

**ASSESSMENT OF KENYA EDUCATION MANAGEMENT INSTITUTE
TRAINING ON PRINCIPALS' FINANCIAL MANAGEMENT SKILLS IN PUBLIC
SECONDARY SCHOOLS IN KAKAMEGA SOUTH SUB- COUNTY, KENYA**

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**A Thesis Submitted in Partial Fulfillment of the Requirements for the Award of the
Degree of Master of Education in Educational Planning and Management of Masinde
Muliro University of Science and Technology**

September, 2023

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DEDICATION

To my family members: my dear wife Beatrice Ayuma and our children Joyson Amani, Precious Baraka, Eleon Obukosia, Emmanuel Ushindi and Jachin Pendo.

ACKNOWLEDGEMENTS

It is with utmost respect and humility that I express my heartfelt gratitude to my supervisors: Prof. Stephen O. Odebero and Dr. Herman J. Wachiye for demonstrating immense patience and commitment while mentoring me academically. For sure, without your invaluable intellectual input and support, I would not have been able to piece together with finesse the findings of this study into this thesis . I also take this opportunity to extend my gratitude to Dr. Charles E. Ejikait for helping me out with the analysis of data.

Many thanks go to all the members of faculty in the Department of Education Planning and Management at Masinde Muliro University of Science and Technology, for prompting my intellectual instincts into scholarly action. I am indebted to my classmates, friends and relatives, for their incessant encouragement and moral support. To all my respondents, especially the principals of the public secondary schools in Kakamega South South County and their bursars/accounts clerks, I submit my most sincere appreciation for your informative and very timely responses that made this study a success.

I am immensely grateful to my family members for their moral and physical support; without which I would have run out of the tenacity to conclude my studies. Finally, I give glory to God Almighty for this far that I have come!

ABSTRACT

The government of Kenya through the Ministry of Education has been conducting educational management training for all the principals of public secondary schools in Kenya at Kenya Education Management Institute since the year 2012. This course was intended to enhance their skills in management. However, in Kakamega South Sub-County, it was not possible to ascertain the kind of change this training has brought on the financial management skills of the principals for the period 2015 to 2020. The purpose of the study was to assess the change brought about by the Kenya Educational Management Institute training on the financial management skills of the principals of the public secondary schools in Kakamega South Sub County for the period 2015 to 2020. The study was guided by the survey research design. The study population comprised of 31 principals, 31 accounts clerks and the TSC County Director of Education. The simple random sampling techniques was used to select the sample which was 29 principals and 29 account clerks. The research instruments comprised of two questionnaire sets which were administered to the principals and the school account clerks, . The data was analyzed by applying both the descriptive and inferential analysis techniques. The descriptive statistics comprised of; percentages, frequencies and the means while the inferential statistics involved testing the null hypotheses by applying the Chi-square and the one way ANOVA analyses techniques. The findings revealed that after the training, the principals of the public secondary school in the Sub-County improved in projection completion rates from a mean of 53.10% in 2015 to 82.9% in 2020. The findings further revealed that the repayment of the school debts improved from 59.41% in 2015 to 84.48% in 2020. In regard to compliance to the approved accounting procedures, the study revealed that principals improved from 51.7% in 2015 to 100% in 2020. In conclusion, the educational management training generally improved the financial management skills of the principals of the public secondary schools in Kakamega South Sub-County. In view of the foregoing conclusion, it was recommended that the current KEMI management training for the secondary school principals be retained but be offered on a more regular basis as a refresher course, so as to thoroughly inculcate the requisite management skills in the school managers.

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ACRONYMS

BOM:	Board of Management
EFA:	Education for All
GOK:	Government of Kenya
KCSE:	Kenya Certificate of Secondary Education
KNBS	Kenya National Bureau of Statistics
KEMI:	Kenya Education Management Institutions
KESI:	Kenya Education Staff Institute
MOEST:	Ministry of Education Science and Technology
NGOs:	Non-Governmental Organizations
PAC:	Public Accounts Committee
PTA:	Parents Teachers Association
TSC:	Teachers Service Commission
UK:	United Kingdom
USA	United States of America

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter provides an overview of the study's background, a clear characterization of the problem, the study's goal, its objectives, research questions, conceptual framework, justification for doing the investigation, assumptions made in the study, and operational definitions of key words.

1.2 Background of the Study

Changes in the education systems of many countries in the world have necessitated the adoption of appropriate approaches in teaching, learning and management of educational institutions in the recent years. The work of the principals of educational institutions has therefore become more complex, thus demanding appropriate skills, knowledge and attitudes that can enable them to work effectively (Maranga, 1993).

In the Asian continent, two countries, Hong Kong and Singapore, have emerged as leaders in the realm of institutional development and capacity building initiatives for principals. The Hong Kong Education Department established the conceptual foundations for leadership education for principals in 1999. Experts in the field of education made the decision after witnessing successful models in the United Kingdom, Scotland, and Australia (Hammond, 2007). Following these visits, the educational department of Hong Kong implemented a compulsory introduction course on school management theory and practice for the designated school leaders. As a result, in 2002, a Certificate for Principalship (CFP) was implemented to cater to the needs of individuals desiring to

become principals. The purpose of this measure was to guarantee that all prospective principals fulfilled the necessary leadership criteria in their preparation for assuming the role of principle (Moloi & Bush, 2006).

In 1974, the federal government of the United States of America (USA) initiated an inquiry into the financial management of schools in response to public concerns regarding the inefficient allocation of resources within educational establishments (Flippo, 1984). The findings of the inquiry indicated a deficiency in financial management abilities among a significant number of principals. Consequently, there arose a necessity to provide training for teachers in the realm of financial management, in addition to their other responsibilities. In the context of his education reform initiative, President Bill Clinton advocated for the reassessment of teachers' competencies as a means of enhancing the quality of education. Ndonga (2007) posited that the assessment would encompass the evaluation of financial management competencies. Following the re-testing, the findings revealed a significant need for comprehensive training among teachers in the realm of financial management.

Several African countries are now implementing initiatives aimed at designing and implementing training and development programs for secondary school principals (Oduro and Wanga, 2003). In the context of South Africa, a policy framework has been established to record a novel professional development project aimed at principals and individuals seeking to become principals. This initiative focuses on leadership education and

management. The primary objective of this program is to provide training for individuals seeking to become principals, as well as enhance the skills and abilities of those who are already serving in this role (Moloi & Bush, 2006). The Tanzanian government has implemented a training program aimed at enhancing the skills and knowledge of school managers and administrators. This program prioritizes the enhancement of head teachers' financial management skills.

During the 1990 World Conference on Education for All (EFA) held in Jomtien, Thailand, various stakeholders including ministries of education, international agencies, and non-governmental organizations (NGOs) reached a consensus on implementing action plans aimed at enhancing the competence and effectiveness of school administrators (MOEST, 2000). These plans acknowledge the notion that school principals bear the primary duty for establishing an efficient educational atmosphere inside their respective schools. Hence, in the absence of requisite competencies, the head teachers would be unable to effectively fulfill this essential responsibility. The recommendation highlighted the necessity of providing training to school managers in educational institutions about institutional management.

Based on extant literature, it has been documented that in the past, possessing training or a proficient understanding of financial management was not deemed necessary for individuals to be appointed as heads of public schools in Kenya (Kamotho, 2008 and Republic of Kenya, 1988). The preceding analysis indicates that historical headship appointments in Kenya were primarily determined by three key factors: the effectiveness

of classroom teaching, as evidenced by subject mean scores; active involvement in co-curricular activities; and the academic and professional qualifications of the potential appointees.

In light of the aforementioned context of insufficient readiness for school administration, the majority of education commissions established in Kenya subsequent to achieving independence underscored the imperative of ongoing training for educational institution managers. The Gachathi Report (1976) highlighted the necessity for educational administrators to continuously update their knowledge and abilities in order to uphold high levels of competence, as educational institutions evolve and grow in complexity. The Kamunge Report (1988) and Sessional Paper No. 1 (2005) of the Republic of Kenya emphasized the importance of providing financial management training to school administrators. According to Okumbe (1998), it is imperative to provide further training and development opportunities to all employees, irrespective of their prior training, education, and experience. This is necessary to ensure their proficiency in adapting to the evolving dynamics of management. The importance of improving the managerial skills of school principals was emphasized in the Republic of Kenya's Sessional Paper No. 1 of 2005. In accordance with this, it is recommended to provide in-service training to enhance their managerial abilities. Furthermore, the text highlights the importance of exercising prudence in the management of schools as a key factor in the promotion of head teachers. The observed deterioration in management practices within public educational institutions in Kenya has been commonly attributed to a dearth of managerial knowledge and

administrative competencies among principals and headteachers. This elucidates the rationale behind the considerable endeavors undertaken by the ministry of education in the recent years to rectify this prevailing condition. According to Section 21 of the Education Act of 2010 in the Republic of Kenya (MOE, 2010), it is stated that principals or head teachers hold the position of chief accounting officers within their respective schools. As such, they bear the responsibility for overseeing the management and control of the school funds. Additionally, principals or head teachers are tasked with maintaining accurate records of the income and expenditure associated with their schools. In addition, they provide guidance to the school Boards of Management regarding the judicious and effective use of the school's resources. Indeed, this undertaking confers significant fiscal accountability upon the school principals/head teachers. Consequently, it is imperative for school head teachers to receive comprehensive training in the effective management of school resources.

Given the aforementioned concerns, the Ministry of Education of the Republic of Kenya has devised a training curriculum specifically tailored for head teachers. The training program is provided by the Kenya Education Management Institute (KEMI) with the objective of enhancing the financial management competencies of principals and head teachers, among other objectives. The program encompasses a duration of one year and is categorized into three overarching domains: the operational aspects of school administration and organizational affairs, the oversight of school finances and inventory, and the managerial facets of school administration (Republic of Kenya, 1999). After the conclusion of the training program, it is anticipated that the head teachers will be able to

formulate yearly plans for their educational institutions, create project proposals, and establish regular budgets. Additionally, they will be required to adhere to the financial accounting protocols set forth by the ministry of education.

The aforementioned comprehensive management program for head teachers in Kenya was designed by the government due to their significant involvement in the administration of public finances over the course of their professional responsibilities. As per the government's perspective, the enhanced administration of educational resources will yield a favorable return on investment for the stakeholders involved in the education sector. The primary objective of this study was to evaluate the impact of the KEMI capacity building program on the financial management skills of principals in public secondary schools located in Kakamega South Sub-County. In order to determine the impact of educational management training on the financial management skills of principals, data was gathered from respondents in educational institutions about important indicators of financial management. The data collection spanned from 2015 to 2020. The provided data facilitated the identification of the pattern in the fluctuations exhibited by the principals of the chosen schools in the realm of financial management.

1.3 Statement of the Problem

The Ministry of Education in Kenya oversees the provision of educational management training for principals of public secondary schools at the Kenya Education Management Institute (KEMI). The primary objective of this program is to augment the proficiency of public secondary school principals in the area of financial management, alongside other

objectives. At present, it can be observed that all principals overseeing public secondary schools within the Kakamega South Sub-County have successfully completed the educational management training program. Nevertheless, despite the completion of this pivotal training in school administration, there has been a noticeable lack of effort in evaluating and recording the impact of the training on the principals' capacity to effectively handle the financial resources within their individual secondary schools. The problem of this study therefore was; what kind of change did the Kenya educational management institute training have on the financial management skills of the principals of the public secondary schools in the Kakamega South Sub-County for the period 2015 to 2020. It was important to establish this position because, every year the government of Kenya allocates a substantial amount of money in the national budget to cater for the training needs of the principals of public secondary schools.

1.4 Purpose of the Study

The purpose of study was to assess the effect of the Kenya Educational Management Institute Training on the financial management skills of the principals' of the public secondary schools in Kakamega South Sub County for the period 2015 to 2020.

1.5 Objectives of the Study

The study specifically sought to:

- i) Determine the contribution of Kenya Educational Management Institute Training for principals on project completion rates in public secondary schools in Kakamega south sub-county for the period 2015-2020.

- ii) Evaluate the role of Kenya Educational Management Institute Training for principals on debts repayment rates in public secondary schools in Kakamega south sub-county for the period 2015 - 2020.
- iii) Assess the contribution of Kenya Educational Management Institute Training for principals on the level of compliance to the approved accounting procedures in public secondary schools in Kakamega south sub-county for the period 2015-2020.

1.6 Hypotheses

- H₀₁:** There is no statistically significant difference on the contribution of Kenya Educational Management Institute training on project completion rates in the public secondary schools in the Kakamega South Sub-County for the period 2015 to 2020.
- H₀₂:** There is no statistically significant difference on the role of Kenya Educational Management Institute training on debt repayment rates in the public secondary schools in the Kakamega South Sub-County for the period 2015 to 2020.
- H₀₃:** There is no statistically significant difference on the contribution of Kenya Educational Management Institute training on the levels of compliance to the accounting procedures by the principals of the public secondary schools in the Kakamega South Sub-County between the years, for the period 2015 to 2020.

1.7 Justification of the Study.

The impetus for conducting this study was predicated on the following rationales: the Kenyan government consistently spends substantial funds each year to enhance the managerial competencies of public secondary school principals. Therefore, undertaking a

study of this sort would provide an avenue for receiving feedback on the efficacy of the KEMI management training program in enhancing the financial management capabilities of public secondary school administrators, along with other relevant skills.

1.8 Significance of the Study

This study has proposed some content that should be incorporated into the KEMI educational management training curriculum for principals of public secondary schools, as recommended to the Ministry of Education. Furthermore, the results of this study will serve as a valuable resource for educational practitioners and academics specializing in the field of educational institution management.

