ICT AND FINANCIAL MANAGEMENT OF SECONDARY SCHOOLS IN NAIROBI

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DECLARATION

This research project is my original work and has not been submitted for an award in any other university.

Signed …………………………….. 　　Date………………………

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D61/60214/2010

This research project has been submitted for examination with my approval as the university supervisor

Signed …………………………….. 　　Date………………………

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DEDICATION

This project is a special dedication to my two sons, let them know that with hard work and trust in the Almighty God they can achieve everything they target to achieve.

ACKNOWLEDGEMENT

I give thanks to Almighty God for granting me the strength, guidance and ability to conclude this project. Secondly, I am greatly indebted to my supervisor, Mr. Joel Lelei for his guidance in the process of writing this project. My appreciation also goes to my spouse and two sons for eminence support. Their contribution was great in terms of encouragement, prayers and forbearing with my absence from home when am away studying in the college. Finally I am grateful to the community at large, who availed any relevant information needed in the writing my Project.

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LIST OF ABBREVIATIONS

EMIS   Education Management Information System

FPE   Free Primary Education

ICT   Information and Communication Technology

MIS   Management Information Systems

NGO   Non-Government Organization

SMS   Short Messaging Services

SPSS   Statistical package for social sciences

TAM   Technology Acceptance Model

ABSTRACT

Information Communication Technology (ICT) has great potential in changing the way organizations manage finances and other operations. Therefore, many organizations are whirling their rethinking around and towards ensuring that they lag none of their intentions upon any opportunity that rejuvenates therein. Upon then, many have contributed to the existence of quite a wide array of literature in regard to aspects of ICT application in financial management. However, in spite of this high edge knowledge existence, there is scarcity on the same pertaining to the ICT application and financial performance of High schools in Nairobi. The objectives of the study were; To determine the extent of use of ICT application in financial management of schools in Nairobi, To establish the challenges experienced in the use of ICT as a tool for financial management of secondary schools in Nairobi and To determine the relationship between ICT application and financial management performance of secondary schools in Nairobi. This study also focuses and attempts to fill this gap by using descriptive research design. Data was collected through use of well semi-structured questionnaire. The respondents of the study were School Head Teachers and Bursars. Snowball sampling method was adopted to select a sample of fifty one Secondary Schools in Nairobi. Data obtained was well coded and analysed using frequencies, percentages, mean, standard deviation and regression model. The study found that several secondary schools within Nairobi had made tremendous attempt in adopting ICT application in their everyday operations, most departments like account office/bursars office, exams department relying too much in ICT. It was also evidenced that although most secondary schools within Nairobi already adopted ICT in their operations, there were several challenges facing them. The major challenges were; inadequate funds to purchase all modern computers and computers software as well as lack of data backup devices and unreliable internet connection. The study also found that ICT application and financial management performance had a positive relationship. The study concludes that for schools to enhance financial management performance ICT application needs to be adopted.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

ICT integration into everyday functions of the secondary schools has a remarkable effect on nearly all aspects of school management, structure and dynamics. In schools ICT can be integrated into educational management information system (EMIS) that allow management of academics effectively, financial and human resource management. ICT is defined as a continuum of skills and abilities in respect of electronic facilities like TV, radio, computers, tablets and ipads in general management of educational performance and standards (Zuppo, 2012). ICT is also outlined as the assorted collection of technological tools and resources used to interconnect, distribute, record and administer information (Savarinus Kaka, 2008). These equipment include computers, the internet, broadcasting technologies (TV and radio) and telephony." Application of ICT shows that data can be deposited, recovered and distributed online with the use of MIS only if ICT is available and applicable.

ICT acceptance is quickly forming an essential role of school's life and an unavoidable in management of finance. To support this opinion Ngugi (2012) observed ICTs is becoming useful for recording and scrutinizing data in management of finances for schools which includes budgetary provisions, expenses, fees payments for students and accounting in general. Moreover, Roberts and Sikes (2011) notes that as part of scheduling and controlling of finances, accounting process in schools entails the readiness of numerous information sources to manage which can be made available through ICT inclusion in management systems for schools.

Thus in the introduction of ICT in schools, one should consider the place of the administration, teachers and the support staff and the interdependency that can generate performance and standards (Menjo et al.,2013). Research confirms that ICT assumption in schools leads to education expanding substantially and outcome of education that is helpful to teachers and students (Mingaine, 2003).

1.1.1 Information Communication and Technology

Okumbe (2006) states that management of school accounts is concerned with preparation of school budget and monitoring expenditure which is basically involved with maintenance of appropriate record keeping , accounting and auditing procedures. ICT can help managers to retrieve, evaluate information in relation to budgets. Budget making begins with formulating some fundamental assumptions that are pertinent to the institution which must be derived from the past experiences on the schools financial position (Mbithi, 2006). Review of previous year's budget is important. Did the school overspend? If so, in which vote heads? Administrators will identify the above issues with ease if the financial records are computerized. School enrolment is important during the budget making process. Students' databases will provide the information of the enrolment rate of that year and the projections for the coming year. A budget is a management tool as well as a planning tool. School managers can utilize it well when it is captured and stored in a computer.

1.1.2 Financial Management

Management of finances refers to the effectiveness and efficiency in management of funds in a way to achieve the goals of a company. Pandey (1995) envisioned financial management as "that activity of management that concerns planning and controlling of a company's financial resources.

Moreover, Roberts and Sikes (2011) discovered that as part of scheduling and control of finances, budgeting process in schools entails the readiness of numerous information sources to manage which can be made available through ICT inclusion in school management systems. Provision of budget as parts of school's accounting process are complex processes that require reliable, timely, comprehensible information to support management conclusions.

Makhanu and Kamper (2012) discovered that secondary schools' executives have exploited technology in forecasting and control of finances, which significantly enhanced discipline in managing resources. However, in Nairobi private secondary schools have not used as hoped. Elementary information on supplies and procurement is required by School managers to conclude planning and control of budget. On the other hand Makewa, Role and Nyamboga (2011) distinguished that school financial management information system would be simpler if ICT is adopted.

1.1.3 Secondary Schools

Secondary Schools are the second learning institution under Kenyan Education Curriculum. Their main goals are to groom students to make an optimistic influence to the societal advancement, and to obtain outlook of national devotion, self-worth, self-independence, support, flexibility, and logic of resolve and self-will (Sifuna, 1990).

Principals particularly of Secondary Schools in Nairobi are not playing the role of ICT application on financial management of Secondary Schools in Nairobi, due to some challenges they are facing. These challenges include cost of ICT facilities, weak infrastructures, inadequate power, lack of personnel competencies on ICT use and lack of technical support for their installation and repair. Ngugi (2012) observed that

ICTs is becoming useful for recording and scrutinizing data in management of finances for schools which includes budgetary provisions, expenses, fees payments for students and accounting in general. Moreover, Roberts and Sikes (2011) as part of scheduling and regulation of finances, schools' accounting process entails the readiness of numerous information's sources to manage which can be made available through ICT inclusion in school management systems. Provision of budget as parts of school's budgeting process are complex processes that require reliable, timely, comprehensible information to support management conclusions.

Makewa, Role and Nyamboga (2011) distinguished that school financial management information system would be simpler if ICT is adopted. Subsequently, Wagithunu, Muthee and Thinguri (2014), pointed out ICT was serious factor in advancing financial management information systems for schools through making the data available to guardians, learners and government authority.

1.2 Research Problem

The use of ICT in schools has received attention of many scholars. Pfluam (2004) in his study on ICT integration in secondary school observed that there were a lot of computers at Springdale Secondary School in Ohio City in the United States of America but no school administrators committed to ICT integration. As a result, White head, Jensen and Boschee (2003) have realized that the existing transfer towards adopting newest technology into classrooms is causing school administrators to reconsider school curriculum and strategies to scrutinize the influence of ICT incorporation on school administration.

Maki (2008) stipulates that amalgamation of ICT presents a critical part in supporting powerful and competent management and administration in the education sector. In her study on secondary schools in Cyprus, she noted that incorporation of ICT is essential for

personnel administration, student administration, resource administration, financial administration and general administration. From this study, Maki (2008), referring to a study by the European Commission in Cyprus disclosed that secondary schools in Cyprus amalgamated ICT as a teaching tool as well as a tool for school administration. These research papers have concentrated on the combination of ICT in secondary schools and other aspects in developed world but left out developing world like Kenya hence there is need to carry out the research in the Kenyan Secondary Schools.

