record and data base pertaining to administrators and students in order to secure information and save time to access when need be. This is because they have noticed that ICT facilities are well suited for information processing tasks because of their speed, accuracy, and ability to store large data in an accessible form.

Besides these mean values are standard deviation values of 0.68, 0.73 and 0.64 which indicate the degree of deviation of each of the responses from the mean value. The fact that these values were not up to 1, indicated that the variation from the mean are very small; implying that not many teachers hold views different from what the table portrays. It can be concluded therefore, that principals of Public Secondary Schools in Fako make use of ICTs in their administrative planning.

Despite this, the mean value 2.98 indicated that only few respondents confirmed that they have developed a school site or blog to showcase activities related to their schools. Most of the principals do not make use of these technologies.

Going by the global mean value 3.50, it can be concluded that principals effectively use ICTs in planning their administrative activities in Public Secondary Schools in Fako Division.

**Table C: Distribution of Respondents' views on their use of ICTs in Executing Administrative Activities**

Use of ICTs in Executing Administrative Activities	SA		A		I		D		SD	
	F	%	F	%	F	%	F	%	F	%
I communicate with students, colleagues and parents using notices typed and printed in the computer	81	81.0	9	9.0	0	0.0	7	7.0	3	3.0
In urgency, I communicate with my teachers and close collaborators using the mobile phone and emails	76	76.0	16	16.0	1	1.0	6	6.0	1	1.0
I find it easier to circulate information concerning the school through radio and television announcements	92	92.0	7	7.0	0	0.0	1	1.0	00	00.0
Use projectors and white boards during seminars and workshops to increase understandability	6	6.0	7	7.0	4	4.0	6	6.0	77	77.0

Source: Field Survey, 2016

Principal use of ICT in effective administration was equally examined in relation to the use of ICTs in implementing administrative decisions arrived at by the principal. This encompassed the use of ICTs in issues like communication in and out of the school using phones, internet, radio and television and the scheduling of meetings and seminars in which projectors are used. As seen on table C above, 90% of the respondents agreed to the fact that they make use of ICTs in implementation of their administrative decisions. They communicate with students, colleagues and parents using notices typed and printed in the computers. This helps to save time that could have been taken to write the letters with the hand and share given that the population of the schools is much. Also, these computers, printers and photocopiers help them to easily replicate the typed notices. In order to save resources, administrators use a single sheet of paper to present information that can be shared to about

three or four parents wherein the cutting machine is used to separate the sheet of paper into the required number. All these were identified as the usage of ICTs for principals in executing their administrative duties. On the contrary view, 10% of the respondents refuted that they do not make use of ICTs in that manner. This percentage value appeared insignificant to highly affect the conclusion that Principals of Public Secondary Schools in the Fako Division make use of ICTs like computers, printers, scanners, photocopiers and cutting machines in facilitating the implementation of their administrative functions.

In like manner, 92% of the respondents agreed to the view that they make use of ICTs in administration especially when there is urgency. They communicate with their colleagues, subordinates and close collaborators using the mobile phone and emails in order to facilitate the speed of information

flow. On the contrary, 1.0% of the respondents were indifferent on their issue; neither agreed nor disagreed meanwhile 7% of them totally differed with the above view. Also, 99% of the respondents acknowledged that they find it easier to circulate information concerning their schools through radio and television announcements.

The use of projectors and white boards during seminars and workshops recorded only a confirmation of about 13% from the respondents. While 84% of the respondents indicated that they do not make use of these ICTs in their schools, and 4% still remained undecided. Going by the percentage distribution, the use of projectors and white boards have a positive value of 13% against a negative value of 84%; hence, it is obvious that Principals in Public Secondary Schools in Fako do not make use of ICTs like projectors and white boards. The ensuing table 4.13 presents a distribution of the mean and standard deviation values of these responses.

**Table D: Distribution of Mean and Standard Deviation Values on Principal Use of ICTs in Executing Administrative Activities**

Use of ICTs in Executing Activities	Mean	Standard Deviation
I communicate with students, colleagues and parents using notices typed and printed in the computer	3.68	0.74
In urgency, I communicate with my teachers and close collaborators using the mobile phone and emails	3.65	0.73
I find it easier to circulate information concerning the school through radio and television announcements	3.91	0.32
Use projectors and white boards during seminars and workshops to increase understandability	2.89	1.34
<b>Global Values</b>	<b>3.63</b>	<b>0.78</b>

Source: Field survey, 2016

The mean and standard deviations values exhibited in table D above revealed that most Principals of Public Secondary Schools in Fako make use of ICTs in facilitating the implementation of decisions arrived at by the administration. There were high mean values of 3.68, 3.65 and 3.91 representing the fact that communication to students, colleagues and parents was documented and circulated in form of notices typed using computers, reproduced in printers, replicated using photocopiers and even separated into smaller sizes as required using a cutting machine. This saved time that could have been taken in writing a notice with the hand and recopied to match the actual student size of the school. Also, urgency was acknowledged to be well catered for with the use of ICTs by principals of these schools. They use phones to make calls and send text messages to their teachers and colleagues as well as bosses ahead of them when need arises. They equally communicate through emails especially with the possibility of linking all staff emails to the school email. Likewise, the mean value 3.91 attested to the fact that most principals find it easier to circulate information concerning their school through radio and television announcements.