1.9 Scope of the Study

For the purpose of manageability, the study was delimited in the following ways:

- i) The study was confined to all the public secondary schools headed by the trained principals in Kakamega South Sub-County.
- ii) The study focused on the principals who attended the educational management training within the period, 2015 to 2020. This is because, it was during this period that the KEMI educational management training curriculum was radically restructured to cater for the increasing managerial needs of the secondary school principals.
- iii) The thrust of this study was in the area of financial management, because the public secondary schools in the republic of Kenya receive a lot of funds annually from the exchequer to cater for the various school activities and operations.

1.10 Limitations of the Study

The study was limited in its scope of schools since most schools in Kakamega South Sub-County fall in the categories of County and Sub-County schools. This implies that the schools in other categories were under represented, especially those in National school category which were not represented at all. However, the Sub-County has quite a number of Extra-County schools whose features are almost similar to those of the National schools.

1.11 Assumptions of the Study

The study was predicated on the suppositions that all principals of public secondary schools within the sub-county have participated in educational management training focused on financial management from 2015 to 2020. Furthermore, it should be noted that all the public secondary schools within the sub-county were consistently provided with financial resources to facilitate the execution of diverse educational initiatives. It was ultimately postulated that the financial management competencies of the principals within the public secondary school in the sub-county remained unaffected by factors such as the principal's professional background, educational attainment, and the characteristics of the school.

1.12 Conceptual Framework

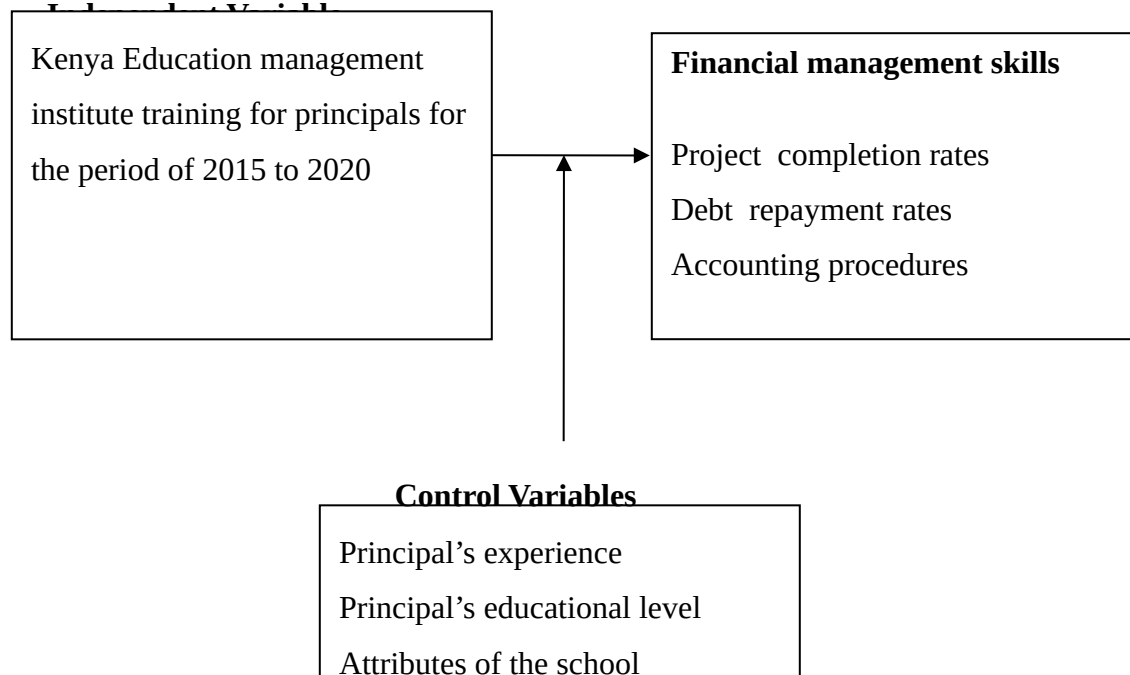


Figure 1.1: Conceptualized relationship between the educational management training for principals, and their financial management skills.

Source: Researcher (2022)

Figure 1.1 shows the conceptualized relationship between the educational management training for the principals of the public secondary schools and their financial management skills. In the above conceptual framework, the educational management training is the independent variable, while the financial management skill is the dependent variable. During the educational management training offered at KEMI, the principals of the public secondary schools are taught and inculcated with skills and competencies in the following areas of financial management: project management, debt management and compliance to

accounting procedures. After going through the educational management training, the principals were expected to demonstrate good skills and competencies in the management of the financial resources of their schools among other things. The indicators of financial management in this particular study were the: project completion rates, debt repayment rates and the compliance to the accounting procedures. The non compliance with the expectations of the training is considered to be a financial malpractice and is punishable through some form of disciplinary action meted against the affected principal(s) by the TSC. In addition to the aforementioned, the conceptual framework also takes into consideration the role played by the intervening variables in modifying the relationship between the independent variable and the dependent variables. In this case, the following intervening variables were identified as being distinct: the work experience of the principal, the education level of the principal, and the attributes of a school. However, the conceptual framework did not isolate and control for the intervening variables. Consequently, they are provided as limitations in the study.

This study is anchored on the premise that the ability to manage the financial resources of a school is critical to the functionality of a principal or a head teacher. This is because in each financial year, the government of Kenya entrusts each principal or head teacher with a lot of money which it disburses to each public secondary school from the exchequer to cater for tuition and other school operations. In view of the aforementioned, it was imperative to assess the changes in the financial management skills of the principals after attending the KEMI educational management training

1.13 Operational Definitions of Terms

The following terms, as used in this study were understood to be as follows:

Accounting procedures: Refers to the approved institutional guidelines on how to manage the financial resources of a public secondary school.

Assessment: Refers to an empirical judgment of the performance of a programme.

Debt: Refers to the amount of money that a school owes the creditors/suppliers either for the goods delivered or the services rendered.

Educational Management Training: Refers to the capacity building program offered by the Kenya Educational Management Institute to the principals of the public secondary schools in Kenya.

Financial malpractice: Refers to the failure to strictly observe the laid down guidelines and procedures on how to use the monetary resources in a public secondary school.

Kenya Education Management Institute: It is an institute for the capacity building programme for teacher in both primary and secondary schools.

Principal: Refers to the person appointed by the TSC to the position of the chief executive officer of a public secondary school.

Project completion: Refers to the conclusion in the implementation of all the planned activities of an endeavor or a capital investment in a public secondary school.

Public secondary school: Refers to a post primary school whose academic programs are supported by the government in terms of financial and human resources.

School Account Clerks: Refers to financial officer who is incharge of financial transactions in public secondary school.

School attributes: Refers to the categorization of a public secondary school based on the: catchment area of its students, students' enrolment and the general status of its infrastructure.

Training: It is the Impartation of knowledge and skills to enable principals manage schools effectively.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature review on the main variables of the study. They included financial related disciplinary cases in the public sector, management training and project completions in organizations, management training and debt payment and finally, management training and the compliance to the accounting procedures by principals in secondary schools.

2.2 Financial Related Disciplinary Cases in the Public Sector

Globally, public officers are expected to exercise the highest levels of professionalism when executing their duties. Generally, the financial related disciplinary cases tend to range from the theft of public funds to the negligence of duty among others.

In United States of America (USA), every state officer is personally accountable for his or her own behavior and work performance (New York State Department, 2003). Such that, if the principal is found to have committed an offence in line with his or her duty, a formal disciplinary committee is convened by the chairperson of the board of management to handle the case. In case the offence committed is not severe, then the principal will receive a warning either verbally or in a written form. If the offence is of gross misconduct such as theft, fraud, gross negligence of duty and refusal to comply with legitimate instructions, then the principal will be suspended on full pay pending investigations. If found quilt, he or she is dismissed (Department of Education and skills, 2014).

According to Chatiza (2014), within the Mashonaland East region of Zimbabwe, there were a total of ten disciplinary hearings conducted for headmasters. Notably, eight of these hearings were specifically associated with instances of misappropriation of school finances. Moreover, over the period spanning from 2010 to 2011, a comprehensive sum of 96 educational administrators around the nation were apprehended due to their involvement in the misappropriation of teacher incentives (Sergiovanni, 2012).

In Uganda, the Inspectorate of Government Reports to the Parliament (2011), a body responsible for ensuring transparency and accountability among the public officers revealed that, 190 officers were prosecuted by the inspectorate of government for embezzlement of funds; 53 were arrested, 32 were warned, 43 were interdicted and 10 were dismissed including the head teachers. The inspectorate recommended for a training of the public officers among other measures. The constitution of Kenya,(Republic of Kenya,2010) underscores austerity measures in the management of the public resources . To be more specific, the chapter six of the constitution of Kenya puts emphasis on honesty and accountability of the public officers when performing their duties and this is explicitly articulated in the Public Officers and Ethics Act.

In contrast, the Teachers Service Commission has established restrictions pertaining to the financial conduct of its members (TSC, 2012).The disciplinary actions taken in response to instances of financial misconduct or non-compliance with established regulations are contingent upon the nature of the misbehavior or offense. The measures encompass a range of actions, including but not limited to interdiction, suspension, partial or complete

recovery of cash, replacement of damaged or lost items, and initiation of legal proceedings for prosecution in a court of law. According to studies conducted by Wichenje (2012), an average of seventeen principals were implicated in the misappropriation of school funds and other school property in the former western province. He additionally contended that the punitive actions implemented against the head instructors were insufficient, as they failed to address the irreparable harm that had been inflicted.

The audit report from 2014 unveiled significant instances of financial fraud within the public secondary schools in Kenya. According to the research, a total of 136 schools were found to have given tenders amounting to Kshs.261 million through indirect procurement methods, rather than following the mandated open tendering process as stipulated by the Public Procurement and Disposal Act (2005). Additionally, the investigation uncovered instances in which certain educational institutions granted contracts to suppliers who had not undergone the necessary vetting process by the respective tender committees. An examination of the financial records of 124 educational institutions showed instances where monies were transferred between accounts without the necessary authorization. According to the audit report, an unusual transfer of a total amount of Ksh. 157 million was identified in four institutions as of June 30, 2014. The government of Kenya implemented stringent disciplinary actions in response to the concerning patterns of financial misappropriation observed within schools. On August 26, 2014, the Public Accounts Committee (PAC) summoned ten principals from prominent high schools in Kenya regarding the purported misuse of approximately Ksh. 112 million. These funds were disbursed by the treasury to support subsidized secondary education. The audit study

included several schools, namely Friends School Kamusinga, Nairobi School, Kenya High, Mary Hill Girls, Limuru Girls, and Lenana High. The individuals in question faced allegations that included the act of artificially increasing the prices stipulated in the contract, receiving full payment for work that was not fully completed, making excessive payments to the contractor, and violating the norms pertaining to procurement and disposal. The principals of the aforementioned institutions were required to present themselves before the parliamentary committee and assume complete accountability.

Although all principals of prominent secondary schools in Kenya have received training in financial management, there has been a persistent increase in financial disciplinary cases. According to a report published in the Daily Standard Newspaper on October 10, 2016, the principal of Ahero Girls' High School was placed under interdiction in response to many allegations brought against her. The allegations levied against her encompassed forgery, misappropriation of school funds, and violation of professional ethical standards. The introduction of her prohibition provoked feelings of unease and agitation among the students within her educational institution. The endeavors made by the local representative of parliament to secure her release proved to be ineffective.

2.3 Management Training and Project Completion in Organizations

According to the Project Management Institute (2000), project management is the process of coordinating the various tasks necessary to complete a project successfully. The concept of "project management" is occasionally employed to denote an organizational methodology for overseeing continuous activities (Lucia & Richards, 1999).

Wamuyu (2012) conducted a study to determine the obstacles school principals in Mathira constituency, Nyeri County, encounter when managing school initiatives. The target population comprised all 33 public secondary schools within the Mathira constituency. The data was obtained through the utilization of semi-structured questionnaire sets, in which the respondents consisted of principals and members of the Board of Management (BOM). The research findings indicated that administrators of public secondary schools within the area encountered significant difficulties in overseeing school projects. It was also discovered that despite the majority of school principals receiving training in project management, they encountered difficulties pertaining to project management skills, financial management skills, management of constraints, stakeholder involvement, and project monitoring and evaluation during the management of school projects. The study proposed that further training be provided to principals in this particular domain.

The aforementioned viewpoints were reiterated in a research conducted by Wanjala, Khatete, Mbaka, and Asiago (2014), which examined the level of readiness among secondary schools in Gucha South Sub County, Kisii County, Kenya, in terms of their capacity to effectively manage, plan, supervise, monitor, and evaluate school projects. This study employed a descriptive survey design and included a sample of 42 schools. The results of this study revealed a deficiency in the proficiency of school principals in the areas of project design, supervision, and implementation. Based on the aforementioned findings, it is proposed that the principals of public secondary schools undergo managerial training.

Muthoni (2015) investigated the difficulties encountered by secondary school principals in Mathira Constituency when coordinating school-related projects. The sample consisted of 33 public secondary schools located in Mathira Constituency. The study revealed that despite receiving training in project management, the majority of principals encountered difficulties pertaining to management abilities, financial management, management of project restrictions, and project monitoring and assessment. The participants provided significant signs of these management issues, including the occurrence of project completion delays, the presence of numerous stagnant projects, and the escalation of project expenditures. The study said that it is advisable for principals to get ongoing and structured professional training in project management in order to enhance their preparedness and development.

Kinyua (2013) investigated the influence of training on the efficiency of project management among Kenya's secondary school principals in the Kirinyaga District. The objective of this study was to investigate whether principals undergo any form of training in project management and to determine whether such training has any impact on the effectiveness of principals in managing school projects. The study employed a descriptive survey approach, with a sample size consisting of 20 public secondary schools. The results of the study indicated a requirement for sufficient training and preparation of school administrators in the field of project management.