Mingaine (2013) observed that in Kenya today many educational institutions, particularly secondary schools are implementing technology a lot in the area of ICT. Some schools are also implementing ICT in finance management, co-curricular activities and management of human resources. ICT can also have many advantages associated with financial management i.e. transparency and accountability of financial resources, efficient and effective use of finances thus it needs ICT understanding.

Oguta (2014) investigated application of ICTs in management of finances for schools on educational eminent standards management and convenient secondary school levels in Bungoma South Sub-County. The study showed that 40 percent of schools ICT is involved for SFM compared to 60 percent where ICT was never employed in SFM either fully or partially. Mbatia (2014) examined how ICT is used by principals of schools in Githunguri Sub-County for administration purposes. The findings revealed that ICT integration by school principals is rare in that they delegate matters requiring the use of ICT resources to school secretaries and deans of studies. Principals have therefore delegated ICT leadership to others in the schools instead of actually leading in ICT leadership.

Critically, most studies have been done on ICT application on administration of secondary schools however left out the element of ICT application in management of finances of Secondary Schools in Nairobi. Yet it is one of the applications traditionally computerized. Therefore the study looks into the ICT application and financial management of Secondary Schools in Nairobi. This study tackles the following questions of research study; what extent has ICT been applied in financial management in Secondary Schools in Nairobi ?, What are the challenges experienced in using ICT as a tool for financial management Secondary Schools in Nairobi ?, Is there a connection/relationship between ICT application and financial management performance of Secondary Schools in Nairobi ?.

1.3 Research Objectives

The objectives of the study specifically are:

i.   To determine the extent of use of ICT application in financial management of Secondary Schools in Nairobi.

ii.   To establish the challenges experienced in ICT usage as a tool for financial management of Secondary Schools in Nairobi.

iii. To ascertain the affiliation between ICT application and financial management performance of Secondary Schools Nairobi.

1.4 The Value of the Study

The study is of significance to a number of participants in education. These include School Management, Policy Makers, and scholars. The study will add new body of knowledge to existing contributions by providing more information through its contextual framework of Secondary Schools in Nairobi. Moreover, the study's findings are hoped to arouse curiosity to scholars and researchers who may embark on conducting further research on the Application of ICT in management of finances in other Counties in Kenya.

The study's results are wished to benefit school management in terms of shedding more light on the various areas that school managers can apply ICT. Research findings will help financial management in a number of ways. ICT enables financial transactions and the use of money, boost budgeting locally and abroad. For example a school will establish a website and market itself; by connecting with its alumni, donors and other well-wishers for funding of projects. These include; management of school facilities, teaching and learning resources and financial management.

The findings will be of significance to the policy makers. The measures on improving the application of ICT is hoped to form ground for policy makers to come up with ICT policy design and implementation strategies in Secondary Schools' financial management in Kenya. The results will be useful in understanding how to initiate ICT related innovations in schools, and especially how ICTs are used to manage school finances more commendably.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter documents the literature review from previous studies on globalization and financial performance. It entails a review on the foundational theories of the study, empirical studies, summary and the conceptual framework.

2.2 Theoretical Foundation

The following two theories will be used in this study; Diffusion of Innovation Theory and Technology Acceptance Model.

2.2.1 Technology Acceptance Model (TAM)

The theory clarifies the way clients embrace/acknowledge and utilize an innovation. Technological Acceptance Model was developed in 1989 by Davis .The theory that once a user is given additional invention, certain components sway their selection of how and when they will employ it. This integrates its obvious handiness and seen helpfulness. Different variables like clients, contenders, monetary components and outside impacts from providers are not taken in by (van Akkeren & Harker, 2003). TAM embraces settled causal chain of genuine conduct convictions, goal and disposition. This was produced by social clinicians from the proposition of envisaged action. In Davis' study, two vital parts are recognized; realized handiness and seen helpfulness (Davis, Foxall & Pallister, 2002). Borrowing from Davis (2002) Technology Acceptance theory, our research will bring out the seen convenience and seen helpfulness of ICT application in financial management in secondary schools in Nairobi.

2.2.2 Diffusion of Innovation Theory

Is whereby members of a social system have a noble idea communicated to them through certain channels (Rogers, 2003). The four components influencing the diffusion of new ideas name: channel of communication, time, the innovation and the social system. It's important to note that these innovations' sustainability they must be extensively accepted. An innovation's acceptance when mapped over a long time takes an S shape (Fisher, 1971). The curve begins with pioneers, prompt users, prompt majority, tardy majority and stragglers.

Decisions made in a social system largely determine the innovation's success. There five steps adopted namely: Knowledge – know about the innovation and continuously learn the same, Persuasion – Keenly learning more details of the innovation, Decision–Weighing up the virtues and drawbacks of the innovation and decide whether to adopt the innovation or not. Implementation –Assessment and confirmation of the usefulness of the innovation. i.e decide to continue using the innovation.

As noted by Rogers (2003), ICTs use in financial management in Secondary Schools within Nairobi was first assumed by few Secondary Schools. As these pacesetters spread the word, more and more schools became open to the adoption of ICTs use in Financial Management. This theory is applicable to the study in explaining the extent of ICT adoption in financial management for secondary schools in Nairobi.

2.3 Information and Communications Technology (ICT)

In Malaysia, Indonesia, Vietnam in Asia and Pacific, teachers in tertiary, secondary and primary levels are coached in ICTs usage in education with different extent. ICT was first integrated in education back in 1980 and made compulsory in the developed countries (Tinio, 2003). Old ICTs in education systems, (Waema, 2002), Philips and Merisotis (2002) state that when ICT integration in education was pointed out; educators embraced it despite of their demographic factors and declared it was a new educational technology.

A project reviewing ICTs experience in education found that Africa's projects follow patterns of high level initial motivation followed by a drop off in interests in stakeholders' interest (Farrell, 2007). Apart from South Africa, Egypt and Botswana the other African countries lag behind in modern information age. According to Amutabi (2004) the impact of technology has been slow and sporadic because of a number of challenges which African nations face. The failure by African countries to recognize and exploit development potentials and opportunities of the information and technological revolution could seriously undermine capacities of these countries to embark on sustainable social economic development efforts in the emerging age. According to Olembo (1999) ICT is an important landmark for transforming Africa and other countries into knowledge and information based societies and resultant economic prosperity.

The MoEST policy is to integrate and train systems of ICT education so as to prepare students and staffs of today for further economy growth. The Republic of Kenya policy is to see teacher training colleges, empower teachers to operate within all inclusive education so as to help achieve national and international goals of education by 2006 (Republic of Kenya, 2006).

2.4 Application of ICT in Schools

Integration of ICT refers to incorporation of ICT and technologies into the classroom delivering of content, learning process and school management with an aim of enhancing teaching and learning and school management process (Mutuma, 2005). This technology tools include: the internet, mobile phones, computers, among other tools and technologies. The use of ICT has a positive impact on education, it has contributed to the improvement of teaching and learning, increased productivity, improved record keeping, financial management, prompt communication with all the stakeholders, enhanced creativity among learners and teachers, it saves time, the benefits of ICT cannot be underestimated.

2.4.1 Use of ICT in Records Keeping

According to Okumbe (2001) student personnel services deals with elaborate programs of students accounting, maintenance of records, reporting of all information to various agencies, students' progress, racial and sex data for affirmative action and projections of student enrolments. This therefore calls for establishing and maintaining a system of record keeping.

The data includes enrolment statistics, statistics on teacher numbers, completion rates, transition rates and retention rates. Head teachers and class teachers need to have techniques of processing the same data (Mbithi, 2007). Student management system is basically a (SIS). Information on students' grades, discipline and family is efficiently managed through a Student Management System. Data of the students can be accessed by just feeding in the admission number of the student. Okumbe (2001)

notes that data on days present, days absent, credit earned, health problems need to be established and maintained. The main advantage of a computerized data base is the ability to quickly add, delete and locate specific records. Creation forms make it easier to enter and edit data as well.