That notwithstanding, a low mean value 2.89 was recorded against the opinion that principals make use of projectors and white boards during seminars and workshops to increase understandability. This implied that most of the principals were for the fact that they do not make use of projectors and white boards during meetings and seminars. This could stem from the fact that most of these principals did not have adequate training on how to use ICTs in administration, as such, they find it difficult to use. As such, it is essential to urge the Principals in Public Secondary Schools in Fako to adopt such ICTs in their administration especially the projector as it enhances understandability especially to visual learners.

Despite this, the global mean value of 3.63 is high indicating that despite the negations, it can be resolved that Principals in Fako adopt ICTs in implementing their administration duties.

**Table E: Distribution of Respondents' views on their Use of ICTs in Monitoring Administrative Activities**

Monitoring Activities	SA		A		I		D		SD	
	F	%	F	%	F	%	F	%	F	%
Use students spreadsheets to monitor students' progress in school and evaluate performance	89	89.0	5	5.0	1	1.0	3	3.0	2	2.0
Cameras are positioned in strategic places to ensure that there is strict monitoring of activities in school	2	2.0	11	11.0	13	13.0	16	16.0	58	58.0
Read comments on school blog and site to know the reputation of the school in the public	7	7.0	18	18.0	1	1.0	19	19.0	53	53.0

Source: Field Survey, 2016

Lastly, the use of ICTs in effective administration was examined in line with the monitoring function of a principal. As seen on table E above, it was glaring that about 94% of the respondents agreed that they use students' spreadsheets to monitor students' progress in school and evaluate performance. Since they acknowledged that they have data base in which students records are stored in their computers, they use these data bases to monitor the progress of their students, teachers and even the rise and fall in the school population. 5% of the respondents did not agree with this view while 1% remained neutral.

Nonetheless, it can be settled that principals make use of ICTs to monitor school performance.

The use of cameras in monitoring was only agreed upon 13% of the respondents to be evident in their schools. According to these respondents, they have cameras positioned in strategic places in their schools to monitor happenings in and around their schools. This helps in facilitating the monitoring role of a school administrator. On the contrary, majority of the respondents (74%) reported that they do not make use of this ICT tool in their schools while 13% of them remained indifferent.

Lastly, a quarter (25%) of the respondents indicated that their schools have websites and blogs on the internet through which they read comments from the public to know the reputation of the school in the general public. The remaining 75% of the respondents disagreed that they do not make use of such ICTs.

It can be concluded from the above presentations that Principals of Public Secondary Schools in Fako still underutilize ICTs in performing their monitoring activities. They only make use of the school data base on their machines while other aspects like the use of cameras and websites/blogs is still highly ignored.

**Table F: Distribution of Mean and Standard Deviation Values on Principal use of ICTs in Monitoring Administrative Activities**

Use of ICTs in Monitoring Activities	Mean	Standard Deviation
Use students spreadsheets to monitor students' progress in school and evaluate performance	3.91	0.32
Cameras are positioned in strategic places to ensure that there is strict monitoring of activities in school	2.89	1.34
Read comments on school blog and site to know the reputation of the school in the public	2.53	1.24
<b>Global Values</b>	<b>3.11</b>	<b>0.53</b>

Source: Field survey, 2016

The presentation on table F above revealed a mean value of 3.91 on the opinion that principals make use students of spreadsheets to monitor students' progress in school and evaluate performance, second by a value of 2.89 on the fact that school administrators use cameras to monitor the happenings in and around the school vicinity. Lastly, a value of 2.53 was recorded against the fact that administrators read comments on their school blogs and websites to know the reputation of the school to the public.

Going by these mean values of 2.89 and 2.53, it was worth concluding that there is underutilization of ICTs by principals in Public schools in Fako to perform their monitoring activities. Despite this, the global mean value 3.11 makes showed that though there is underutilization, the usage is at an increase. Hence, there is a need to commend for increase usage of these facilities in order to ease administration and fit with the increasing technological growth which warrants everyone including principals of Public schools to fit in the new edge.