However, according to Chevalier (2001), the significance of training project managers is not a crucial determinant for the achievement of project success. The author highlighted stakeholders as a significant determinant of project success. The author posits that the achievement of project success is contingent upon the recognition and active engagement of all relevant stakeholders. Gribble and Willard (1996) share a similar perspective, contending that stakeholders who are content have a positive impact on the advancement and pertinence of a project, hence enhancing its overall success. According to a research by the World Bank (WHO, 2007), the timely procurement of project materials is a crucial component contributing to the success of a project. The paper emphasizes the need of acquiring resources, property, and services in a timely manner. The prompt availability of finances is an additional determinant for the achievement of any given endeavor. According to Mansfield (1994), there exists a correlation between cost overruns and project delays. The author observed a significant association between these two parameters. In contrast, Kalinova (2007) underscores the necessity for project managers to possess the requisite competencies in the field of project management.

Bush (2007) argues that effective school management is a multifaceted endeavor that calls for leaders with both dedication and foresight. The school administrator assumes the crucial role of overseeing several aspects of school operations, including the management of physical facilities, staff people, financial resources, curriculum development, student affairs, and fostering positive relationships within the school community (Kaechukwu, 2011). Therefore, the role of the school principal can be likened to that of a project manager. According to Prabhakar (2008), the phases of a project's management are as

follows: initiation, planning, execution, controlling, and closure. Given the circumstance that the principal assumes the role of project manager, it is anticipated that they will undertake responsibilities encompassing the planning, implementation, management, maintenance, and evaluation of the entire educational system. Consequently, it is imperative that principals, in their capacity as managers, engage in comprehensive preparation in the field of project management.

Jeselsikis and Ashely (1991) developed a prediction model with the aim of assessing the relationship between project managers' educational background and experience, and their level of success in project management. The model demonstrates that the achievement and completion of a project are contingent upon numerous attributes that may exhibit a direct correlation with the educational attainment and training of project managers. The quality of project planning and its subsequent success can be considerably influenced by the amount of education and training. Shehu and Akintoye (2001) further underline the aforementioned perspective, contending that the success of a project hinges upon the manager's competence in planning, monitoring, and executing the project.

2.4 Management Training and Debt Payment in Public Secondary Schools

The existing body of literature indicates a lack of comprehensive research on the global impact of management training on debt payment in educational institutions. Parks (2004) notes that debt in any business is an expense to the firm's capital. For example, the ongoing processing of reminder paperwork incurs financial expenses for the company. Additional expenses are accrued when individuals who fail to meet their financial obligations are

contacted via telephone or physically pursued to their residences or places of employment. Millicamp and Taylor (2008) note that pursuing delinquent debtors incurs opportunity costs. According to Dekker and Schalkwyk (2007), the non-payment of school fees in secondary schools in Africa during the early 1990s led to the accumulation of enormous debts that negatively impacted the infrastructure development of the majority of schools. The aforementioned observations paint a somber picture of the challenges faced by instructors in schools where fees are not being paid. It is evident that there is a scarcity of housing facilities for teachers, resulting in a situation where most professors are compelled to share the limited available accommodations. These circumstances are sufficient to deter experienced educators from working in such educational institutions, despite being a crucial element in accomplishing the primary objectives of the school (Zrobo, 1990).

In their study, Pedzisai and Tsevere (2013) conducted research on the management of debtors in Gokwe East Cluster Day Schools, located in the Gokwe South District of Zimbabwe. The objective of this study was to assess the efficacy of debtors' management in Gokwe East Cluster Day Secondary Schools. The data was obtained from a sample of 180 participants selected from six cluster schools, utilizing a combination of census and stratified random selection methods. The study employed a descriptive survey approach to gather data, including questionnaires, interview schedules, and focus group discussions as data collection instruments. The study's results indicated that the progress of school development initiatives was impeded due to the failure to pay fees, which in turn had a negative impact on the acquisition of learning resources. Based on the results of the study, the researchers suggest that it would be beneficial to provide parents with education

regarding the importance of fulfilling their financial obligations, specifically in terms of paying fees. Additionally, the researchers propose that students who have outstanding costs should not be permitted to enroll at the beginning of each academic term until all payments have been settled. Lastly, educational institutions ought to consider engaging the assistance of debt collectors as a means of upholding positive relationships with the broader community.

Nabiswa and Sakwa (2013) investigated the impact of financial education on the economic success of Kenya's secondary schools. The study encompassed the participation of administrators from secondary schools located throughout Trans Nzoia County. This study aimed to examine the impact of financial management training on the financial management abilities of principals, heads of departments (HODs), and bursars in public secondary schools located in Trans-Nzoia County. The study employed a descriptive survey research methodology to facilitate the gathering of data from a sample of 36 public secondary schools. The schools were selected through a stratified random selection technique. The findings of the study indicated that the implementation of financial management training in secondary schools did not result in a significant reduction in the level of debt incurred by students. This study suggests that debt reduction is influenced by factors beyond training. The reasons that were cited include the type of the school and its location, among other issues.

2.5 Management Training and Compliance to Accounting Procedures

Head teachers are expected to demonstrate professionalism when managing financial affairs, including activities such as budgeting, implementing internal financial control

measures, and conducting audits. It is anticipated that individuals possess a high level of knowledge and proficiency in the aforementioned domains.

In a study conducted by Hansraj (2017), the focus was on examining the financial management responsibilities of principals in South Durban, South Africa. The study found that school principals, along with school governing bodies, were assigned the task of effectively managing monies inside educational institutions. This objective can be accomplished by implementing effective budgeting practices, acquiring necessary things through procurement processes, and maintaining a high standard of accountability and openness in all operational endeavors. The primary focus of this study was on the judicious administration of school finances to guarantee the appropriate distribution of resources in order to accomplish the objectives of the educational institutions.

Pfau (1996) surveyed 47 teachers from a subset of Uganda's districts to assess the training needs of primary school principals. Upon conducting a descriptive analysis of the data, utilizing measures such as means, mode, and frequencies, the study uncovered that financial management training emerged as the most highly regarded part of training for head teachers, surpassing other areas of training. The participants expressed a desire for instruction in areas such as budget formulation, financial statement preparation, and internal financial control monitoring. The study suggested the implementation of additional training programs for school administrators in these specific domains.

Mwinjuma and Baki (2012) did a cross-sectional study on how parents in public primary schools in Tanzania felt about the head teachers' cash management skills. The research was conducted via structured interviews with a sample of 60 parents who served as representatives of the parents organization in public primary schools. The results of the study indicated that head teachers exhibited a lack of professionalism in the domain of financial management, which was related to their inadequate proficiency in financial management abilities. The researchers proposed that it would be beneficial for all head teachers to undergo retraining in sound financial management concepts in order to improve the effective allocation of school funds.

Similarly, Odubuker (2007) looked into how training for school principals in Northern Uganda affected their financial management skills. The researcher employed a descriptive research design to gather data from a sample of 165 head teachers. The data collection was conducted through the use of a self-administered questionnaire. The inferential analysis was conducted using a significance level of .01. The findings indicated a statistically significant positive correlation between financial management training and the competencies of head teachers in managing school finances.

The findings of a research conducted in Kenya pertaining to the impact of accounting techniques on the administration of school money in public secondary schools in Kisii Central indicated that a majority of the schools effectively upheld proper bookkeeping procedures. This finding suggests that there was a practice of monitoring bookkeeping

activities and maintaining regular updates of the books of accounts (Okioga, Onjera, and Nyabwanga, 2012). The results of this investigation were consistent with the findings of a previous study conducted by Langat (2008). According to Langat (year), the process of updating the information contained within the financial accounts resulted in enhanced school administration, increased accountability, and improved transparency with regard to recurrent expenses. In contrast to the aforementioned statement, a research investigation carried out in Kenya by Atieno, Sangoro, Oduor, and Odongo (2016) aimed to assess the influence of control systems on the financial management of public secondary schools in Kakamega central. The study revealed that there was a lack of adherence to appropriate accounting procedures. Frequently, a considerable duration of time transpired prior to the preparation of the books of accounts. The study's target population comprised 19 principals, 19 bursars, and 152 members of the tender committees. Based on the findings of this study, it was observed that certain institutions had deficiencies in the provision of supported documentation for financial transactions, including payment vouchers and receipts. This study suggests that further training should be provided to school accounts clerks and principals in order to enhance their knowledge and skills in financial affairs.

Magak (2013) conducted a study to determine the difficulties faced by secondary school principals in Kenya's Kisumu East District with regard to financial administration. The research focused on a sample of 41 public secondary schools. The data gathering instruments comprised of questionnaires administered to principals, deputy principals, and accounts clerks/bursars.

The study revealed that school principals encountered difficulties in various areas, including accounting, budgeting, auditing, and professionalism. The primary issues observed encompassed deficient and erroneous entries within the financial records, the absence of accompanying accounting documentation for audit purposes, and the incapacity to effectively compile the books of accounts. The study suggests the necessity of evaluating the financial management curriculum offered at the university and diploma training levels in order to enhance the relevance and ability of school principals in the field of financial management.

Many educational institutions have a tendency to create annual budgets and conduct audits; nevertheless, these activities are frequently executed in a negligent manner. The aforementioned assertion is substantiated by a research conducted by Kaguri, Njati, and Thiane (2014) regarding the obstacles encountered in the financial management aspect during the execution of free day secondary education in the Imenti area of Kenya. The results of this study revealed that a significant number of schools frequently neglected the implementation of financial planning and budgeting practices. Moreover, it is worth noting that the aforementioned exercises were consistently executed in a negligent manner, lacking the active participation of the relevant parties.

2.6 Summary

This section provides a concise overview of the literature that was examined in order to do this investigation. The existing body of scholarly literature has extensively explored the field of financial management inside educational institutions, with several research having

been undertaken. An investigation conducted by Chatiza (2014) in Mashonaland, Zimbabwe, disclosed that headteachers who engaged in the inappropriate utilization of school money faced disciplinary actions due to their abuse of authority. According to Caldwell (2004), the aforementioned situation might be related to the inadequate provision of financial training for secondary school head teachers, particularly in Sub-Saharan Africa. Nevertheless, the study conducted by Chatiza in Mashonaland failed to specify whether the principals who were interdicted had received training in financial management or not. Previous research conducted by Mogak (2012) indicated that a significant number of headteachers encountered difficulties in effectively managing human resources and school budgets. The findings of a needs assessment training conducted in Uganda by Pfau (1996) indicated a requirement for providing financial management training to the head teachers of elementary schools in Uganda. Based on the findings of the aforementioned study, it was observed that the headteachers exhibited a significant requirement for training in several financial elements, including budget preparation, the compilation of financial statements, and resource mobilization.

In a study conducted by Mobegi, Ondigi, and Simatwa (2015), an investigation was carried out to examine the many factors that contribute to instances of financial mismanagement and embezzlement inside the public secondary schools located in Gucha District, Kenya. The results of this study indicate a significant prevalence of financial mismanagement inside public secondary schools. The significant cause of the financial mishandling can be mostly traced to the head teachers and their bursars. The aforementioned scenario was primarily influenced by two key factors: a deficiency in financial education and inadequate

internal control mechanisms, as indicated by the findings of this study. The aforementioned study emphasized the necessity of providing training for school administrators and their financial officers in the field of financial management.

A study conducted by Okiega, Onjera, and Nyabwanga (2012) in Kenya investigated the impact of accounting techniques on the administration of school funding within Kisii County. The study's findings indicate that a majority of public secondary schools engage in the practice of bookkeeping. Nevertheless, this study failed to provide clarification regarding the causal relationship between the adoption of up-to-date bookkeeping practices and the training received by school principals from KEMI.

In a study conducted by Mwangi (2015), the focus was on the factors that influence the implementation of projects in public secondary schools within Mathira Constituency, located in Nyeri county, Kenya. The findings of the study indicated that despite the school heads being equipped with knowledge on project management through the KEMI training, they still faced various challenges during the execution of project activities. The study conducted by Kinyua (2013) revealed comparable opinions regarding the influence of KEMI training on the efficacy of the project management course among secondary school principals in Kirinyaga County, Kenya. Based on the findings of this study, it is evident that there exists a necessity for sufficient training and readiness among school administrators in the field of project management.

Based on the aforementioned facts, it is evident that no previous study has been conducted to evaluate the impact of the KEMI management training on the financial management

abilities of principals in public secondary schools within Kakamega South Sub-County. Thus, the previously indicated condition represented the deficiency in the existing body of knowledge that the present study aimed to address.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter outlines the methodology employed by the researcher to conduct the study. This chapter encompasses several key aspects, specifically: research design, the research area under investigation, the study population, samples and the sampling strategy employed, development of the research instruments, considerations of validity and reliability, the procedure for data collecting, and finally, the methods employed for data analysis and presentation.

3.2 Research Design

The study employed a survey research design. The selection of this particular methodology was deemed favorable for the research due to the inherent capability of surveys to gather relevant and accurate data regarding the present state of a phenomenon, and, whenever feasible, to derive valid and overarching conclusions based on the uncovered facts (Borg and Gall, 1999). Secondly, this research design was also suitable for this study because it majorly entailed collection of quantitative data. Kothari (2003) observes that, this design is considered suitable for studies in which the individual is the unit of analysis which in this case was the principal. The design was important for the purpose of understanding a large group of principals who have undergone KEMI training between 2015 - 2020 by using statistics to make generalizations. It was in view of the foregoing attributes that this design was found relevant and useful for this study.

3.3 Study Location

This study was carried out in Kakamega South Sub-County of the Kakamega County. The Sub-County borders: Khwisero Sub-County to the South, Kakamega Central Sub-County to the North, and Kakamega East Sub-County to the East.

The sub-county has 30 public secondary schools which are registered by the ministry of education, science and technology.

The selection of the Sub-County for this research was based on its notable poverty rating, which is juxtaposed with its considerable agricultural potential. Therefore, it is imperative to emphasize the significance of investing in education to facilitate the social and economic advancement of the inhabitants within the sub-county. Given this perspective, it is imperative to exercise judicious resource management across all educational institutions within the sub-county..