2.4.2 Use of ICT in Maintaining Accounts

According to Mbithi (2007), the concept of managing school accounts differs from that of keeping school accounts .Management of school accounts is the responsibility of school administrator. It involves budgeting and supervision of officers who keep the school accounts. Okumbe (2006) states that management of school accounts is concerned with preparation of school budget and monitoring expenditure which is basically involved with maintenance of appropriate record keeping , accounting and auditing procedures. ICT can help managers to retrieve, evaluate information in relation to budgets.

Budget making begins with formulating some fundamental assumptions that are pertinent to the institution which must be derived from the past experiences on the schools financial position (Mbithi, 2006). Administrators will identify the above issues with ease if the financial records are computerized. School enrolment is important during the budget making process. Students' databases will provide the information of the enrolment rate of that year and the projections for the coming year. A budget is a management tool as well as a planning tool. School managers can utilize it well when it is captured and stored in a computer.

Management of school records also entails supervision of officers who keep the school accounts. Secondary schools usually employ accounts clerks to do this work under the supervision of head teachers. Several accounting documents are kept by

these officers. These include the fees registers, cash books, petty cash books, accounts records registers and receipt books, (Mbithi, 2006). ICT software and financial databases will improve efficiency in maintaining the books of accounts. Supervision by head teachers will also be easier with ICT. Preparation of final accounts for auditing can be done using computers. Income and expenditure statements and the balance sheets preparation can utilize computers and hence reduce the anomalies associated with manual systems.

2.5 Challenges Facing ICT Usage and Incorporation in Financial Management

Indeed, there could be some challenges facing the secondary school executives and bursars in use of ICT in schools. This could explain why many schools received these computers but do not use them for either financial management or administrative purposes. However, in line with the utilitarian values of ICT in schools, it is worthy of note that active role of the school principals is needed in order to realize as well as sustain ICT usage in the financial management of Secondary Schools in Nairobi . But it seems that the principals particularly principals of Secondary Schools in Nairobi are not playing these roles in schools due to some challenges they are facing.

2.5.1 Financial Limitations

ICT is certainly costly and in order to carry on with the prompt changes in software, hardware and networks in schools, financial plans are important. A study carried out in Cyprus showed that establishment of ICT calls for huge investments in infrastructure and maintenance (Papaoiannou, 2011). The study by Richardson (2008) revealed that Cambodia failed in adoption of ICT in schools because of financial

limitations for acquiring and maintaining ICT infrastructure. The above two studies shows that integration of ICT in management poses a challenge to the school leadership.

Moreover, Schools budget inadequately for maintenance of ICT usage and where ICT budget exists, they are dedicated to computer and software purchase. Farries (2001) observed that cost of ICT installation, maintenance and expansion remain hidden. These costs include training of teachers and technical staff.

2.5.2 Lack/ Inadequate ICT Infrastructure

Because of its newness, ICT adoption in an institution requires renovation and innovation of infrastructure. Samuel, (2007) conducted a research on "suitability of ICT resources and the best ICT Skills for instructors in amalgamating ICT tools in teaching and learning of English Language in Malaysian Schools" and confirmed that 81 percent showed schools had computer laboratories, 64 percent said personal computers were joined to the main server and percent were using computers. However most of computer laboratories were generally not used due to inadequacy in specifications and quality.

A study carried out by Bigum (2000), it is projected that less than 1 per cent of Africans utilize the internet. In Malawi, where most technology infrastructure is government controlled, very low levels of infrastructure for and use of ICTs are found and many government departments have themselves not yet acquired computers. Poor quantity and quality of infrastructure is another barrier in development of ICTs in schools. This affects information accessibility and makes information costly hence ICT usage becomes low.

2.5.3 Training in Information Communication Technology

Training equips users with skills and knowledge in using and adopting ICT. Samuel (2011) found that only 15 percent of participated lacked training in applying ICT in financial management. The paradox of these findings is that most were trained in ICT but didn't use the ICT resources available. Adomi, (2010), examined "factors related with low ICT application in Secondary schools in Nigeria". A purposive sample of teachers was obtained from Edo and Delta states. With a total 176 participants, 52 percent cited limited ICT manpower, 40 percent indicated lacking ICT skills while 75 percent from NEPAD e-schools lacked ICT familiarity and capability.

The results clearly show how important training in ICT usage and amalgamation in financial management is. Institutions' heads in Kenya are required to undertake on-job training in order to gain executive skills necessary for best management practices, (Wanjala, 2006). The results show that 73 percent of teachers were trained in ICT compared to 27 percent not trained. However differences came up in scope of training in ICT showing 57 percent had fundamental skills, 29 percent moderate and only 14 percent had advanced skills.

Training is mostly conducted using workshops covering various skills. Generally, training is viewed in terms of time spent on training and not the outcomes such as skills proficiency and experience in integrating internet into school curriculum. Training entails basic ICT literacy, emails basics, search engine and web design.

2.5.4 Resistance to Change

The dynamism brought by ICT development creates basis for immediate changes in resource running and developing of the system. A study carried out in Queensland State, Australia shows that, aged teachers are more resistant to change compared to the young counterparts. This is so because the aged believe in maintaining a status quo regardless of the changing times, (Romina, 2006). This shows that age influences one's effort to accept change. Study pursued to determine teachers' opinion on circumstances that enable using computers to teach mathematics in secondary schools in Malaysia.

2.6 Information and Communication Technology and Financial Management

Simple supplies and procurement information is an obligation to Heads of schools when concluding budget examination and control. On the other hand Makewa, Role and Nyamboga (2011) distinguished that school financial management information system would be simpler if ICT is adopted. Singh and Munianchi (2012) found that one of the factors that made administrators in Malasyia schools to adopt ICT tools in their schools was the foreseen advantages such as easier communication by use of short messaging of services (SMS) or through emails for schools which had connected to the internet, schools e-learning portal and school websites.

Regionally a research by Ziraba (2012) indicates that some schools in Uganda Central District had installed ICTs in their schools to support administration and management, ICT had contributed to improvement of efficiency in record management, grading

systems in schools and tracking students' academic progress. Menjo (2007) found that despite the challenges facing ICT integration in schools administration in Nandi North District, secondary school administrators' and teachers' understanding of ICT's use in the schools was very optimistic.

Charalambous and Loannou (2008) in their study in school administration among secondary school principals in Cypriot schools observed that Cypriot school administrators use ICTs in school administration. This implies that if school principals as leaders regularly use ICT in their administrative tasks they will encourage their teachers and bursars to integrate ICT tasks hence making their work easier.

Countries in Africa have lately started to show micro-economic soundness required for education development and therefore the need to integrate ICT in education administration is real more than ever before (Nduati & Bowman, 2005). One of the ways that this can be fully realized is by making our education system and especially school principals in secondary school completely integrate ICT in the administration of the affairs in their school.

According to Waema (2002) many countries in Africa like Egypt, Mauritius, Rwanda and South Africa have embraced thorough national rules and approaches to entirely integrate ICT in management. Farrell and Isaac (2007) on a study on survey on ICT and Africa's education, notes that some African countries have made efforts to integrate ICT in education management. For instance, South Africa has established a comprehensive range of Educational Management Information System (EMIS)

platforms that cover the acquisition, processing, dissemination and reporting of educational data at the national level and at the different education strata. The government has also come up with ICT policies. These policies have facilitated proper management of schools in South Africa.

2.7 Empirical Review

A study was conducted by Grey (2000) on ICT application in finance administration in a firm in London. The verdicts of the study disclosed that most institutions use accounting software packages to make statutory accounts and reports for bankers and management, as well as to help with the day to day control of its finances. The study established that spreadsheets were a used by departments of finance to enable manage cash flow.

According to Grey (2000), use of ICT enables schools advantageously of online banking which enables them to transact in prompt time, saving time and helping certify that payments due have been honoured and accepted, and also to operate the bank account within any agreed overdraft limit.. In school set up, ICT has widely been used in financial management. Accounting software and spreadsheets like MS Excel have been used widely in financial accounting (Karl, 2000.However, the extent to which ICT has been used to facilitate financial administration in public schools remains to be unclear.

Devon (2004) eludes ICT enables sharing of data electronically. This calls for secondary school administrators to integrate ICT in their systems. The introduction of Free Primary Education in 2006 (FPE) and subsequently the Secondary subsidized Education has made schools to receive a large number of students thereby generating a lot of data. Mbithi (2007) states that for educational planners to succeed they need a

lot of assistance and co-operation from institutional heads, classroom teachers and field officers in providing reliable data regarding the current education in the nation.

