INFLUENCE OF MANAGEMENT TEAMS' SKILLS ON COMPLETION OF CONSTITUENCY DEVELOPMENT FUND (CDF) PROJECTS IN PUBLIC SECONDARY SCHOOLS IN KIHARU CONSTITUECY, MURANG'A COUNTY, KENYA

BY

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A Research Project Report Submitted in Partial Fulfillment of the Requirement for the Award of the Degree of Master of Arts in Project Planning and Management of the University of Nairobi

2019

DECLARATION

This research project is my original work and has not been presented for any award in any other University.

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DEDICATION

I dedicate this research project to my Husband Geoffrey Kinguru Wachira, my daughter Saconta Wambui and my Son Brian Wachira who helped me greatly as I completed it.

ACKNOWLEDGEMENT

I cannot be able to fully express my gratitude towards to those who supported me throughout the study. Firstly, I acknowledge the School of open Distance and E-learning; UoN for the support and training I acquired over the learning process; the skills are of great help to me. I would like to recognize my supervisors, Dr. Chandi Rugendo and Mr. David Njogu for their assistance towards accomplishment of this proposal. Finally, I wish to acknowledge Karimi Njeru, Nelson Njeru, Daisy Wawira and the Masters of Arts in Project Planning and Management Embu Learning Centre students specifically my group members for the unique cooperation, support and encouragement that I received from them

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ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
BOM	Board of Management
CDF	Constituency Development Fund
CEMT	County Education Management Teams
GOG	Government of Ghana
GOJ	Government of Japan
GOK	Government of Kenya
M&E	Monitoring and evaluation
MOE	Ministry of Education
NACOSTI	National Commission for Science, Technology and Innovation
PA	Parent Association
RCDF	Rural Constituency Development Fund
SDG	Sustainable Development Goals
SFDF	Social Fund and Development Fund
SMT	Senior Management Team
TSC	Teachers Service Commission
UNDP	United Nations Development Programme

ABSTRACT

The study evaluated the influence of management teams' skills on completion of CDF infrastructural development projects in Kiharu-based public secondary schools. The study had three objectives that sought to establish how school management team's skills, technical expertise skills and monitoring and evaluation skills influenced completion of school infrastructural development projects in Kiharu-based secondary schools. The study is significant in finding the factors that hinder completion of projects and would be important in identifying the issues that affect the successful implementation of CDF funded projects with Kiharu Constituency. A descriptive research survey design was utilized to conduct the study. The study purposefully selected all the 25 principals, 50 members of the BOM and a CDF chairperson hence the sample size used was 76. The researcher relied on self-administered questionnaire and interview schedule. Means, standard deviations and Pearson's correlation coefficient were used to analyses the data. The study established that school management teams managing the public secondary schools in Kiharu Constituency lack strong project managerial competence, many of school infrastructure development projects fail to complete due to lack of technical expertise by the institution management teams and that they lack Monitoring and Evaluation skills which impeded timely completion of school infrastructure development projects. The study concludes that between school management team's project management skills, management team's technical expert skills and M&E skills have considerable impact on project completion of the Kiharu-based infrastructural projects implemented within secondary schools. Based on this, the study recommends that the CDF office should ensure that the school management teams are trained on managerial skills since it was seen to have influence onthe completion of institution infrastructure development projects, secondary school principals should be trained on project management skills, financial accounting and auditing to boost their technical competence and that Ministry of Education should train institution principals and the BOM on technical expertise skills.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

In the global arena, sustainable development is a desirable aspect among all people who implement development projects, yet this noble yearning is hardly attained as many projects scattered all over the world are faced with numerous challenges, Androlly (2009). The focus on implementation of school projects in southern Wales in England, Wood (2010) reported from the study that projects which were geared towards improving teaching and learning process became successful due to prudent management of the process, through school head participation in all aspects of the project undertaking and effective control of the funds.

Mahoney (1998) states that schools in USA have a centralized management system where Federal government distributes funds to public schools through state governments; County Education Management Team (CEMT) then manages those schools. The two U.S funded School Management groups led to reorganization of schools funds management in the same way as in Kenya. Nonetheless, the US system is managed professionally than the Kenyan one (Kimenyi, 2015).