3.3 Study Population

The study's population consisted of 31 principals and 31 account clerks/bursars selected from the 31 public secondary schools in Kakamega South sub-county, as well as the TSC County Director of Education for Kakamega County. All of the 31 principals had completed the KEMI training program in financial management, but the responsibility of managing the funds on a daily basis at the public secondary schools was entrusted to the 31 account clerks/bursars.

3.4 Sampling Techniques and Sample Size

3.4.1 Sampling Techniques

The researchers employed simple random sampling procedures in order to choose the participants for this investigation. A sampling frame was constructed to ease the selection

of a sample consisting of principals and bursars from all public secondary schools within the sub-county.

3.4.2 Sample Size Determination

The determination of sample sizes for the various demographic groupings, as presented in Table 3.1, was based on the recommendations outlined by Krejcie and Morgan (1970). The guidelines presented are based on the formula provided below:

$$\delta = \frac{x^2 NP(1-P)}{d^2(N-1) + x^2 P(1-P)}$$

Where;

δ = Required sample

x = Z value (e.g. 1.96 for 95% confidence level)

N = population size

P = population proportion expressed as decimal assumed to be 0.5 (50%)

d = degree of accuracy (5%) expressed as proportion (0.5); it is margin error.

The formula published by Krejcie and Morgan in 1970 has been utilized to create a table that outlines the appropriate sample size to be considered based on the population size. Hence, a sample size of 29 was employed for both principals and bursars/account clerks, selected from a population consisting of 31 individuals in each group. Table 3.1 presents the tabulated information about both the population and sample size.

Table 3. 1: Population and Sample

Category	Total population	Sample size
Principals	31	29
Accounts clerks/Bursar	31	29
Total	62	58

Source: Field data (2017)

3.5 Research Instruments

The research employed two sets of questionnaires to gather data from the participants who were chosen for the study. The two surveys were administered to the principals and the bursars/accounts clerks, respectively. Questionnaires were chosen as the preferred method of data collection due to its convenience in gathering information from a substantial number of participants (Kothari, 2004).

3.5.1 Questionnaire for the Principals

The questionnaire designed for principals is presented in Appendix (I). The instrument is partitioned into two distinct portions, labeled A and B, with each area dedicated to gathering information pertaining to objectives one and two, respectively. Section A consisted of seven items that mandated the principals to perform the following tasks: document the completed and unfinished school projects, specify the anticipated extent of work, and outline the actual extent of work undertaken. The principals were moreover mandated to articulate their perspectives on the influence of the KEMI training on their aptitude to effectively oversee initiatives within their respective educational institutions. Section B of the survey encompassed inquiries that facilitated the acquisition of data pertaining to the extent of debt reimbursement at public secondary educational institutions for the timeframe spanning from 2015 to 2020.

3.5.2 Questionnaire for Accounts Clerks/Bursars

The questionnaire designed for the accounts clerks/bursars is presented in appendix (II). The survey included both closed-ended and open-ended questions designed to gather

data pertaining to the third purpose. The study aimed to gather information regarding the degree to which the principals complied with the authorized accounting processes when managing the financial affairs of the school. The instrument encompassed many components that necessitated the bursars to evaluate the principals of their educational institutions based on two key aspects: their designated responsibilities in overseeing the allocation of school finances, and their proficiency and expertise in the realm of financial management. Finally, the participants were required to articulate their perspective regarding the efficacy of the KEMI training program for principals.

3.5.3 Administration of Research Instruments

The researcher personally administered the questionnaires to respondents in the various schools. This gave him an opportunity to make clarifications to the respondents whenever they misunderstood the items in the questionnaire.

3.6 Validity and Reliability of Research Instruments

3.6.1 Validity

According to Wellington (2000) and Doubley (2004), the concept of validity pertains to the degree to which the data collected in a study accurately reflects the variables under investigation. In order to establish the face and content validity of the instruments, the two supervisors contributed their professional judgment to enhance their validity.

3.6.2 Reliability

According to Chava and Davi (1996), reliability can be defined as the extent to which a research instrument produces consistent outcomes or data when subjected to multiple trials. The present study aimed to assess the reliability of the questionnaire administered to principals and account clerks. This was accomplished by use the Alpha Cronbach formula, which is outlined as follows:

$$\alpha = \frac{K_{r'}}{1 + (k - 1)r'}$$

The co-efficient of reliability that was obtained was 0.18 which implied that the questionnaires were highly consistent. This shows that the results obtained were highly reliable in analysis.

3.7 Piloting

The study's pilot phase took place at two Kakamega South Sub County public high schools. The aforementioned educational institutions were not included in the sample that was incorporated into the study. The utilization of piloting facilitated the opportunity to assess the efficacy of the research instruments prior to the commencement of the actual investigation. This experiment facilitated enhancements in the caliber of the devices.

3.8 Methods of Data Collection

A letter of permission to conduct the study and an introduction letter from the Dean of the School of Graduate Studies at Masinde Muliro University of Science and Technology were obtained prior to the researcher's departure for the field. This enabled the acquisition of a research permission from the National Commission for Science, Technology and Innovation (NACOSTI). Upon acquiring the necessary permit, the Kakamega County

Commissioner and the County Director of Education were duly informed regarding the proposed study. Following this, the County Director of Education for Kakamega County composed an introductory letter with the purpose of acquainting the researcher with the relevant responses in anticipation of data collection. Following the completion of data collection, the raw data underwent proper coding, tabulation, and subsequent analysis. This study employed both descriptive and inferential statistics to examine the gathered data.

Objective One: To determine the contribution of Kenya Educational Management Institute training for principals on project completion rates in the public secondary schools in Kakamega South Sub-County for the period 2015 to 2020.

In order to determine the contribution of KEMI training on the level of project completion rates in the public secondary schools, the questionnaire set for the principals (Appendix I) was used to collect the relevant data. This document sought information on the different types of projects that were implemented by the schools for the period 2015 to 2020. It also sought information on the expected scope of work for each project, versus the actual work covered on the project. This information was used to calculate the annual project completion rate for each project in a school which was measured on the ratio scale. Further to this, the mean project completion rates for all the projects in a school on an annual basis was then determined and tabulated for all the schools in the sub-county for the period 2015 to 2020. These annual means of the project completion rates were subsequently used for plotting a graph that showed the trend in the project completion rates in the schools over the period, 2015 to 2020. Finally, the one way ANOVA test was applied to test the level of the significance difference in the project completion rates in the public secondary schools

between the years, for the period 2015 to 2020. The formulae for determining both the project completion rates and the annual mean project completion rates are:

$$\text{a) Project completion rate} = \frac{\text{Actual work covered in the year}}{\text{Expected scope of work in the year}} \times 100$$

$$\text{b) Annual mean project completion rate} = \frac{\text{Project completion rates for all schools in the year}}{\text{Total number of schools in the sample}} \times 100$$

Objective Two: To determine the role of Kenya Educational Management Institute training for principals on debt repayment rates in the public secondary schools in Kakamega South Sub County for the period 2015 to 2020.

In order to determine the debt repayment rates, data was collected from the principals of the secondary schools by administering the questionnaire set for principals (Appendix I). The section B of this questionnaire had items that sought for information on the state of debt repayment in the school on an annual basis which reflected ratio scale. The debt repayment rate was determined by dividing the actual amount of money paid, by the total value of the goods or services purchased in each year for the period 2015 to 2020 (see below). The annual mean debt repayment rates for each school for the period 2015 to 2020, were calculated and tabulated. The mean debt repayment rates were then used to draw a graph to show the trend in the debt repayment rates over the said period of time. Finally, the one way ANOVA test analysis was carried out to determine the level of significance difference in the debt repayment rates in the public secondary schools between the years, for the period 2015 to 2020.

$$\text{Debt repayment rate} = \frac{\text{Actual amount of money paid to creditors in the year}}{\text{Total value of goods/services purchased in the year}} \times 100$$

Objective Three :To determine the contribution of Kenya Educational Management Institute training for principals on compliance to the approved accounting procedures by the principals of the public secondary schools in Kakamega South Sub-County for the period 2015 to 2020.

To determine the contribution of KEMI training on the compliance to the approved accounting procedures, a questionnaire set for the Bursars/Accounts Clerks (Appendix II) was administered to the school bursars or accounts clerks in the public secondary schools in the sub-county. This document collected qualitative information on the various items on ratio scale that constituted compliance to the approved guidelines and procedures. This information was collected for each school so as to determine the level of compliance to the guidelines on an annual basis, for the period 2015 to 2020. The qualitative data was then coded, quantified and lastly classified into five main categories of compliance, namely: Excellent, Very Good, Good, Poor and Very Poor. The percentage composition of the principals in each category of compliance in the period under review was then calculated and tabulated. Finally, the Chi-square analysis was carried out to test the level of significant difference in the level of compliance to the financial guidelines by the public secondary schools in the sub-county between the years, for the period 2015 to 2020.

Table 3. 2: A summary on data analysis per objective

Independent Variable					
Research objectives	Variables	Measurement scale	Data collection technique	Nature of analysis	Analysis technique
To determine the trend in the project completion rates by the principals of public secondary schools in Kakamega South Sub-County for the Period 2015 to 2020.	Project completion rate	Interval	Questionnaire set	Descriptive and inferential	A time series graph A one way ANOVA test
To determine the trend in the debt repayment rates by the principals of public secondary schools in Kakamega South Sub-County for the period 2015 to 2020	Debt repayment rate	Interval	Questionnaire set	Descriptive and inferential	A time series graph A one way ANOVA test
To determine the level of compliance to the accounting procedures by the principals in public secondary schools in Kakamega South Sub-County for the period 2015 to 2020	Compliance to the accounting procedures	Nominal	Questionnaire set	Descriptive and inferential	A bar graph Chi-square analysis

3.9 Ethical and Legal Considerations

The researcher took note of ethical issues so as to uphold the ethical requirements in the study. The following research etiquette was observed: Informed consent, privacy, confidentiality, anonymity and personal responsibility. For the purpose of upholding informed consent, the respondents were orally informed on the purpose, procedures and benefits of the study before they were engaged to provide data. This was to ensure that the respondents voluntarily made a decision to participate in the study. The privacy and

confidentiality of the participant was accorded a high priority. To achieve this, the researcher ensured that all the information that was collected was used for the purpose of this study alone, and that it was not passed to the third party. Finally, the researcher ensured that all the respondents remained anonymous and did not provide their names or any other form of identification. Finally, the researcher took personal responsibility to ensure that the foregoing commitments were upheld.

CHAPTER FOUR

PRESENTATION OF FINDINGS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter covers the findings of a research conducted to evaluate the impact of educational management training on the financial management abilities of principals in public secondary schools located in Kakamega South Sub-County, Republic of Kenya.

This was accomplished by pursuing the following three objectives:

- i) Determine the contribution of Kenya Educational Management Institute training for principals on project completion rates in public secondary schools in Kakamega south sub-county for the period 2015-2020.
- ii) Evaluate the role of Kenya Educational Management Institute training for principals on debts repayment rates in public secondary schools in Kakamega south sub-county for the period 2015 - 2020.
- iii) Assess the contribution of Kenya Educational Management Institute Training for principals on the levels of compliance to the approved accounting procedures in public secondary schools in Kakamega south sub-county for the period 2015-2020.

The findings of this study have been presented in various formats, analyzed and discussed accordingly in this chapter.

4.2 Description of Variables Used in the Analysis

Table 4.1 presents a description of the variables used in the analysis of the data. These are measured on nominal (dummy and categorical), ordinal as well as interval scales.

Table 4.1: Description of the Variables Used in the Analysis

Variable name	Variable label	Scale
p2015a	Project type	Nominal: Categorical
p2015b	Project status	Nominal: Dummy
p2015d	Project remarks	Nominal: Categorical
p11	Male principal	Nominal: Dummy
p13	Principal's education qualification	Nominal: Categorical
p14	Principal's experience	Nominal: Categorical
p15	School clusterization	Nominal: Categorical
p16	School classification	Nominal: Categorical
p21	Reason for delayed project	Nominal: Categorical
p22	Yes, KEMI training helped in project completion	Nominal: Dummy
p22a	How KEMI course helped in project implementation	Nominal: Categorical
p23	Principal's rating in project performance	Nominal: Categorical
p242015p-20p	Stalled projects 2015-2020	Nominal: Categorical
p242015r-20r	Reason for stalled project 2015-2020	Nominal: Categorical
p25	Diversion of funds	Nominal: Dummy
p26	Yes diverted coz of irregular fee payment	Nominal: Dummy
p27a	Faced challenges in project funds sourcing	Ordinal
p27b	Faced challenges in budgeting	Ordinal
p27c	Faced challenges in procurement	Ordinal
p27d	Faced challenges in financial reporting	Ordinal
p28	Other financial challenges in project management	Nominal: Categorical
p312015a-20a	Total value of sch purchases	Interval
p312015b-20b	Amount paid	Interval
p312015c-20c	Amount outstanding	Interval
p312015d-20d	% of outstanding amount	Interval
p31a	Mean of purchases 2015a-2020a	Interval
p31b	Mean of amount 2015b-2020b	Interval
p31c	Mean of balance 2015c-2020c	Interval
p31d	% of outstanding (mean) 2015d-2020d	Interval
p32	KEMI training has helped in debt servicing	Nominal: Dummy
p33	Usefulness of KEMI training	Nominal: Categorical
p34	Self rating of debt payment after KEMI training	Nominal: Categorical
p35	Areas of emphasis in future KEMI training	Nominal: Categorical

Source: Field Data

4.3 General and Demographic Information

This section presents general and demographic information about the study sample. In this study, data were collected from the principals of twenty nine public secondary schools in Kakamega South Sub-County, on their financial management ability after undergoing the KEMI management training. A total of 58 respondents were contacted, out of whom 29 were the principals and another 29 were the school bursars/accounts clerks. All participants in the study provided their responses, resulting in a response rate of 100%. Mugenda and Gitau (2009) assert that a response rate of 30% or above is considered satisfactory. A response rate of 50% might be considered satisfactory, while a response rate of 70% or higher is deemed exceptional for the purpose of generalizing findings from a sample to the complete population from which the sample was derived. As a result, the study achieved a commendable response rate, which enhances the potential for generalizability of the findings.