According to Cheryl (2005), ICT application has efficient and safer ways of carrying out financial transactions over a short period of time. School administrators can adopt the use of ICT in paying of their staff members, making orders for school supply. This enables the school administration to be able to keep record of all the transactions done. Thus they are able to gauge themselves on the basis of the amount spent and the amount received. This in turn gives the school executive ability to gauge how fit they are in terms of Finance.

Okumbe (2006) states that management of school accounts is concerned with preparation of school budget and monitoring expenditure which is basically involved with maintenance of appropriate record keeping , accounting and auditing procedures. ICT can help managers to retrieve, evaluate information in relation to budgets. Budget making begins with formulating some fundamental assumptions that are pertinent to the institution which must be derived from the past experiences on the schools financial position.

Mbithi (2006) states, that the onset of information super highway at the close of 20th century brought a major global revolution to the field of communication. The revolution introduced services such as internet, e-mail and mobiles which have improved communication basically in the rural areas of countries developing. These new communication methods have a great impact on education. Consultation is indispensable for functioning in secondary schools. The consultation between tutors and learners, between tutors and guardians and among tutors aids to assist learners as they explore Secondary School and strategize for their expectation.

According to Almiron (2007), utilizing ICT in financial deals made by the school helps in creating transparency. This prevents most of the school administrators from misusing the financial resources that are available in the school and thus channeling the resources to their appropriate designations.

According to World Bank, ICT plays a critical role in ensuring financial management transparency According to a study by Razae, Elam and Sharbatoghlie (2009), entitled "Continuous Auditing: the Audit of the Future Manage", it can be witnessed that the purchases records, financial plans, donation management, assessments and other financial deals performed by organization requires right records for citation resolve. The study noted that in various institutions, these records were maintained in hardcopies ICTs were introduced. Fortunately, ICTs accessibility and amalgamation into sectors of finance has made it promising and comfortable for finance officials to sort out all deals on-line via the system called an e-accounting.

Eyo (2012) noted that the use of ICTs dramatically increased the speed of communication in organization. Intranet is an internal network set up by an organization to share data online (Oleavy, 2006). This enables communication to go on within the organization without involving physical movement. The intranet enables faster delivery of information to different departments. It also reduces distortions and duplication of information.

Matovu (2012) states that with ICT data can be shared electronically hence reducing workload. This calls for secondary school administrators to integrate ICT in their managerial system. The introduction of Free Primary Education in 2006 (FPE) and subsequently the Secondary subsidized Education has made schools to receive a large number of students thereby generating a lot of data.

A study was conducted by Grey (2000) on ICT application in finance administration in a firm in London. The study's results disclosed that most institutions have software packages for accounting to aid generating legislative accounts and reports for bankers and executives, as well as to assist with the daily control of its finances. Sage is the most popular package used by small and medium businesses in UK. Sage also has payment and debt management modules. The study established that spreadsheets were also widely utilized by departments of finance departments to manage cash flow.

2.8 Summary of Literature Review and Research Gaps

Various theoretical frameworks have attempted to explain the concept of information, communication and technology. Two theories on information, communication and technology have been discussed in this theoretical review. The theories are namely: open system theory, technology acceptance model theory and the diffusion of innovation theory. The concept of information, communication and technology, application of ICT in school and the affiliation between ICT and financial management have also been discussed in this section. Several empirical studies have been conducted both internationally and locally on ICT and financial management. The findings of these studies have also been discussed in this chapter

Most of the studies undertaken on the relationships between ICT and financial management covered international markets with very few carried out locally. Moreover, findings from the studies reveal contradictions and inconsistency depending on the markets and analytical model adopted. Local studies done are not conclusive in their findings and this is the gap that the study intends to fulfill.

2.9 Conceptual Framework

To determine relationship, conceptual framework was developed. In the conceptual framework ICT application is the Independent variable and Financial Management performance is Dependent Variable.
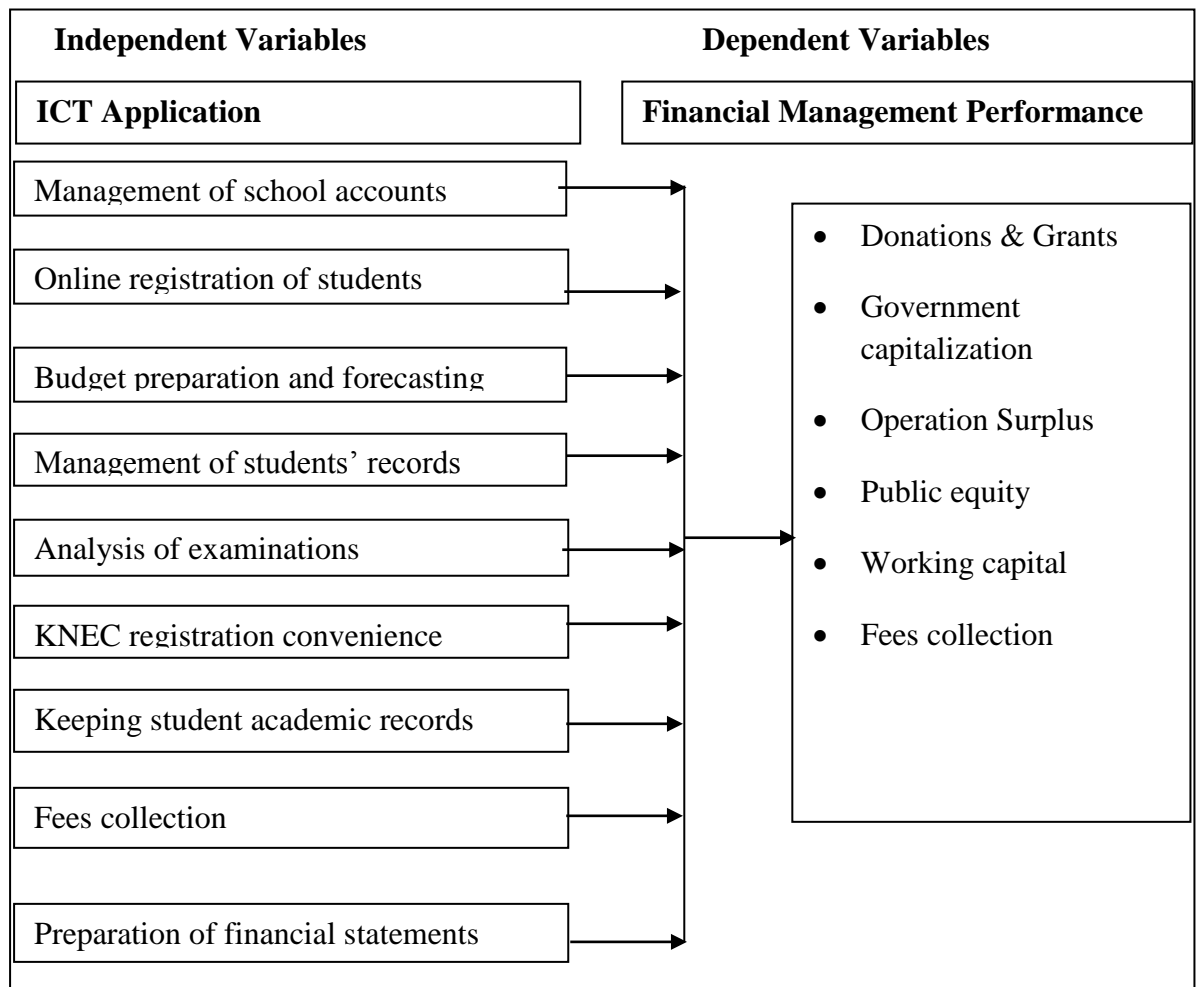
Figure 2.9 Conceptual Framework

Source: Researcher (2017)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This phase entails the methods and procedures used to carry out the research. It presents the designs of the study, population targeted, instruments used to collect the data, procedures and techniques used to analyze data.

3.2 Research Design

This study adopted a descriptive research design in its attempt to establish objectivity. Descriptive research design was appropriate for this study in establishing how and what, phenomenal status and association of variables therein ICT application and financial management of Secondary Schools in Nairobi. Descriptive research was best for demonstrating the relationship between ICT application and financial management.

3.3 Population

The study's population was all the secondary schools (both private and public) in Nairobi. There are 171 secondary schools in Nairobi (Schools Net Kenya, 2013).