In a summative manner, the findings indicated that 89% of the respondents use internet to do research and get ideas which help them to design their program of activities for their schools. They visit the internet during their planning sessions to develop ideas that can enhance academics in the school. They also ensure that all school documents are typed and stored in a soft copy in the school computer. They draft the school timetable and schedule of activities for the year just at the beginning of the school year. 80% of the principals ensure that during their planning phase they develop an electronic database to store students' records so that it can be easily retrieved. They also have School Information

Systems which contain any information related to students' admission, conduct and performance as well as the staff.

This confirms the findings of Maki (2008) that ICT enables managers and administrators to update and record changes in the school environment; to produce documents regarding operational activities of the school; to support decision and decision making due to the fact that ICT systems present reality at the moment; to communicate data, that is exchange messages and data between school staff and other schools or organisations. Also, Visscher (1996) contends that "computers can help school managers in finding creative solutions for complex allocation problems, for example teacher allocation, timetable construction; and supporting them in carefully monitoring how the school operates". School Information Systems (SISs) can provide managers with the information required for effective administration through informed planning, policy-making, and evaluation. In addition, SISs can assist in improving the efficiency and effectiveness of schools.

There is also massive confirmation that Principals have created school email addresses which help in keeping important administrative documents that can be accessed at anytime and anywhere in as much as there is internet connectivity; this helps to ensure security. Some of them have school Post Box.

In terms of implementation, majority of the respondents agreed to the fact that they make use of ICTs in implementation some administrative decisions. They communicate with students, colleagues and parents using notices typed and printed in the computers. This helps to save time that could have been spent in writing letters with the hand given that the population of the schools is at an increase. They also communicate with their colleagues, subordinates and close collaborators using the mobile phone and emails in order to facilitate the speed of information flow. This conforms to the findings of Mablinger (1996) who explained the ability of internet to connect computers through networks which helps principals to work together and share information and thus promoting school-community relationship.

Another ICT that recorded low usage was projectors and white boards. 84% of the respondents indicated that they do not make use of these facilities in their schools. This contradicts the study of Abdul Razak & Zohora (2012) who conducted a study to investigate the areas of ICT utilization among teachers and principals of Malaysian schools and found out that, 95% schools had photocopy machines and scanners while the multimedia projector is available in 85% schools. Besides, 72% schools are equipped with a video camera, overhead projector and laptop.

Also, only few of the schools in this study make use of social media like facebook, websites and blogs in order to showcase activities about their schools. This is because such public schools do not make publicity to attract student population as compared to the Private Secondary Schools in the Division. All these help saving time as urgency is being catered for with the use of these ICTs. A global mean value of 3.63 was recorded on this aspect to further support the fact that Principals in Fako adopt ICTs in implementing their administration duties. That notwithstanding, principals were urged to use projectors and white boards during seminars

and training workshops in order to enhance understandability especially to visual learners.

In performing the monitoring role of the principal, this study found out that in Public Secondary Schools in Fako there is underutilization of ICTs on this aspect. Only few principals had cameras installed in their schools to track happenings in and around the school premises during school times and off school times. Despite this, the global mean value 3.11 made it logical to conclude that though there is underutilization, the usage is at an increase. Hence, there is a need to commend for increased usage of these facilities in order to ease administration and be apt with the increasing technological growth.

### Conclusion

Based on the findings discussed above, it is evident that the advent of technology has changed the traditional function of a principal as a ceremonial figure head who is charged with the responsibility of giving orders to one that demands a creative, enthusiastic, uniting, collaborative approach to leadership. Most principals in Public Secondary Schools in Fako make use ICTs like phones, computers, printers, internet, Radio, Television and Photocopy machines. It was then concluded that the ICTs used in these schools were not adequate to ensure effective administration. Most schools were not fully utilizing most of these facilities while some did not even use others like cameras and projectors.

Perceptions of principals towards the use of ICT tools in administration in public secondary schools in Fako were generally positive, with most of them commending its use for speed and time saving. Despite the challenge of inadequate facilities, teachers are enthusiastic and eager to use ICTs in the administration though they feel that they require further training in ICT and technical support skills. On this note, they desired workshops on IT training and use in administration.

It was equally concluded that the Principals in Public Secondary Schools in Fako use ICT equipment in preparation and maintenance of information systems in school, creating and maintaining student data base, create schedule of activities and time tables, type and store administration documents that ensure effective storage and retrieval irrespective of the volume. It has the potential in terms of time saving, accuracy, legibility, data storage, record check, and amenable for further references, comparative statements, task calculations, and preparation of report of school activities and performances.

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