This section presents details regarding the participants and the public secondary schools that were included in the research. Among the cohort of 29 school principals, it was observed that four individuals, constituting approximately 13.8% of the total, fell within the age range of 41-45 years. Conversely, the majority of principals, namely 25 individuals accounting for approximately 86.2% of the total, belonged to the age bracket of 46 years and above. Fifty-eight point six percent of the secondary school principals, namely seventeen individuals, possessed prior experience as high school principals for a duration ranging from 11 to 20 years. Additionally, a total of seven principals, accounting for

24.1% of the sample, had accumulated over twenty years of experience in their roles as principals. Finally, a mere five principals, accounting for 17.3% of the total, possessed a professional background of ten years or less in the role of high school principal. Among the total of 29 public secondary schools analyzed, it was observed that three schools (10.3%) fell under the extra county classification, an additional three schools (10.3%) were categorized as County schools, while the other twenty three schools (79.4%) were classified as Sub-County schools.

4.4 Objective 1: Determine the contribution of Kenya Educational Management Institute Training for Principals on project completion rates in public secondary schools in Kakamega south sub-county for the period 2015-2020.

The first objective of this study was to determine project completion rates by the principals of the public secondary schools in Kakamega South Sub-County for the period 2015 to 2020. This task was achieved by calculating the project completion rates for each individual school in each calendar year over the aforesaid period. Eventually, the mean project completion rates for the sampled schools were calculated for each calendar year for the period 2015 to 2020. The annual mean project completion rates that were derived were critical in determining the trend in the project completion over the period 2015 to 2020.

4.4.1 Determination of the project completion rates for the public secondary schools in Kakamega South Sub-County for the period 2015 to 2020.

The first task in this study was to determine the project completion rates in the public secondary schools in the Kakamega South Sub-County for the period 2015 to 2020. To achieve this, data on the annual status of project implementation in the sampled public

secondary schools in the Sub-County was collected. The aforementioned data was then substituted into the following formula so as to determine the project completion rate for each school, in each calendar year for the period 2015 to 2020.

$$\text{Project completion rate} = \frac{\text{Actual work covered in the calendar year}}{\text{Expected scope of work in the calendar year}} \times 100$$

After calculating the project completion rate for each school in each calendar year, the annual mean project completion rates for all the schools in each of the six calendar years was then determined. This was achieved by adding the project completion rates for the individual schools in each calendar year, divided by the total number schools in the sample, as expressed in the formula below:

$$\text{Annual mean project completion rate} = \frac{\text{Project completion rate for all schools in the year}}{\text{Total number of schools in the sample}}$$

The data on the annual mean project completion rates for the public secondary schools in the Kakamega South Sub-County is tabulated as shown in table 4.2.

Table 4.2: Annual mean project completion rates (PC Rates) in public secondary schools in Kakamega South Sub-County for the period 2015 to 2020

Year	Schools	Mean PC Rates (%)	SD	Min PC Rates (%)	Max PC Rates (%)
2015	29	53.10	7.24	45	70
2016	29	57.76	6.06	50	75
2017	29	62.76	6.06	55	80
2018	29	68.28	5.55	60	80
2019	29	73.62	5.49	65	85
2020	29	82.59	5.60	75	95

Note. PC=Project Completion; SD=Standard Deviation; Min=Minimum; Max=Maximum

Table 4.2 shows the annual mean project completion rates for the period 2015 to 2020. According to the findings, the mean project completion rates were lowest at 53.10% in the year 2015. In this year, the school with the lowest projection project completion rate

recorded 45%, while that with the highest completion rate registered 70%. On the whole, 82.59% was the highest mean project completion rate, and it was achieved the year 2020. In this year, the school with the lowest project completion rate recorded 75%, while that with the highest achieved a 95% project completion rate. The standard deviation (SD) of the project completion rates among the schools in each calendar year tended to reduce as from 2015 to 2020. Generally, there was a gradual improvement in the mean project completion rates as from the year 2015 to 2020. This implied that after the principals of the public secondary school underwent the management training at KEMI, their abilities to manage and implement the school projects improved. The said improvement was demonstrated by the high project completion rates in the subsequent calendar years. The trend of the project completion rates in the public secondary schools in the sub-county has been expressed graphically in Figure 4.1.

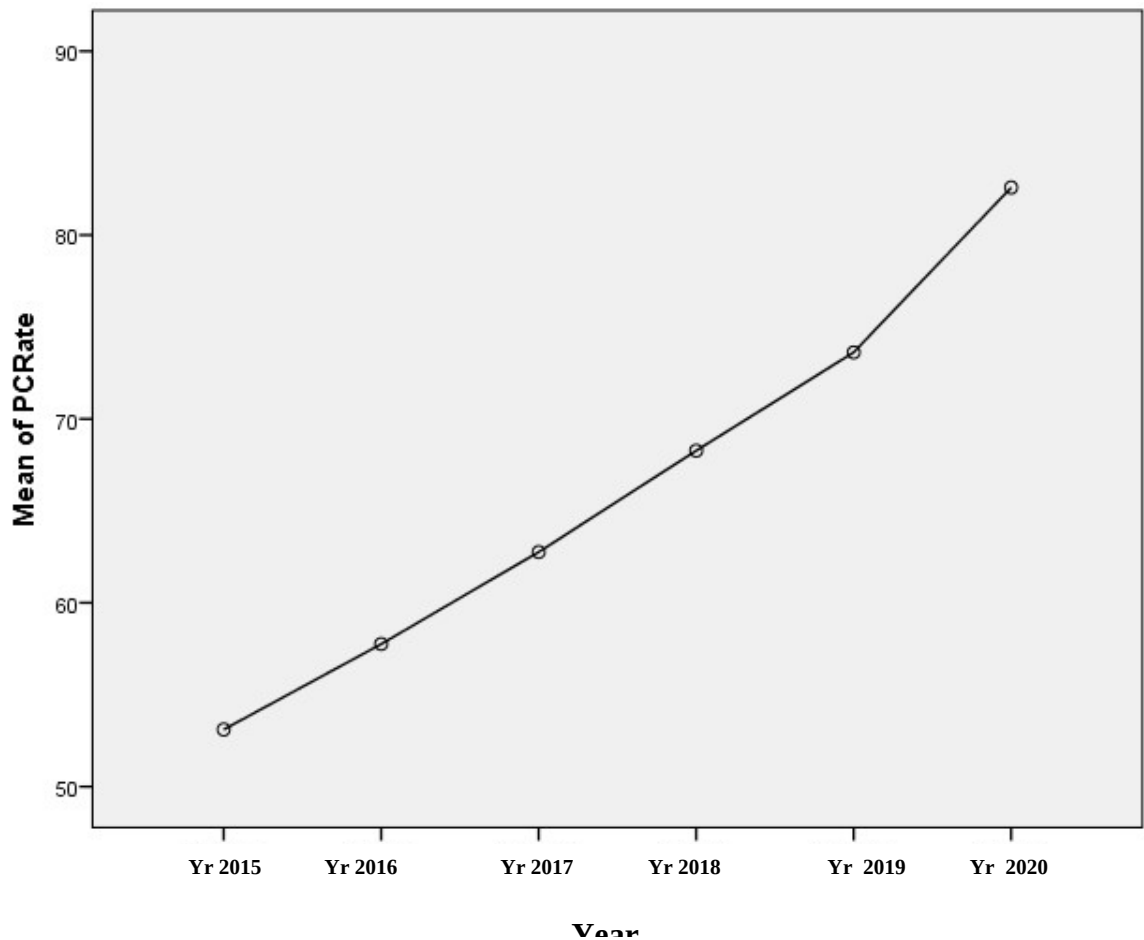


Figure 4.1: Effect of Kenya Educational Management Institute training on the project completion rates in the public secondary schools in the Kakamega South Sub-County for the period 2015-2020

Figure 4.1 shows the changes in the project completion rates in the public secondary schools in the Kakamega South Sub-County for the period 2015 to 2020. The data suggest that there was a gradual improvement in the project completion rates in the public secondary schools in Kakamega South Sub-County over the period 2015 to 2020. The year 2015 marked the period when the school principals had just received training in financial management from KEMI. Figure 4.1 shows that the mean project completion rates in public secondary schools was lowest in 2015 at 53.10% but was highest five years later in

2020 at 82.59%. From the foregoing results, it is apparent that over time (2015-2020), the principals improved in their abilities to implement and manage the projects in their respective schools.

4.4.2 Testing the Hypothesis

The null hypothesis for objective one stated that there was no statistically significant difference in the contribution of the Kenya Educational Management Institute training on project completion rates in the public secondary schools in the Kakamega South Sub-County for the period 2015 to 2020.

To facilitate for the testing of the above hypothesis, the project completion rates for each school were calculated for every calendar year for the period 2015 to 2020. Then the ANOVA test analysis was applied to test the significance difference in the project completion rates of the schools between the six calendar years (2015 to 2020). The results of the ANOVA analysis are as shown in table 4.3.

Table 4.3: ANOVA test analysis for the project completion rates in public secondary schools in Kakamega South Sub-County for the period 2015 to 2020

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	16888.649	5	3377.730	92.738	.000
Within Groups	6118.966	168	36.422		
Total	23007.615	173			

Source: SPSS Anova analysis

Table 4.3, shows the results of the ANOVA analysis for the public secondary schools in the Kakamega South Sub-County for the period 2015 to 2020. The p-value between the groups is less than 0.05 ($p < 0.05$) implying that there was a statistically significant difference in the project completion rates between the years (2015 to 2020), for the projects

that were implemented by the public secondary schools in Kakamega South Sub-County. Consequently, the null hypothesis was rejected. These results suggest that after attending the KEMI management training, the principals of the public secondary schools in the Sub-County improved in the way they implemented the projects in their respective schools in each subsequent year of their service, for the period 2015 to 2020. The findings of the current study seem to concur with those in a study that was carried out by Jeselsikis and Ashely (1991). The duo designed a predictive model which showed that the success of a project or its completion was dependent on many characteristics, among them was the training of the project managers. According to them, training was an important aspect that could affect the quality of project planning, hence contributing significantly to its success. The above view was also underlined by Shehu and Akintoye (2001) who argued that for any project to succeed the manager should have the ability to plan, monitor and execute the project.

4.4 Objective 2: Evaluate the role of Kenya Educational Management Institute Training for Principals on debt repayment rates in public secondary schools in Kakamega south sub-county for the period 2015 - 2020.

The purpose of the second objective was to evaluate debt repayment rates of public secondary schools in Kakamega South Sub-County for the period 2015 to 2020.

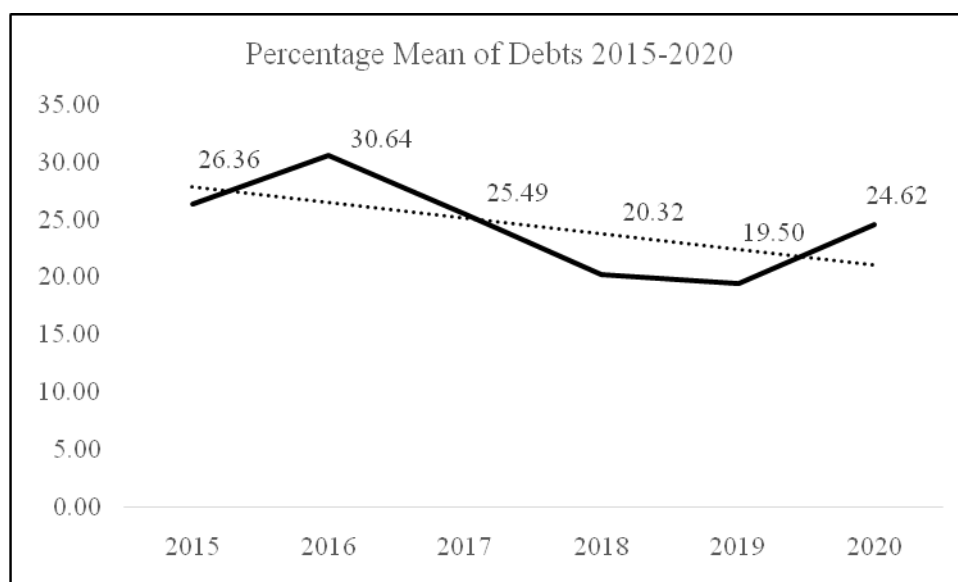
4.4.1 Univariate Statistics for the Outcome Variable in Objective 2

The univariate statistics for debt repayment for the period 2015-2020 suggest an improvement over the years. Table 4.4 and Figure 4.2 present the summary statistics for the same.

Table 4.4. Summary Statistics for Percentage of Outstanding Debts 2015-2020

Variable	N	Mean	Std. Dev.	Min	Max
% of outstanding debt 2015	13	26.36	22.48	0	73.96
% of outstanding debt 2016	13	30.64	28.47	0	85.77
% of outstanding debt 2017	15	25.49	21.51	0	79.94
% of outstanding debt 2018	17	20.32	19.59	0	77.81
% of outstanding debt 2019	18	19.50	19.98	0	67.58
% of outstanding debt 2020	18	24.62	30.79	0	92.67

Note. Std. Dev=Standard Deviation; Min=Minimum; Max=Maximum

**Figure 4.2: Trendline for the Percentage Mean of Debts for the Period 2015-2020**

The results suggest a marked improvement in debt repayment from 2016 to 2019. The worst year of debt portfolio was 2016 at 30.64%. The averages for the rest of the years are lower compared with 2019. The trendline in Figure 4.2 suggests a consistent improvement in debt management over the years. The principals suggested that the KEMI training had been useful to them. Table 4.5 presents data on the usefulness of the KEMI training to Principal's.