3.4 Sampling Design

A sample of 51 schools was selected. As per Borg and Gall (2003) as a minimum 30% of the total population is typical. Hence, 30% of the population which can be accessed is enough for the sample size. With this the sample size was determined as follows;

N=30%*171

N=51   Where N is the sample size

This study employed snowball sampling method to select a sample of fifty one Secondary Schools in Nairobi. A potential secondary school was nominated which then gave referrals of other secondary schools that were using ICT for financial management. Broadhead (1978) notes that snowball sampling is mostly used in qualitative sociological research specifically in the study of deviant behavior. The technique was applied in a study by Whyte Street Corner society (1955) to study a gang in Glasgow.

3.5 Data Collection

The research employed primary data that was collected with use of questionnaires that were administered by the use of self-administration and "drop-and-pick later" processes where appropriate.The preferred respondents of the study are school bursars and head teachers who are deemed appropriate because of their experience and knowledge in using ICT in management of schools. The questionnaire is divided into four sections; Section A concerns Data on extent of use of ICT applications available in school financial management, Section B was about Data on challenges faced in using ICT as a tool for school financial management, Section C focused on Data on ICT application and school financial management performance and Section D entailed Data on Demographic Information.

3.6 Data Analysis

The collected data was tabulated, summarized and interpreted by use of descriptive measures. Tables were used for presentation of the findings. Demographic data was analyzed by use percentages and frequencies. Data on the extent of ICT application's usage in management of finances in secondary schools in Nairobi and data on challenges experienced in use of ICT as a tool for management of finances in secondary schools in Nairobi was analyzed by use of Mean and Standard deviation.

To reveal the connection between ICT application and financial management performance of secondary schools in Nairobi data was analyzed using a multiple linear regression model whereby the β coefficients for each independent variable generated from the model were subjected to a z-test, in order to test each of the hypotheses under study.

The regression model used to test is shown below:

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$

Where Y = Financial Management

α = Constant term

β_1 = Beta co-efficient

X_1 = Analysis of examinations

X_2 = Fee collection

X_3 = Preparation of financial statements

X_4 = Keeping Students records

ε = Error term

The model gives a broader understanding of the link between the independent and the dependent variables and explores the nature of their association.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

OF THE RESULTS

4.1 Introduction

This phase focused on the presentation, analysis and interpretation of data obtained in the study using both inferential and descriptive statistics. Frequencies and percentages were used to explain the responses to the questionnaires. Conclusions and recommendations were made on chapter five depending on the analyzed data; it captured the study's demographic and findings of every objectives of the study. This survey was done in fifty one secondary schools both governmental and non-governmental schools in Nairobi Kenya. Fifty one (N=51) respondents participated in this study where by all 51 questionnaires were filled and returned which presents 100% rate of response. This rate of response is very fulfilling for making study's conclusions. Mugenda and Mugenda (2003) observed that a 50% rate of response is enough, 60% worthy, while 70% rated excellent.

The recorded excellent rate of response is attributable to the procedures of data collection, where the researcher pre-informed the possible schools of the anticipated survey, made use of a self-governed questionnaire where the respondents finalized and these were gathered shortly after.

4.2 Demographic Characteristics

This entailed a general analysis of the data on demographic that was acquired from the respondents which included;-respondents' age, education level, job title, work experience, number of students, number of employees and duration the institution has been in operation.

4.2.1 Age

The respondents were requested to provide their age and was analyzed as shown in Table 4.2.1.

Table 4.2.1 Age of the Respondents

Years	Frequency	Percentage
Less than 25 years	5	9.8
26-30	6	11.8
31-35	19	37.3
36-40	15	29.4
41-45	4	7.8
46-50	2	3.9
Total	**51**	**100.0**

Table 4.2.1 shows the respondents age, majority 19 (37.3%) of the respondents aged amid 31-35 years, 15 (29.4%) aged amid 36-40 years, 6 (11.8%) amid 26-30 years, 5 (9.8%) were less than 25 years of age, 4(7.8%) aged amid 41-45 years and 2 (3.9%) aged amid 46-50 years.

4.2.2 Level of Education

The data on education level were collected and analyzed; the results and interpretation are shown in Table 4.2.2.

Table 4.2.2: Level of Education

Education level	Frequency	Percentage
Diploma in education	3	5.9
Bachelor of education degree	27	52.9
Master degree in education	12	23.5
PhD	5	9.8
Bachelor of science in computer science	4	7.8
Total	**51**	**100.0**

Table 4.2.2 expresses the level of education of the respondents, majority of the respondents 27 (52%) had attained bachelor degree in education, 12 (23.5%) had master degree in education, 5(9.8%) attained PhD, 4 (7.8%) attained Bachelor of Science in computer science while 3 (5.9%) had diploma in education. The high level of education of the respondents revealed that the respondents had enough knowledge on the topic under study.

4.2.3 Job Title

Data on job title of every respondents were collected and analyzed the results were showed in Table 4.2.3.

Table 4.2.3: Job Title of the Respondents

Job title	Frequency	Percentage
Principal	38	74.5
Bursar	13	25.5
Total	**51**	**100.0**

Best part of the respondents 38 (74.5%) were schools principals while only 13 (25.5%) were school bursars

4.2.4 Work experience

Data on work experience were collected and analyzed as per Table 4.2.4.

Table 4.2.4: Work Experience

Duration	Frequency	Percentage
Below 5 years	2	3.9
5-10 years	1	2
11-15 years	27	52.9
16-20 years	20	39.2
Above 25 years	1	2.0
Total	**51**	**100.0**

Table 4.2.4 showed the work experience of the respondents. Majority of the respondents 27 (52.9%) were experienced amid 11-15 years, 20 (39.2%) were experienced amid 16-20 years, 2 (3.9%) had below 5 years while only 1 (2%) had above 25 years work experience. This suggests that they were experienced enough to articulate the issues that the study sought to establish.

4.2.5 Number of Students per School

Table 4.2.5 shows the number of students per school according to data collected.

Table 4.2.5: Number of Students

Number of Students	Frequency	Percentage
Below 500	9	17.6
500-1000	30	58.8
1000-1500	9	17.6
1500-2000	3	5.9
Total	**51**	**100.0**

According to survey most of the schools 30 (58.8%) under study were having amid 500-1000 number of students, 9 (17.6%) had below 500 students, 9 (17.6%) had amid 100-1500 number of students and only 3 (5.9%) had amid 1500-2000 number of students.

4.2.6 Number of Employees in Schools

Table 4.2.6 shows data on the number of employees collected in various secondary schools

Table 4.2.6: Number of Employees

Number of employees	Frequency	Percentage
Below 50	10	19.6
50-100	25	49.0
100-150	8	15.7
150-200	8	15.7
Total	**51**	**100.0**

Most of the schools 25 (49%) had amid 50-100 employees, 10 (19.6%) had below 50 employees, while 8 (15.7%) of the school had amid 100-150 employees.

4.2.7 Duration at Which School has Been Operating

Table 4.2.7 shows the duration at which various schools has been operating.

Table 4.2.7: Duration at which School has Been Existing

Duration	Frequency	Percentage
Below 5 yrs	5	9.8
5-10 Yrs	19	37.3
11-15 Yrs	15	29.4
16-20 yrs	12	23.5
Total	**51**	**100.0**

Table 4.2.7 shows the duration at which the institution has been in operation. Most of the schools 19 (37.3%) have been in operation for amid 5-10 years, 15 (29.4%) for amid 11-15 years, 12 (23.5%) for amid 16-20 years while only 5 (9.8%) have been in operation for the last 5 years.

4.3 Extent of Use of ICT Applications Available in School Financial Management

This section deals with the first goal of the study which is determining the extent of ICT application usage in management of finances for Secondary Schools in Nairobi. The respondents were given multiple application of ICT in school financial management to rates using 5 point scales; 1-Not at all, 2-Little extent, 3-moderate extent, 4-great extent, 5-very great extent. Data was analyzed in means and standard deviations. Means were interpreted in 5-point scale as follows;

(<1.5) – Not at all, ($>=1.5$ to 2.4) - Little extent, ($>=2.5$ to 3.4) - Moderate extent, ($>=3.5$ to 4.4) - Great extent and ($>=4.5$) Very great extent

Table 4.3: ICT Application in School Financial Management

ICT applications	Not at all	Little extent	Moderate extent	Great extent	Very great extent	Mean	Std. Deviation
Analysis of examinations			2(3.9%)	17(33.3%)	32(62.7%)	4.59	.572
Preparation of financial statements		2(3.9%)	2(3.9%)	14(27.5%)	33(64.7%)	4.53	.758
Keeping student academic records		2(3.9%)	1(2%)	24(47.1%)	24(47.1%)	4.37	.720
Management of school accounts			1(2%)	37(72.5%)	13(25.5%)	4.24	.473
Management of students records		2(3.9%)	4(7.8%)	29(55.8%)	16(30.8%)	4.16	.731
Budget preparation and forecasting		2(3.9%)	12(23.5%)	31(60.8%)	6(11.8%)	3.80	.693
KNEC registration convenience	2(3.9%)	2(3.9%)	17(33.3%)	19(37.3%)	11(21.6%)	3.69	.989
Online registration of students	5(9.8%)	4(7.8%)	7(13.7%)	31(60.8%)	4(7.8%)	3.49	1.08
Fees collection	2(3.9%)	21(41.2%)	9(17.6%)	11(21.6%)	8(15.7%)	3.04	1.20

Table 4.3 shows various applications of ICT in financial management in various secondary schools. The results shows that majority of secondary schools use ICT in analysis of examinations at average rating of 4.59 (very great extent) at standard deviation of 0.572, followed by keeping student academic records at average rating of 4.53 (very great extent), keeping student academic records 4.37 (great extent) and standard deviation of 0.720, management of school accounts at 4.24 (great extent), budget preparation and forecasting at 3.8 (great extent), KNEC registration convenience at average rating of 3.69 (great extent), online registration of students at average rate of 3.49 (moderate extent) and finally fees collection of at average rating of 3.04 (moderate extent). The high average mean shows that majority of Nairobi's secondary schools had already adopted ICT in various operations in the school.

4.4 Challenges Experienced in Use of ICT as a Tool for Financial Management

This section focused on second objective of the study; to establish the challenges experienced in ICT usage as a tool for financial management of Secondary Schools in Nairobi. Various aspects of the challenges were rated by the respondents using 5 point scales. 1-Not at all, 2-Little extent, 3-moderate extent, 4-great extent, 5-very great extent. Data was analyzed in means and standard deviations. Means were interpreted in 5-point scale as follows; (<1.5) – Not at all, (>=1.5 to 2.4) - Little extent, (>=2.5 to 3.4) - Moderate extent, (>=3.5 to 4.4) - Great extent and (>=4.5) Very great extent

Table 4.4: Challenges Experienced in Use of ICT

Challenges	Not at all	Little extent	Moderate extent	Great extent	Very great extent	Mean	Std. Deviation
Lack of funds to purchase up to date ICT facilities	2(3.95%)	1(2.0%)		41(80.4%)	7(13.7%)	3.98	.761
Lack of data backup devices		8(15.7%)	9(17.6%)	31(60.8%)	3(5.9%)	3.57	.831
Lack of reliable internet connection	10(19.6%)	12 (23.5%)	5(9.8%)	8(15.7%)		3.10	1.51
Lack of expertise skills in ICT	3(5.9%)	23 (45.1%)	5(9.8%)	12(23.5%)	8(15.7%)	2.98	1.25
Lack of adequate training on ICT among staff	11(21.6%)	17 (33.3%)	6(11.8%)	6(11.8%)	11(21.6%)	2.78	1.47
Shortage of qualified teachers in ICT	10(19.6%)	20(39.2%)	9(17.6%)	8(15.7%)	4(7.8%)	2.53	1.21
Insecurity in the school premises	31(60.8%)	1(39.2%)	4(7.8%)	3(5.9%)	12(23.5%)	2.29	1.74
Poor management of tools and facilities	25(49.0%)	7(13.7%)	9(17.6%)	10(19.6%)		2.08	1.21
Teachers resistance to adopt ICT	26(51.0%)	5(9.8%)	11(21.6%)	9(17.6%)		2.06	1.21
Lack of power supply	23(45.1%)	15(29.4%)	5(9.8%)	8(15.7%)		1.96	1.09
Use of outdated computers	33(64.7%)	10(19.6%)	4(7.8%)	4(7.8%)		1.59	.942

Table 4.4 shows the various challenges faced by several secondary schools in Nairobi in their attempts to adopt ICT. Lack of funds to purchase up to date ICT facilities were major challenge faced by several schools at a great extent (3.98), followed by lack of data backup devices at a great extent (mean of 3.57), lack of reliable internet connection at moderate extent (mean of 3.10), lack of expertise skills in ICT at

moderate extent (a mean of 2.98), inadequate training on ICT among staff at moderate extent (a mean of 2.78), shortage of qualified teachers in ICT at moderate extent (a mean of 2.53). However according to the study the following were least challenges in better part of the secondary schools in their attempt to use ICT; insecurity in the school premises little extent (a mean of 2.29), poor management of tools and facilities at a mean of 2.09, teachers resistance to adopt ICT at a mean of 2.06, lack of power supply at a mean of 1.96 and finally used of outdated computer at a mean of 1.59.

4.5 School Financial Management Performance

This section deals with objective three which is determining the relationship amid ICT application and financial management performance of Secondary Schools Nairobi. Data was analyzed in means, standard deviations and regression analysis. Means were interpreted in 5-point scale as follows; (<1.5) − Not at all, (>=1.5 to 2.4) - Little extent, (>=2.5 to 3.4) - Moderate extent, (>=3.5 to 4.4) - Great extent and (>=4.5) Very great extent

Table 4.5: Performance Indicator

Performance Indicator	Not at all	Little extent	Moderate extent	Great extent	Very great extent	Mean	Std. Deviation
Increased working capital	2(3.9%)	8 (15.7%)	12 (23.5%)	26 (51.0%)	3(5.9%)	4.39	.960
Increased public equity	4(7.8%)	4(7.8%)	21 (41.2%)	19 (37.3%)	3(5.9%)	4.25	.976
Improved operation surplus	4(7.8%)	14 (27.5%)	19 (37.3%)	11 (21.6%)	3(5.9%)	3.90	.632
Increased government funding	6(11.8%)	17 (33.3%)	13 (25.5%)	14 (27.5%)	1(2.0%)	3.74	.715
Increased donations & grants	14 (27.5%)	25 (49.0%)	9(17.6%)	3(5.9%)		3.01	.836

Table 4.5 shows various elements of school financial management performance as a result of using ICT. Increased working capital was one of the major performance indicator with a mean of 4.39 (great extent), followed by increased public equity at average mean of 4.25 (great extent), improved operation at a mean of 3.90 (great extent), increased government funding at a mean of 3.74 (great extent) and lastly increased donation at a mean of 3.01 (moderate extent).

4.6. Relationship amid ICT and Financial Management Performance of Schools in Nairobi

To determine the connection amid ICT application and Financial Management Performance of Secondary Schools in Nairobi, a multiple linear regression was done and the results were reported as; Model summary, ANOVA and Coefficients

The regression model was as follows:

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

Table 4.6.1: Model Summary[b]

Model Summary shows regression analysis amid independent variables.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.577[a]	.333	.187	.85375	.333	2.277	9	41	.036	2.705

From Table 4.6.1 R (correlation value) is 57.7%, which shows high positive relationship amid the independents variables and dependent variable the value of

coefficient of determinant (R^2) is 33.3% this model is capable of explaining 33.3% of the variability in School financial management performance(Y).

Table 4.6.2: ANOVA[a]

To establish the significance of the regression model ANOVA was done.

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	14.939	9	1.660	2.277	.036[b]
Residual	29.884	41	.729		
Total	44.824	50			

From Table 4.6.2 an f-significance value of $p < 0.05$ was established. This demonstrates that the model of regression has a less than 0.036 likelihood (probability) of predicting wrongly.