Table 4.5: Usefulness of KEMI Training to Principal's

Variable	Freq.	%	Cum.
61=Prudent financial management	4	26.67	26.67
62=Improved operations	2	13.33	40
63=Improved prioritization	5	33.33	73.33
64=Improved budgeting	4	26.67	100
Total	15	100	

Note. Freq.= Frequency; Cum.=Cumulative

Out of the 15 principals who provided data on this variable, four (26.67%) suggested that the training helped them on prudent financial management while a similar number indicated it improved them on budgeting.

4.4.2 Bivariate Estimates between the Outcome Variable and its Correlates in Objective 2

Table 4.6 presents the correlation matrix between the outcome variable (p31d, mean percentage of outstanding debt) and its correlates in Objective 2. The results suggest that principals who are aged 45 years and above (p12) and challenges with KEMI training (p13) have a statistically significant negative correlation with outstanding debt with Pearson correlation coefficient values of 0.5348 ($p=0.015$) and 0.5083 ($p=0.037$) respectively.

Table 4.6: Correlation matrix between the outcome variable (p31d) and its correlates, Objective 2.

Variable		p31d	p11	p12	p13	p14	p15	p16
p31d		1						
p11	a	-0.260	1					
	b	0.268						
p12	a	-0.5348*	0.100	1				
	b	0.015	0.620					
p13	a	0.317	0.170	-0.059	1			
	b	0.174	0.398	0.769				
p14	a	-0.070	0.154	0.232	0.098	1		
	b	0.769	0.442	0.245	0.626			
p15	a	0.251	0.218	-0.131	-0.222	-0.253	1	
	b	0.287	0.274	0.515	0.266	0.204		
p16	a	-0.083	-0.7205*	0.040	-0.086	-0.067	-0.019	1
	b	0.728	<.001	0.842	0.671	0.741	0.926	
p32	a	0.011	-0.189	-0.151	0.032	-0.262	-0.247	0.174
	b	0.965	0.345	0.452	0.874	0.186	0.213	0.385
p33	a	0.308	0.371	-0.327	0.444	0.317	-0.175	-0.6370*
	b	0.330	0.173	0.234	0.097	0.250	0.533	0.011
p34	a	0.016	0.192	-0.096	0.093	0.044	0.220	-0.138
	b	0.948	0.339	0.635	0.643	0.826	0.271	0.492
p35	a	-0.265	0.263	0.268	-0.468	-0.163	0.019	-0.169
	b	0.405	0.307	0.299	0.058	0.531	0.941	0.517
p36	a	-0.5083*	0.4637*	0.240	-0.096	0.183	-0.068	-0.342
	b	0.037	0.030	0.283	0.671	0.415	0.764	0.120

“Note: a=Pearson correlation coefficient; b=p-values ($\alpha=0.05$); Pair-wise correlation: ≤ 0.35 = Weak correlation; $0.36-0.67$ = Moderate correlation; $0.68-0.89$ =Strong correlation; ≥ 0.90 = Very strong correlation; Adapted from Interpretation of correlation coefficient, by R. Taylor, 1990, Journal of Diagnostic Medical Sonography, 6(1), p. 37”

4.4.3 Multivariate Modeling of the Drivers of Debt Repayment in Objective 2

Since principals aged 45 years and above (p12) and challenges with KEMI training (p36) were significantly correlated with the debt portfolio, these variables were pursued further

in multiple linear regression models to estimate their effect. We fitted a model with k

independent predictor variables $x_1, \dots, x_k$ and one response/ outcome variable y . We wrote

this as

$$y = \beta_0 + \beta_1 x_1 + \dots + \beta_k x_k + \epsilon \tag{4.1}$$

Where:

y The predicted value of the response/ outcome variable (school KCSE mean

$[y = 0, \dots, 74.92]$
score)

β_0 The y-intercept (value of y when all other parameters are set to 0)

$\beta_1 x_1$ The regression coefficient β_1 of the first independent variable x_1

$\beta_k x_k$ The regression coefficient β_k of the last independent variable x_k

€

The error term (how a given statistical model differs from reality)

The final model (2) was fitted as

$$y = \beta_0 + \beta_1 1.p12x_1 + \beta_2 81.p36x_2 + \beta_3 82.p36x_3 + \beta_4 84.p36x_4 + \epsilon$$

Where

$1.p12$ $y = 2.08, \dots, 7.69$
% of outstanding debt (Mean) 2015d-2020d,)

$1.p12$ $0.p12$
Principal is aged 45+ years (ref: Principal is aged <45 years)

$81.p36$
Congested & crashed programme

$82.p36$
Lack of hands-on training

$84.p36$
Poor facilitators

$83.p36$ $82.p36$
Note. dropped from modelling because of collinearity with

Table 4.7 presents the results for the first and second models.

Table 4.7: Multiple linear regression coefficients of the effect of KEMI Training on Debt Repayment

Variable	Variable label	Model 1 (p31d)			Model 2 (p31d)		
		U.Coef	p	β	U.Coef	p	β
1.p12	Principal is 45+yrs	-34.23	0.068	-0.535	-30.03	0.136	-0.47
81.p36	Congested & crashed programme (Ref)						
82.p36	Lack of hands-on training				1.23	0.844	0.02

84.p36	Poor facilitators				-15.62	0.024	-0.35
Constant		51.79	0.008	n/a	51.79	0.012	n/a
n			20			20	
R ²			0.2860			0.4088	
Root Mean Squared Error (RMSE)			17.1040			16.5080	

“Note. U.Coef=Unstandardized Coefficient; RMSE=Standard deviation of the regression model (the closer to zero better the fit)”

Model 1 estimates the effect of principals aged 45 years and above on debt portfolio, management and repayment. The model suggests a marginal negative effect of 34.23% ($p=0.068$) compared with principals aged below 45 years. Model 2 controls for the challenges encountered during KEMI training. This is a four-level categorical variable where 81=Congested & crashed programme (reference category); 82=Lack of hands-on training; 83=Long distance to venue; and 84=Poor facilitators. The results suggest that poor facilitators during training do not add value and in fact account for a negative 15.62% ($p=0.012$) effect on debt management and repayment. The final model is statistically significant at $p=0.008$ and accounts for up to 40.88% of the variation in debt management and repayment.

4.4.3.1 Model Diagnostics.

The researchers conducted two post-estimation diagnostic tests in order to assess the goodness-of-fit of the multiple linear regression model to the data. One of the initial tests conducted was the skewness/kurtosis test to assess the normalcy of the data. The null hypothesis was tested to determine whether the residuals followed a normal distribution. If

the p-value is less than 0.05, the null hypothesis is rejected, leading to the conclusion that the residuals do not follow a normal distribution. In the present study, the calculated p-value is 0.7304, which is above the predetermined significance level of 0.05. Consequently, we are unable to reject the null hypothesis at a 95% confidence level. As a result, we can infer that the residuals exhibit a normal distribution. The subsequent examination is referred to as the "linktest". The following is a Stata command that performs a model specification test following the execution of the regress command. The purpose of this procedure is to assess the necessity of additional variables in our model. This is achieved by doing a new regression analysis, where the observed dependent variable $Y(p31d)$ is regressed against the predicted independent variable $\hat{Y}$ (or X) and the squared predicted independent variable $\hat{Y}^2$. The focal point of inquiry pertains to the importance of $_hatsq$. The null hypothesis posits that there is no presence of specification error. If the p-value associated with the $_hatsq$ statistic is not statistically significant, we do not have sufficient evidence to reject the null hypothesis. Consequently, we can infer that our model is appropriately defined. In our particular scenario, the value of p for the $_hatsq$ variable is determined to be approximately 0.996. As a result, we do not find sufficient evidence to reject the null hypothesis, leading us to the conclusion that our model is appropriately stated. The findings of this test are presented in Table 4.8.

Table 4.8: Link test for Model Specification

p^{31d}	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
$_hat$	1	1.00	1.00	0.334	-1.14	3.14
$_hatsq$	-9E-10	0.02	0.00	0.996	-0.04	0.04
$_cons$	-3E-07	12.31	0.00	0.978	-26.40	26.40

4.2.3.2 Hypothesis Testing for Objective 2.

The null hypothesis under Objective 2 stated that there was no statistically significant difference of the role of Kenya Educational Management Institute training on debt repayment rates in the public secondary schools in the Kakamega South Sub-County for the period 2015 to 2020. After fitting the final multiple regression model in Table 4.6, a Stata command “test” was used followed by the variable(s) of interest, in this case 1.p12 and all the categories of p36 in the model as shown in the Stata output hereunder:

```
test 1.p12
( 1) 1.p12 = 0
F( 1, 16) = 2.46
Prob > F = 0.1365
```

```
. test 82.p36
( 1) 82.p36 = 0
F( 1, 16) = 0.04
Prob > F = 0.8443
```

```
test 84.p36
( 1) 84.p36 = 0
F(1, 16) = 6.26
Prob > F = 0.0235
```

The results suggest that controlling for the other covariates in the model, poor facilitators during KEMI trainings (84.p36) have a statistically significant effect ($p=0.0235$) of -15.62% on the principals’ debt portfolio, management and repayment. With this result, we reject the null hypothesis and conclude that certain aspects of KEMI training have an effect on the principals’ debt portfolio, management and repayment.

4.4.3.3 Discussion of the Findings for Objective 2

A study by Dekker and Schalkwyk (2007) found that most school debts in secondary schools in Africa are attributed to the non-payment of school fees, and that this impacted

negatively on the infrastructural development of most schools. Similar findings were found by Pedzisai and Tsevere (2013) on the basis of the findings of a study on Debtors Management in Gokwe East Cluster Day Schools; Gokwe South District in Zimbabwe. The findings of this study suggest that the schools development projects were stalled by the non-payment of fees and the poor procurement of the learning materials. They, however, recommended that educating parents on the need to pay fees in addition to engaging the services of debt collectors could help redress the problem around debt management and repayment. The foregoing studies seem to agree with the current study regarding the role that education plays in managing/controlling school debts. Apparently, a school manager who has received good training in financial management is more informed and cautious on the need to control the school debt portfolio within the manageable levels.

4.5 Objective 3: Assess the contribution of Kenya Educational Management Institute Training for Principals on the level of compliance to the approved accounting procedures in public secondary schools in Kakamega south sub-county for the period 2015-2020.

The purpose of the third and last objective of this study was to determine level of compliance to the accounting procedures by the principals of the public secondary schools in Kakamega South Sub-County for the period 2015 to 2020. To determine the levels of compliance to the approved accounting procedures, qualitative data was collected from the bursars or accounts clerks of public secondary schools in the Kakamega South Sub-County for the period under review. The qualitative data was then coded and classified into five main categories of compliance, namely: Excellent, Very Good, Good, Poor and Very Poor. The percentage composition of the principals in each category of compliance in the period

under review, was then calculated and tabulated. Finally, the Chi-square analysis was carried out to test the level of significant difference in the level of compliance to the financial guidelines by the public secondary schools in the sub-county between the years, for the period 2015 to 2020.

4.5.1 Determination of the levels of compliance to the accounting procedures by the principals of the public secondary schools in Kakamega South Sub-County for the period 2015 to 2020

In addition to the qualitative data which was collected from the school bursars/clerks; these officers were also requested to classify the principals of their schools into five main categories of compliance to the accounting procedures, for the said period of time. The percentage composition of the principals in each category of compliance for the period under review was then calculated and tabulated as shown in table 4.9.

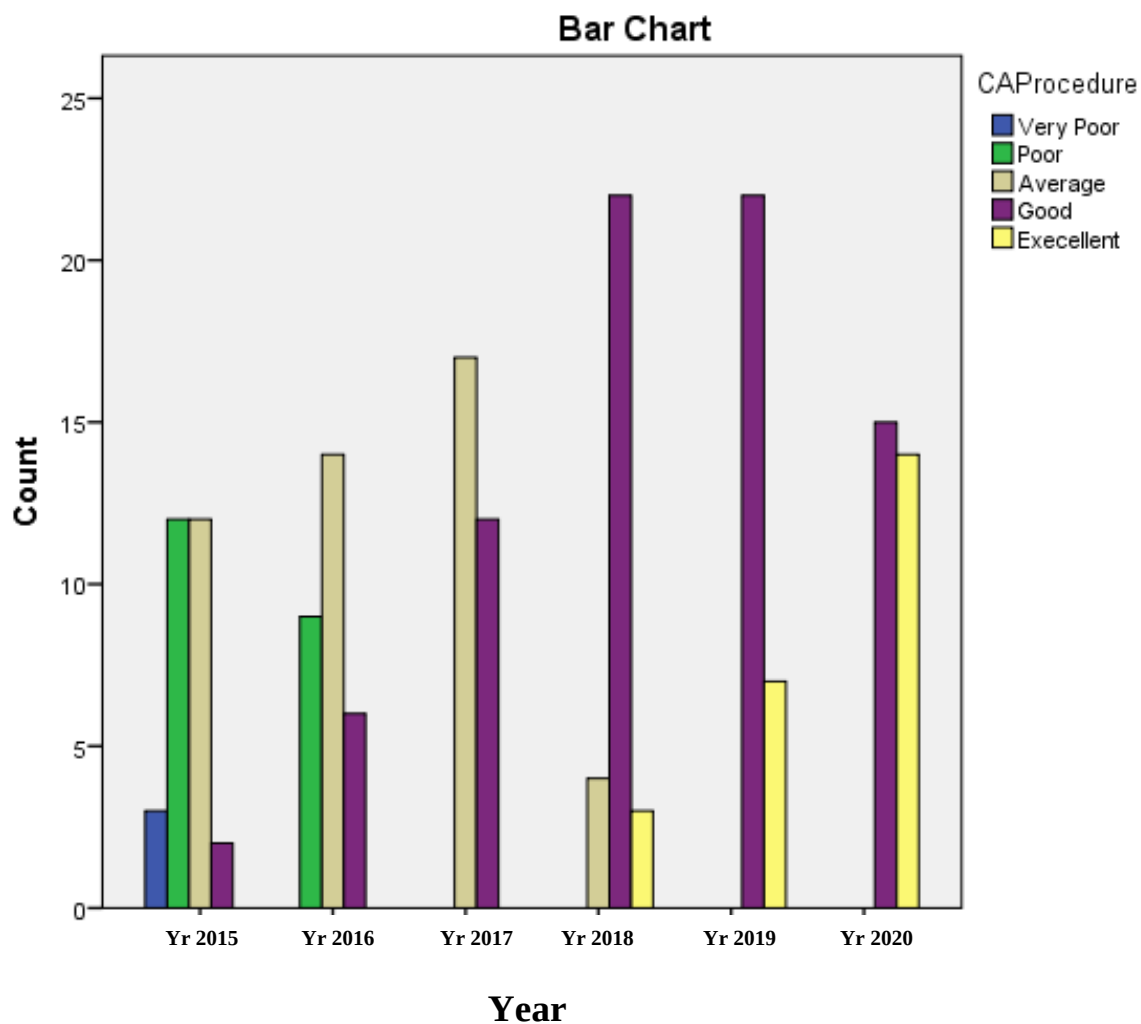
Table 4.9: Compliance to the accounting procedures by the principals of the public secondary schools in Kakamega South Sub-County for the period 2015 to 2020.

Compliance Levels	Very Poor	Poor	Average	Good	Excellent	Total
Year						
2015	10.3%	41.4%	41.4%	6.9%	0.0%	100.0%
2016	0.0%	31.0%	48.3%	20.7%	20.7%	100.0%
2017	0.0%	0.0%	58.6%	41.4%	0.0%	100.0%
2018	0.0%	0.0%	13.8%	75.9%	10.3%	100.0%
2019	0.0%	0.0%	0.0%	51.7%	48.3%	100.0%
2020	0.0%	0.0%	0.0%	51.7%	48.3%	100.0%

Source: Bursars'/Account Clerks Questionnaire (2020)

Table 4.9 shows the levels of compliance to the accounting procedures by the principals of public secondary schools in Kakamega South Sub-County. In 2015, a majority (51.7%) of the secondary school principals were categorized as either poor or very poor in terms of compliance to the accounting procedures. The year 2015, was the first year immediately after receiving the management training at KEMI. These results meant that 51.7% of the school principals in the Sub-County were not conforming to the expected standards of accounting for public resources in their schools during the first year after training. Additionally, in the same year only 6.9% of the secondary school principals were perceived to be good at complying with the accounting procedures. It is, however, quite apparent in table 4.5 that in the subsequent years, the school principals improved in their levels of compliance to the accounting procedures. For example by 2018, a majority (86.2%) of the principals were in the category of good and excellent with regard to compliance to the accounting procedures. In this same year, only 13.8% of the principals were considered to have averagely complied with the procedures . By the year 2020, all

the 29 principals, an equivalent of one hundred percent (100%) were considered to have achieved the status of good (51.7%) and excellent (48.3%) in compliance to the accounting procedures. These findings are displayed further in Figure 4.3 which shows the actual number of school principals in the Sub-County who fall in the different categories of compliance to the accounting procedures. In 2015, three principals out of a sample of twenty nine were considered to be poor at complying with the accounting procedures, while only two were perceived to be good. However, by 2020, fifteen out of the twenty nine principals were considered to be good in compliance, while fourteen out of the twenty nine were considered to be excellent in compliance to accounting procedures. In 2020, none of the principals was found to be in the last three categories of compliance. These results suggest that after receiving the training in management, the principals' tendency to comply with the accounting procedures improved progressively with time, from 2015 to 2020.



Note. CA Procedure= Compliance to accounting procedures; Count= The number of secondary school principals

Figure 4.3: The levels of compliance to the accounting procedures by public secondary school principals in Kakamega South Sub-County for the period 2015 to 2020

4.5.2 Testing the Hypothesis for Objective 3

H₀₃: There is no statistically significant difference on contribution of Kenya Educational Management Institute training on the levels of compliance to the accounting procedures by the principals of the public secondary schools in the Kakamega South Sub-County between the years, for the period 2015 to 2020. In order to test the above null hypothesis, the data on the principals' level of compliance to the accounting procedures for the period 2015 to 2020 was subjected to the Chi-square analysis. The results are as shown in this analysis are as shown in table 4.10.

Table 4.10: The Chi-square analysis results for the compliance to the accounting procedures by the principals of the public secondary schools in the Sub-County for the period 2015-2020.

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	158.708 ^a	20	<.001
Likelihood Ratio	175.861	20	<.001
N of Valid Cases	174		

Source: SPSS Chi-Square Analysis

Table 4.10 shows the results of the Chi-square analysis for the public secondary schools in the Kakamega South Sub-County for the period 2015 to 2020. The p-value between the groups is less than 0.05 ($p < 0.05$), thus implying that there was a significant difference in the public secondary school principals' level of compliance to the accounting procedures in the Sub-County over the period of the six calendar years, from 2015 to 2020. Consequently, the null hypothesis was rejected. These results imply that, after

attending the KEMI management training, the principals of the public secondary schools in Kakamega South Sub-County improved in the area of compliance to the accounting procedures in each subsequent year for the period 2015 to 2020. The findings of this study seem to agree with a number of studies conducted in this area. A notable investigation was carried out in Northern Uganda by Odubuker (2007), examining the correlation between training programs for head teachers and the enhancement of financial management competencies. The findings of this study indicate a statistically significant positive correlation between financial management training and the managerial competencies of head teachers in the realm of school finances. In a study conducted by Okioga, Onjera, and Nyabwanga (2012), the impact of accounting practices on the administration of school funds in public secondary schools in Kisii Central, Kenya was examined. The findings indicated that a significant number of schools effectively maintained their financial records, particularly following participation in financial management training.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This section provides a concise overview of the results as outlined and analyzed in the preceding fourth chapter. This chapter provides a concise overview of the study's findings, the conclusions derived from the findings, and the recommendations put out based on the study's results.

5.2 Summary of the study

The objective of this study was to evaluate the impact of training provided by the Kenya Educational Management Institute on the financial management abilities of principals at public secondary schools located in Kakamega South Sub-County, Kenya, during the period from 2015 to 2020. The study's results were synthesized based on three key factors: the rates of project completion in public secondary schools, the rates of debt repayment by public secondary schools, and the level of adherence to accounting procedures by principals of public secondary schools.

5.2.1 The Project Completion Rates in Public Secondary Schools in Public secondary Schools in Kakamega South Sub County for the period 2015 to 2020

The first objective of this study was to: determine the trend in the project completion rates in the public secondary schools in Kakamega South Sub-County for the Period 2015 to 2020. The results of the study showed that after the public secondary school principals underwent the educational management training, the project completion rates of their schools gradually improved from a mean of 53.10% in 2015 to a mean of 82.59% in 2017.

The one way ANOVA analysis revealed that there was a statistically significant difference in the project completion rates for the projects that were implemented in the public secondary schools in the sub-county for the period 2015 to 2020. The p-value between the six calendar years was less than 0.05 ($p < 0.05$).

5.2.2 The Debt Repayment Rates of Public Secondary Schools in Kakamega South Sub- County for the period 2015 to 2020

The second objective of this study was to: determine the trend in the debt repayment rates by the public secondary schools in Kakamega South Sub County for the period 2015 to 2020. The results of the study showed that poor facilitators during KEMI training sessions could have up to negative 15.62% effect on principals ability to effectively manage their debt portfolios.

5.2.3 The Compliance to Accounting Procedures by the Principals of the Public Secondary Schools in Kakamega South Sub-County for the period 2015 to 2020

The purpose of the third and last objective of this study was to: determine the level of compliance to the accounting procedures by the principals of the public secondary schools in Kakamega South Sub-County for the period 2015 to 2020. The findings of the study showed that after the principals of the public secondary schools underwent the educational management training, their levels of compliance to the accounting procedures immensely improved from the ratings of 2015 when a majority (51.7%) of them were categorized as being either poor or very poor in compliance, to better ratings in 2020 when all the principals (100%) were in the category of either good or excellent in terms of compliance

to the accounting procedures. The Chi-square analysis revealed that there was a significant difference in the principals' levels of compliance to the accounting procedures over the six year period, as from 2015 to 2020. The p-value between the six years was less than 0.05 ($p < 0.05$).

5.3 Conclusions

Based on the findings, this study concludes that:

- i) The educational management training offered by KEMI enabled the principals of the public secondary schools in Kakamega South Sub-County to improve on the completion rates of the projects that were implemented in their schools.
- ii) The educational management training offered by KEMI improved the abilities of the principals of the public secondary schools in Kakamega South Sub-County to prudently manage and repay the school debts.
- iii) The educational management training offered by KEMI helped the principals of the public secondary schools in Kakamega South Sub-County to appreciate the need to comply with the approved accounting procedures.

5.4 Recommendations

This study makes the following recommendations on the basis of the conclusions that were drawn:

5.4.1 Policy Recommendations

On the basis of the findings of this study, the following policy recommendations were made:

- i) The KEMI should organise a regular in-service/refresher training for the secondary school principals on financial management to help with their debt portfolio management and repayment.
- ii) The KEMI should source and provide experienced and hands-on facilitators during KEMI training sessions if the programme for the programme to achieve full benefits and meet its intended goal of equipping the principals on matters finance in their schools.
- iii) That future KEMI training sessions should prioritize intensive training around auditing and book keeping (17.65% of responding principals), financial management (58.82%), procurement (17.65%) and frequent capacity building (5.88%).

5.4.2 Recommendations for Further Research

- i) Based on the obtained results, this study proposes the following recommendations for future research endeavors. A study should also be conducted to assess the impact of the KEMI training on the management of human and physical resources in public secondary schools in Kenya.
- ii) A study should be conducted to examine the effect of stakeholders on financial management in public secondary schools in Kenya.

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APPENDICES

APPENDIX I: THE QUESTIONNAIRE FOR THE SCHOOL PRINCIPALS OF PUBLIC SECONDARY SCHOOLS IN KAKAMEGA SOUTH SUB-COUNTY

Instructions

The purpose of this questionnaire is to collect information about the usefulness of the educational management training offered by the Kenya Education Management Institute(KEMI) to the principals of public secondary school with regard to the management of schools . Please note that your answers will be used for the purpose of this study ONLY. Therefore feel free and complete this questionnaire with a lot of honesty. Answer all the questions below by either filling in the blank spaces or by giving your personal opinions.

SECTION A: The KEMI training and Project Implementation in Public Secondary Schools in Kakamega South Sub-County

PART I : Personal information.

1. What is your highest level of education?.....
2. How old are your?
3. For how long have you served in the capacity of a principal of a high school ?-
.....
4. To which school category does the secondary school that you head belong
to ?
.....

PART II : Implementation of secondary school projects

NB: Complete the table below, and use some of the information provided to answer some of the subsequent questions.

YEAR	Name of the project	Expected scope of work to be covered	The Actual scope of work covered	Project Completion Rates (%)
2015				
2016				
2017				
2018				
2019				
2020				

5. For each of the project(s) that were not completed as scheduled, state the reasons that could have been responsible for the delay .

.....

6. Have you ever attended the educational management training offered by KEMI ?

Yes

☐

No

☐

7. If your answer to the above question is YES, please indicate by ticking the appropriate box if the skills that you acquired from the KEMI training did assist you in any way with regard to managing and implementing projects in your school ?

Yes

☐

No

☐

8. If the answer to question THREE is YES, please specify how useful the training has been to you with regard to the implementation of projects in your school.

.....

.....

SECTION B: The level of debt repayment in school

NB: Fill in the table below the total value of school purchases against the total amount paid and the outstanding fees balance from 2015 to 2020.

Year	Total value (KES) of the goods/services purchased by the school	Total amount of money (KES) paid.	Outstanding Balance (KES)	Debt Repayment Rate (%)
2015				
2016				
2017				
2018				
2019				
2020				

9. Did the knowledge that you acquired from the KEMI training assist you in any way with regard managing and debt servicing of the school?

Yes ☐

No ☐

10. If the answer is YES, specify how useful it has been to you.

.....

.....

APPENDIX II: THE QUESTIONNAIRE FOR THE BURSAR/ACCOUNTS CLERK OF PUBLIC SECONDARY SCHOOLS IN KAKAMEGA SOUTH SUB-COUNTY

Instructions

The purpose of this questionnaire is to collect information about the principals of public secondary school in Kakamega South Sub-County, with regard to their compliance to the accounting procedures approved by the ministry of education . Please note that, your answers will be used for the purpose of this study only. Therefore feel free and complete this questionnaire with a lot of honesty. Answer all the questions below by either filling in the blank spaces or by giving your personal opinions.

SECTION A: LEVELS OF ACCOUNTING PROCEDURES IN SCHOOLS

1. The table below shows the school principal's assigned roles in the management of school funds. Tick accordingly, what in your opinion applies to your school.

Items	Responses	
	YES	NO
Does your school maintain a cash book?		
Are the cash books checked and reviewed?		
Are the receipt books recorded in the counterfoil register?		
Are the expenditure support documents numbered and filed?		
Does the school submit monthly trial balance to the DEO and auditor's office?		
Does the school prepare monthly bank reconciliation?		
Does your school prepare annual budget?		
Does the BOM approve annual budget?		
Does the school submit books accounts for audit to the auditor?		

Are your books audited timely?		
--------------------------------	--	--

2. On a scale of 1 to 5, rate the skills and competences of your school principal in the following areas of financial management.

Rating Attribute	1	2	3	4	5
Skills & Competences					
Budgeting					
Internal finance control mechanisms					
Auditing of books of accounts					
Management of creditors					
Record keeping					

Key:

1- Very poor

2- Poor

3- Good

4- Very Good

5- Excellent

Please rate the overall performance of the principal of your school on a scale of 1 to 5, with regard to his/her compliance to the accounting procedures approved by the ministry of education, for the period 2015 to 2020 .