Table 4.6.3: Regression Coefficient

This was performed to obtain the models coefficients

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1 (Constant)	4.197	2.564		1.637	.109		
Management of school accounts	.258	.332	.129	.778	.441	.591	1.691
Online registration of students	.275	.156	.315	1.765	.035	.509	1.964
Budget preparation and forecasting	.082	.229	.060	.361	.020	.580	1.724
Management of students records	.248	.248	.191	1.001	.323	.445	2.250
Analysis of examinations	.402	.245	.243	1.641	.008	.744	1.344
KNEC registration convenience	.356	.200	.372	1.781	.042	.373	2.681
Keeping student academic records	.106	.269	.081	.394	.095	.388	2.577
Fees collection	.188	.181	.238	1.038	.305	.309	3.231
Preparation of financial statements	.135	.229	.108	.590	.559	.485	2.062

From table 4.6.3 the following regression analysis was obtained:

$$Y = 4.197 + 0.258X_1 + 0.275X_2 + 0.082X_3 + 0.248X_4 + 0.402X_5 + 0.356 X_6 + 0.106 X_7 + 0.188 X_8 + 0.135 X_9$$

Whereby, Y is School financial management performance. The model illustrates that holding all variables constant (zero), school financial management performance value would be 4.197. However, when other factors are held constant, a unit increase in each variable (school financial management indicators) would lead to increase in school financial management performance with various coefficient values as indicated in the equation above. From the above all the nine performance indicators were significant since their value is greater than 0.05. Therefore, the regression equation remains the same;

$$Y = 4.197 + 0.258X_1 + 0.275X_2 + 0.082X_3 + 0.248X_4 + 0.402X_5 + 0.356 X_6 + 0.106 X_7 + 0.188 X_8 + 0.135 X_9$$

4.7. Discussion of the Results

The results shows that majority of secondary schools have adopted ICT in their daily financial management operations. This agrees with the study conducted in London by Grey (2000) that revealed that most institutions use accounting systems to generate legislative accounts and reports for executives and also to assist in daily control of finances. This study also revealed that financial limitation is the major challenge in ICT adoption. This compares well with a study by Richardson (2008) which revealed that Cambodia failed in adoption of ICT in schools because of financial limitations for acquiring and maintaining ICT infrastructure. Finally, the study shows that there exist a positive connection amid ICT and management of finances for Secondary School in Nairobi this echoes the study done by Makewa, Role and Nyamboga (2011) which

distinguished that school financial management information system would be much simpler if ICT is adopted. Also Ziraba (2012) noted that in Central Uganda Districts, schools that installed ICTs experienced efficiency in record management, grading systems in schools and tracking learners' performance in academics.

CHAPTER FIVE

SUMMARY OF RESEARCH FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This phase synthesizes the entire report and contains summary of verdicts, conclusions arrived at and recommendations for advanced study.

5.2 Summary of Findings

The following were the summary of the findings of the research upon which the deductions and commendations of the study were made. This study was guided by three specific objectives and it is on this basis that data analysis was done. The findings in relation to each of these objectives were as follows.

5.2.1 Extent of ICT Application Usage in Management of Finances for Secondary Schools

It was evidence that majority of secondary schools in Nairobi use ICT applications in financial management of the schools, the results show that majority of secondary schools use ICT in analysis of examinations since it is very easy and fast when dealing with huge number of students. Keeping student's record has been very easy and more secure with ICT than the manual way of keeping students records hence most secondary schools adopt the use of ICT in keeping students records. Other ICT application according to the finding of this research which has been widely practiced in most secondary schools were; management of school accounts, budget preparation and forecasting, KNEC registration convenience, online registration of students and finally fees collection.

These findings concur with study done by several authors. Okumbe (2001) notes that the main advantage of a computerized data base is the ability to quickly add delete and locate specific records. Also Mbithi (2007) appreciated the use of ICT in running various departments within the schools, he noted that ICT is very crucial in managing school account.

5.2.2 Challenges Experienced ICT Usage as a Tool for Financial Management of Secondary Schools.

Various challenges were faced by several secondary schools in Nairobi in their attempts to adopt ICT. Lack of funds to purchase up to date ICT facilities was one of the major challenge faced by several schools, followed by lack of data backup devices, lack of reliable internet connection at, lack of expertise skills in ICT, inadequate training on ICT among staff since most teachers lack enough skills in ICT related issues. However according to the finding the following were not a major challenges in majority of the secondary schools in their attempt to use ICT; insecurity in the school premises since most of the schools outsource security services from private security firms, poor management of tools and facilities, though some few teachers showed resistance to adopt ICT majority of them were eager to learn and use ICT, lack of power supply and finally used of outdated computer.

This study concur with the study done by Papaoiannou, (2011) in Cyprus which showed that establishment of ICT calls for huge investments in infrastructure and maintenance The study by Richardson (2008) revealed that Cambodia failed in adoption of ICT in schools because of financial limitations for acquiring and maintaining ICT infrastructure. The above two studies shows that integration of ICT in management poses a challenge to the school leadership.

5.2.3 School Financial Management Performance

By estimating overall school financial performance as a results of using ICT the finding shows that working capital has increased due to ICT application, followed by increased in public equity, increased in government funding and finally increased in donation. However the overall ratings of the school financial performance indicator were above average.

5.2.4 Relationship amid ICT Application and Financial Management Performance of Secondary Schools.

Regression analysis were used to find the connection amid ICT application and school financial performance among secondary schools, from the regression analysis all the nine variables were found significant since their p-value were greater than 0.05. The value of R (correlation value) was 57.7%, which shows high positive connection amid the independent variables and dependent variable. The value of coefficient of determinant (R^2) is 33.3% indicating that this model is capable of explaining 33.3% of the variability in School financial management performance(Y). Also Analysis of variance (ANOVA) shows that the model of regression has a less than 0.036 likelihood (probability) of predicting wrongly.

5.3 Conclusion

The study concludes that several secondary schools within Nairobi had made tremendous attempt in adopting ICT application in their everyday operations, most departments like account office/bursars office, exams department relying too much in ICT. The study also concludes that although most secondary schools within Nairobi already adopted ICT in their operations, there were several challenges facing them, inadequate funds to purchase all modern computers and computers software as well as

providing internet coverage was a major challenge to most schools. However security has not been a major problem to most of the schools. Finally the study concludes that there was positive influence of ICT on the school financial performance since ICT usage in secondary schools has improved school financial management performance according to the study.

5.4 Recommendations

The following recommendations were made; The government should ensure that they allocate specific funds for public schools to facilitates the implementation of ICT and knowledge of computer in Schools, Teacher Service Commission should ensure that they includes ICT short courses in their curriculums to ensure teachers were well equipped with ICT knowledge. And Principals should encourage use of ICT in various departments.

5.5 Limitations of the Study

The study was limited to time since at the time the research was being conducted most of the secondary schools were preparing for second term examinations. To some extent, this might have affected the responses given as the respondents did not have enough time to answer to the questionnaires. It was also expensive for the researcher to drop and pick questionnaires to all the 51 schools that are located in different part of Nairobi.

5.6 Suggestion for Further Studies

Since this paper was on ICT influence on financial performance of secondary schools in Nairobi; similar paper should be done on other counties in Kenya for comparison, similar studies should also be done on the primary school and the other studies should be on the influence of ICT to general performance of secondary schools students.

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APPENDICES

APPENDIX I: QUESTIONNAIRE

This questionnaire has been designed to collect information on ICT application and financial management of Secondary Schools in Nairobi. Please read carefully and answer the questions as honestly as possible. The information gathered will be used purely for the purpose of academic research and will be treated with utmost confidence.

Instructions

1. Tick appropriately in the box or fill in the space provided.

2. Feel free to give further relevant information to the research.

SECTIONA: EXTENT OF USE OF ICT APPLICATIONS AVAILABLE IN SCHOOL FINANCIAL MANAGEMENT

To what extent does the school use ICT in financial management? Indicate for each of the following applications in the scale of 1 to 5

Use: 1- Not at all   2-Little extent   3-Moderate extent

4- Great extent   5- Very great extent

ICT Application	1	2	3	4	5
1. Management of school accounts					
2. Online registration of students					
3. Budget preparation and forecasting					
4. Management of students records					
5. Analysis of examinations					
6. KNEC registration convenience					
7. Keeping student academic records					
8. Fees collection					
9. Preparation of financial statements					

SECTIONB: CHALLENGES FACED IN USING ICT AS A TOOL FOR SCHOOL FINANCIAL MANAGEMENT

To what extent has the school faced each of the following challenges in ICT application in financial management? Indicate for each of the following challenges in the scale of 1 to 5

Use: 1- Not at all 2-Little extent   3-Moderate extent

4- Great extent   5- Very great extent

Challenges	1	2	3	4	5
1. Lack of adequate training on ICT among staff					
2. Lack of reliable internet connection					
3. Lack of power supply					
4. Use of outdated computers					
5. Lack of expertise skills in ICT					
6. Lack of funds to purchase up to date ICT facilities					
7. Poor management of tools and facilities					
8. Teachers resistance to adopt ICT					
9. Insecurity in the school premises					
10. Shortage of qualified teachers in ICT					
11. Lack of data backup devices					
12. Others(specify)					

In your own opinion, which are some of the other challenges experienced in the use of ICT as a tool for school financial management?

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

…………………………………………………………………………………………

SECTION C: ICT APPLICATION AND SCHOOL FINANCIAL MANAGEMENT PERFORMANCE

a) To what extent has the school performed according to each of the following performance indicators. Indicate for each of the following performance indicators in the scale of 1 to 5

Use: 1- Not at all   2-Little extent   3-Moderate extent

4- Great extent   5- Very great extent

Performance Indicator	1	2	3	4	5
1. Increased Donations & Grants					
2. Increased Government funding					
3. Improved Operation Surplus					
4. Increased Public equity					
5. Increased Working capital					
6. Prompt fees collection					

b) In terms of percentage, indicate how ICT application has improved financial management performance in your school for each of the following performance indicators;

Performance Indicator	Percentage %
1. Increased Donations & Grants	
2. Increased Government funding	
3. Improved Operation Surplus	
4. Increased Public equity	
5. Increased Working capital	
6. Prompt fees collection	

SECTION D: DEMOGRAPHIC INFORMATION

I. Background Information of the Respondents

1. Your age bracket in years?

    25 years or less ( ) 26-30years ( )   31-35 years ( )   36-40) years ( )

    41-45 years ( )   46-50 years ( )   51 years or more ( )

2. Your highest level of education?..

…………………………………………………………………………………...

3.Which job titles you hold in the school?

    Principal ( ) Bursar ( )

4. How long have you worked with the organization?

   Below 5 years ( ) 5 to 10 years ( ) 11 to 15 years ( )

   16 to 20 years( )   20 to 25 years ( ) above 25 years ( )

II. Background Information of the Institution

1. How many students do you have in your school? ……………………
2. How many employees do you have in your school? ....
3. How long has the institution been in operation?

Below 5 years ( ) 5 to 10 years   ( ) 11 to 15 years ( )

16 to 20 years ( ) 20 to 25 years   ( ) above 25 years   ( )

APPENDIX II

THE SECONDARY SCHOOLS IN NAIROBI

1. Aquinas Secondary School
2. Highway Secondary School
3. Huruma Girls' Secondary School
4. Our Lady of Mercy Secondary School
5. Ofafa Jericho Secondary School
6. Nileroad Secondary
7. Makongeni High- School
8. St Anne's Girls' Sec School
9. St Patrick Nairobi Mixed Secondary
10. Eastleigh Secondary School
11. Ngara Girls' Secondary School
12. St Teresa's Girls Secondary School
13. Lang'ata Secondary School
14. Mutuini Secondary School
15. Ruaraka Secondary School
16. Girls Secondary School- Nairobi
17. Olympic Secondary School
18. Soweto Baptist Secondary School
19. Brooklynn High
20. Beth Mugo Secondary School
21. Anointed Secondary School
22. New Mwangaza Mixed Secondary School
23. Aga Khan Secondary School
24. Brooklyn Secondary School
25. Gladys Girls Secondary School
26. Good Samaritan Secondary School
27. Good Shepherd Secondary School
28. Green Ville Secondary School
29. Kayole Girls Secondary School
30. Malezi Secondary School
31. Ngeip .A. G Secondary School
32. Outering High
33. Riruta Central Secondary School
34. St Anthony Secondary School
35. St Benedict Thome Boys Senior School
36. St Edwards Secondary School
37. St Tito Secondary School
38. Silver bridge School Nairobi
39. Stanmore Secondary School
40. Summer Springs Secondary School
41. Temple Road Secondary School
42. Wamy Secondary School
43. Aga Khan Secondary School
44. Al Maktoum Foundation
45. Apostolic Carmel Secondary School
46. Atlas Education Centre
47. Authentic Academy
48. Batian Christian School
49. Blue Hills Academy
50. bright star Secondary School
51. Brookfield Secondary School
52. Brooklyn Secondary School
53. Brook shine School
54. Bruce wood Education Centre
55. By grace School
56. C G H U Secondary School
57. Charity Student Centre
58. Consolata School
59. Cresent Girls Secondary School
60. Dawn star Educational Centre
61. Domus Mariae School
62. Don Bosco Boys Town School
63. Don Bosco Girls School
64. Elgon ridge Schools Ltd
65. Elyon Secondary School
66. Embakasi Secondary School
67. The Emmaus School
68. Enna School
69. Exeter Academic Complex
70. Fedha School
71. Forest View Academy
72. Gladys Girls Secondary School
73. Global Vision Secondary School
74. Good Samaritan Secondary School

75. Good Shepherd Secondary School
76. Green Valley International School
77. Green Ville Secondary School
78. Guru Nanak Gn Secondary School
79. High Link Secondary Schooll
80. Imprezza Secondary School
81. Jarmat Girls Boarding School
82. Jucky Secondary School
83. Kahawa Secondary School
84. Kapen Mixed Secondary School
85. Kareng'ata Academy
86. Karen South School
87. Kariobangi South Secondary School
88. Karura SDA Secondary School
89. Kayole Girls Secondary School
90. Kenya Muslim Academy
91. Khalsa Girls Secondary School
92. Kianda School
93. Kimana Central Academy
94. The Komarock School
95. Kingsize Academy
96. Kwihota Secondary School
97. Le Pic Senior School
98. Light Academy Boys School
99. Light Academy Girls
100. Loreto Convent Msongari
101. Loreto Convent Valley Road
102. The Makini School
103. MaleziSecondary School
104. Marion Group Of Schools
105. Mukuru Education Centre
106. Munadhamat Al Dawa Al Islamia
107. Muslim Academy
108. Mwiki Mixed Secondary School
109. Nairobi Muslim Academy
110. Nairobi Queens Educational Centre
111. Nairobi South Secondary
112. Ngeip .A.G Secondary School
113. N.P.C.A Secondary School
114. Nues Education Centre
115. Outering High
116. Premier Academy
117. Prime Education Centre
118. Prince Johns Mixed
119. Queen of Apostles Seminary
120. Racecourse Education Complex
121. Rasul Al Akram Academy
122. Redeemed Education Centre
123. Riara Group of Schools
124. Riara Springs Girls School
125. Riruta Central Secondary School
126. Riverside Academy
127. St Agnes Mixed Secondary School
128. St Aloysius Gonzaga Secondary School
129. St Anthony Secondary School
130. St Benedict Thome Boys Senior School
131. St Bernard Secondary School
132. St Catherines Mountain View Academy
133. St Charles Mutego School
134. St Christopher School
135. St Deborah School
136. St Dominic Savio's School
137. St Edwards Secondary School
138. St Elizabeth Secondary School
139. St Florence Girls Secondary School
140. St Hannahs Girls School
141. St Juliet Preparatory
142. St Lucie Kiriri Girls
143. St Martins School Nairobi
144. St Marys Academy Nairobi
145. St MarysRuaraka School Nairobi
146. St Marys Mixed School
147. St Tito Secondary School
148. S.O.S Childrens Village School
149. S.S.D Secondary School Nairobi
150. Serare School
151. Shauri Moyo M.H Secondary School
152. Shilce Secondary School Nairobi
153. Silver bridge School Nairobi
154. Stanmore Secondary School

155. Star Sheikh Academy
156. Star Sheikh Group of Schools
157. Strathmore School Nairobi
158. Summer Springs Secondary School
159. Sunflower Secondary School
160. Sunshine Secondary School
161. Talanta Preparatory School
162. Temple Road Secondary School
163. Treasure Secondary School
164. Tristar Academy Complex
165. Trusted Care Group of School
166. Vinespring Girls School
167. The Visionary Centre Senior School
168. Wamy Secondary School
169. Welkim Senior Academy
170. Westminister Academy Kenya
171. Wiltrue Educational Centre

Source (Kenya Schools Net, 2013)