RatingYear	1	2	3	4	5
2015					
2016					
2017					
2018					
2019					
2020					

Key: 1 Very poor 2 Poor 3 Good 4 Very Good 5 Excellent

**APPENDIX III: AN INTERVIEW SCHEDULE FOR THE COUNTY DIRECTOR
OF EDUCATION**

1. List down the types of financial malpractices committed by principals public secondary schools.
2. Give the total number of principals involved in each of the malpractices mentioned.
3. What types of financial disciplinary actions have been taken against principals implicated in financial malpractices?
4. Could you please state the total number of principals for each disciplinary action
5. Are there principals in this sub-county who have been disciplined because of poor project and debt management?
6. In your own opinion has the KEMI training programme assisted principals?
7. How do you compare the number of disciplinary cases against the principals before and after the training? (In the sub-county).

**APPENDIX IV: CRITICAL DATA ON PUBLIC SECONDARY SCHOOLS IN
KAKAMEGA SOUTH SUB COUNTY**

Year : 2015

S/N	Name of School	School Category	Project Completion Rates	Debt Completion Rates	Compliance to Accounting Procedures
1	S1	Extra County	70	75	Very good
2	S2	Extra County	65	70	Good
3	S3	Extra County	65	80	Good
4	S4.	County	50	65	Good
5	S5	County	50	65	Good
6	S6	County	50	60	Poor
7	S7	Sub-County	55	55	Poor
8	S8	Sub-County	50	55	Poor
9	S9.	Sub-County	50	55	Poor
10	S10	Sub-County	45	50	Poor
11	S11	Sub-County	45	50	Poor
12	S12	Sub-County	50	65	Good
13	S13	Sub-County	50	60	Good
14	S14	Sub-County	55	55	Poor
15	S15	Sub-County	45	55	Poor
16	S16	Sub-County	45	45	Good
17	S17	Sub-County	45	55	Good
18	S18	Sub-County	45	55	Poor
19	S19	Sub-County	55	55	Very Good
20	S20	Sub-County	50	58	Good
21	S21	Sub-County	60	65	Poor
22	S22	Sub-County	55	60	Very Poor
23	S23	Sub-County	60	65	Very Poor
24	S24	Sub-County	50	55	Good
25	S25	Sub-County	60	60	Good
26	S26	Sub-County	45	50	Good
27	S27	Sub-County	60	65	Poor
28	S28	Sub-County	50	55	Poor
29	S29	Sub-County	65	65	Very Good

Year: 2016

S/N	Name of School	School Category	Project Completion Rate	Debt Completion Rate	Compliance to Accounting Procedures
1	S1	Extra County	75	80	Very Good
2	S2	Extra County	60	75	Very Good
3	S3	Extra County	65	85	Good
4	S4.	County	55	70	Good
5	S5	County	55	70	Good
6	S6	County	55	65	Good
7	S7	Sub-County	60	60	Good
8	S8	Sub-County	55	60	Poor
9	S9.	Sub-County	50	60	Poor
10	S10	Sub-County	50	55	Poor
11	S11	Sub-County	55	55	Good
12	S12	Sub-County	55	70	Good
13	S13	Sub-County	60	65	Good
14	S14	Sub-County	60	60	Poor
15	S15	Sub-County	55	60	Good
16	S16	Sub-County	50	50	Good
17	S17	Sub-County	55	60	Good
18	S18	Sub-County	50	60	Poor
19	S19	Sub-County	55	60	Very Good
20	S20	Sub-County	55	65	Good
21	S21	Sub-County	65	70	Poor
22	S22	Sub-County	60	65	Poor
23	S23	Sub-County	65	65	Poor
24	S24	Sub-County	55	60	Good
25	S25	Sub-County	65	55	Very Good
26	S26	Sub-County	50	60	Very Good
27	S27	Sub-County	65	60	Very Good
28	S28	Sub-County	55	60	Good
29	S29	Sub-County	65	70	Poor

Year:2017

S/N	Name of School	School Category	Project Completion Rate	Debt Completion Rate	Compliance to Accounting Procedures
1	S1	Extra County	80	85	Very Good
2	S2	Extra County	65	75	Very Goot
3	S3	Extra County	70	85	Good
4	S4.	County	60	75	Good
5	S5	County	60	65	Good
6	S6	County	60	70	Good
7	S7	Sub-County	65	70	Good
8	S8	Sub-County	60	65	Good
9	S9.	Sub-County	55	65	Good
10	S10	Sub-County	55	65	Good
11	S11	Sub-County	60	60	Good
12	S12	Sub-County	60	75	Very Good
13	S13	Sub-County	65	65	Very Good
14	S14	Sub-County	65	70	Good
15	S15	Sub-County	60	70	Good
16	S16	Sub-County	55	65	Very Good
17	S17	Sub-County	60	65	Very Good
18	S18	Sub-County	50	60	Good
19	S19	Sub-County	60	65	Very Good
20	S20	Sub-County	60	65	Ver Good
21	S21	Sub-County	70	75	Good
22	S22	Sub-County	65	70	Good
23	S23	Sub-County	70	75	Good
24	S24	Sub-County	60	65	Very Good
25	S25	Sub-County	70	75	Very Good
26	S26	Sub-County	55	65	Very Good
27	S27	Sub-County	70	75	Very Good
28	S28	Sub-County	60	65	Good
29	S29	Sub-County	70	75	Good

Year: 2018

S/N	Name of School	School Category	Project Completion Rate	Debt Completion Rate	Compliance to Accounting Procedures
1	S1	Extra County	80	85	Excellent
2	S2	Extra County	70	80	Excellent
3	S3	Extra County	75	85	Very Good
4	S4.	County	65	80	Very Good
5	S5	County	65	70	Very Good
6	S6	County	65	75	Very Good
7	S7	Sub-County	70	75	Very Good
8	S8	Sub-County	70	70	Very Good
9	S9.	Sub-County	65	70	Very Good
10	S10	Sub-County	60	70	Very Good
11	S11	Sub-County	65	65	Very Good
12	S12	Sub-County	70	75	Very Good
13	S13	Sub-County	70	70	Very Good
14	S14	Sub-County	70	75	Good
15	S15	Sub-County	65	75	Very Good
16	S16	Sub-County	65	70	Very Good
17	S17	Sub-County	65	70	Excellent
18	S18	Sub-County	60	65	Very Good
19	S19	Sub-County	65	70	Very Good
20	S20	Sub-County	65	70	Very Good
21	S2	Sub-County	75	75	Good
22	S22	Sub-County	65	75	Good
23	S23	Sub-County	75	80	Good
24	S24	Sub-County	65	70	Very Good
25	S25	Sub-County	75	75	Very Good
26	S26	Sub-County	60	70	Very Good
27	S27	Sub-County	75	75	Very Good
28	S28	Sub-County	65	70	Very Good
29	S29	Sub-County	80	75	Very Good

Year: 2019

S/N	Name of School	School Category	Project Completion Rate	Debt Completion Rate	Compliance to Accounting Procedures
1	S1	Extra County	85	90	Excellent
2	S2	Extra County	75	85	Excellent
3	S3	Extra County	75	85	Excellent
4	S4.	County	70	85	Very Good
5	S5	County	70	75	Very Good
6	S6	County	70	80	Very Good
7	S7	Sub-County	75	80	Very Good
8	S8	Sub-County	75	75	Very Good
9	S9.	Sub-County	70	75	Very Good
10	S10	Sub-County	65	75	Very Good
11	S11	Sub-County	70	70	Excellent
12	S12	Sub-County	75	75	Excellent
13	S13	Sub-County	75	75	Excellent
14	S14	Sub-County	75	80	Very Good
15	S15	Sub-County	70	80	Very Good
16	S16	Sub-County	70	75	Very Good
17	S17	Sub-County	70	75	Excellent
18	S18	Sub-County	65	70	Very Good
19	S19	Sub-County	70	75	Very Good
20	S20	Sub-County	70	75	Very Good
21	S21	Sub-County	80	80	Very Good
22	S22	Sub-County	80	80	Very Good
23	S23	Sub-County	80	75	Very Good
24	S24	Sub-County	75	80	Very Good
25	S25	Sub-County	80	75	Very Good
26	S26	Sub-County	65	80	Very Good
27	S27	Sub-County	80	80	Very Good
28	S28	Sub-County	70	75	Very Good
29	S29	Sub-County	85	80	Very Good

Year: 2020

S/N	Name of School	School Category	Project Completion Rate	Debt Completion Rate	Compliance to Accounting Procedures
1	S1	Extra County	95	95	Excellent
2	S2	Extra County	80	90	Excellent
3	S3	Extra County	80	90	Excellent
4	S4.	County	75	90	Excellent
5	S5	County	85	85	Excellent
6	S6	County	85	90	Very Good
7	S7	Sub-County	80	85	Very Good
8	S8	Sub-County	85	80	Very Good
9	S9.	Sub-County	80	85	Very Good
10	S10	Sub-County	75	80	Excellent
11	S11	Sub-County	80	75	Excellent
12	S12	Sub-County	85	80	Excellent
13	S13	Sub-County	85	85	Excellent
14	S14	Sub-County	85	85	Very Good
15	S15	Sub-County	75	85	Very Good
16	S16	Sub-County	75	80	Very Good
17	S17	Sub-County	75	80	Excellent
18	S18	Sub-County	80	80	Excellent
19	S19	Sub-County	85	85	Excellent
20	S20	Sub-County	85	85	Very Good
21	S21	Sub-County	90	85	Very Good
22	S22	Sub-County	85	90	Very Good
23	S23	Sub-County	90	80	Very Good
24	S24	Sub-County	80	85	Very Good
25	S25	Sub-County	85	80	Very Good
26	S26	Sub-County	75	85	Very Good
27	S27	Sub-County	85	85	Excellent
28	S28	Sub-County	80	85	Very Good
29	S29	Sub-County	95	85	Very Good

APPENDIX V: LETTER OF APPROVAL FOR PROPOSAL



MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY
(MMUST)

Tel: 0702597360/61
: 0733120020/22
E-mail: deansgs@mmust.ac.ke
Website: www.mmust.ac.ke

P.O Box 190
50100 Kakamega
KENYA

Directorate of Postgraduate Studies

Ref: MMU/COR: 509079

17th January, 2018

Omondi Humphrey Rapando
EPM/G/16/10
P.O. Box 190-50100
KAKAMEGA

Dear Mr. Rapando ,

RE: APPROVAL OF PROPOSAL

I am pleased to inform you that the Directorate of Postgraduate Studies has considered and approved your Masters proposal entitled: *"Assessment of The Educational Management Training on Financial Management Skills of Principals in Public Secondary Schools in Kakamega South Sub-County"* and appointed the following as supervisors:

1. Prof. Stephen Odebero - Turkana University College
2. Mr. Herman J. Wachiye - Department of Educational Planning and Management –MMUST

You are required to submit through your supervisor(s) progress reports every three months to the Director of Postgraduate Studies. Such reports should be copied to the following: Chairman, School of Education, & Technology Graduate Studies Committee and Chairman, Department of Educational Planning and Management. Kindly adhere to research ethics consideration in conducting research.

It is the policy and regulations of the University that you observe a deadline of three years from the date of registration to complete your Masters thesis. Do not hesitate to consult this office in case of any problem encountered in the course of your work.

We wish you the best in your research and hope the study will make original contribution to knowledge.

Yours Sincerely,

A blue ink signature of Prof. John Obiri is written over a rectangular stamp. The stamp contains the text: "DEAN SCHOOL OF POSTGRADUATE STUDIES MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY".
Prof. John Obiri
DIRECTOR DIRECTORATE OF POSTGRADUATE STUDIES

APPENDIX VI: RESEARCH AUTHORIZATION BY NACOSTI



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: 020 400 7000,
0713 788787, 0735404245
Fax: +254-20-318245, 318249
Email: dg@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref. No. **NACOSTI/P/18/29337/21586**

Date: **2nd March, 2018**

Humphrey Omondi Rapando
Masinde Muliro University
of Science and Technology
P. O Box 190-50100
KAKAMEGA.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on *“Assessment of the educational management training on financial management skills of principals in public secondary schools in Kakamega South Sub County”* I am pleased to inform you that you have been authorized to undertake research in **Kakamega County** for the period ending **2nd March, 2019**.

You are advised to report to **the County Commissioner and the County Director of Education, Kakamega County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.


GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Kakamega County.

The County Director of Education
Vihiga County.

APPENDIX VII: RESEARCH PERMIT BY NACOSTI

THIS IS TO CERTIFY THAT:
MR. HUMPHREY OMONDI RAPANDO
of MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY, 2486-50100
KAKAMEGA, has been permitted to
conduct research in Kakamega County

Permit No : NACOSTI/P/18/29337/21586
Date Of Issue : 2nd March, 2018
Fee Received : Ksh 1000

on the topic: ASSESSMENT OF THE
EDUCATIONAL MANAGEMENT TRAINING
ON FINANCIAL MANAGEMENT SKILLS OF
PRINCIPALS IN PUBLIC SECONDARY
SCHOOLS IN KAKAMEGA SOUTH SUB-
COUNTY.

for the period ending:
2nd March, 2019


.....
Applicant's
Signature




.....
Director General
National Commission for Science,
Technology & Innovation

CONDITIONS

1. The License is valid for the proposed research, research site specified period.
2. Both the Licence and any rights thereunder are non-transferable.
3. Upon request of the Commission, the Licensee shall submit a progress report.
4. The Licensee shall report to the County Director of Education and County Governor in the area of research before commencement of the research.
5. Excavation, filming and collection of specimens are subject to further permissions from relevant Government agencies.
6. This Licence does not give authority to transfer research materials.
7. The Licensee shall submit two (2) hard copies and upload a soft copy of their final report.
8. The Commission reserves the right to modify the conditions of this Licence including its cancellation without prior notice.



REPUBLIC OF KENYA



National Commission for Science,
Technology and Innovation

RESEARCH CLEARANCE
PERMIT

Serial No.A 17763

CONDITIONS: see back page