In Russia, such projects are planned, implemented and designed in line with trends they display so that completion rates can be enhanced (Chikati 2012). Normally, the log frame matrix is adopted in Russian strategy to monitor, evaluate, manage, design and appraise projects that need to be funded by government. This method helps in adoption of activities that are objective in nature and that corresponds to existing conditions (Chikati 2012). Most of schools in Russia are thereby able to address inherent challenges, risks and constraints implying that they complete effectively (Field & Ketter, 2013).

In Africa, though, despite the considerable input that comes from different sources most of school projects do not meet expectations (Lumiti, 2015). The unfortunate thing is that most of those projects do not address themselves to students' needs and priorities. In

other instances, they do not meet the expectation of various stakeholders because they run out of budget and time and even do not achieve desired goals (Kikwasi, 2012). Most of these projects are influenced by factors that are either external or internal. Some of those factors include inept project management, failure to include stakeholders in formulating those projects, poor designs, inadequate links between various parties and failure to turn some of attention to external factors possible of influencing project implementation (Assudani, & Kloppenborg, 2014). In the light of his, it has been established that school projects might be successful if these issues would be addressed adequately within socio-economic context (Batten, 2011).

According to Musera et al (2012), the head of the secondary school is appointed through the through TSC and Ministry of Education (MOE). The school administrators are school-level accounting officers and are directly accountable to education boards at sub-county level, Board of Management of the school (BOM) and Parent Association (PA) on issues related to school assets (Chepkirui & Gladys, 2016). Accordingly, school administrators might be regarded as project managers for school assets meaning that they prepare, execute, administer, sustain and assess the education systems under them. This includes the physical infrastructure, human resource, curriculum, students and financial inputs. School heads may thereby be regarded as responsible for developments carried out in schools. This means that effective implementation of those projects would be influenced largely bys school principals (Chesiyna & Wanyoike, 2016).

High School ventures in Kenya create an impression that nothing can go on in the absence of financial resources. In the light of this, Awiti (2018) observes that in some instances certain groups of stakeholders do not meet because they do not have money to cater for meetings. Because of this, most of projects in public schools tend to stagnate because people do not take ownership of those projects including those responsible for organizing development committee meetings. This challenge could be addressed by making sure that projects developed at school level would be sustainable. Accordingly, secondary schools should select development projects carefully without overstepping ther mandates and responsibilities (Juma, 2015).

The CDT was created by the CDF 2003 Act as a publicly funded kitty for promoting developing agendas at constituency level (Juliah, 2016). As a result of devolved system of government, it has thereby become part of devolved systems of development in the country with a view to promote development throughout the country. The CDF Act requires the national government to set aside about 2.5 percent of its national income to CDF related projects in the country every year. About 46.1 percent of this money goes to education sector in every constituency (Kamau, 2015). The constituency development funds are released to school projects at the locational, divisional and district level in the constituency based on work plans and bill of quantities (BQ) as prepared by board of managements and school management committees according to poverty level (GOK, 2003).

The CDF mainly focuses its attention on ensuring that a substantial amount of national fund is geared towards promoting development at constituency level by fighting poverty (Republic of Kenya, 2003). This initiative is well developed in other countries under different names like Social Fund and Development Fund (SFDF) (GOK, 2003, Kimathi, 2017). The CDF funds aim to release financial resources to the poor people without holding it centrally through bureaucratic means. Once released, the members of the public are supposed to propose projects they deem relevant to them so that they can be funded to promote economic development among them. The Ghanaian Slum Development Funds has similar projects that our constituencies can rely upon to select their high priority projects (GOG, 2007). Similarly, the Japan Social Development Fund for Poverty reduction (GOJ, 2007), Indian one (Frontline, February 2007) and Solomon Islands under Rural Constituency Development Fund (RCDF) are good examples of such fund (Kimenyi, 2005).

Successful completion of CDF funded school projects is undoubtedly a major perquisite in the realization of our country's educational objectives and consequent realization of Sustainable Development Goals (SDGs). The Kenya Vision 2030 spells out a llong-term development blueprint for the country. Among the pillars of this vision is the social pillar, which includes transformation of education and training of the key social sectors. The basic education infrastructure sponsored by the CDF initiative, falls under this

category. In Kiharu constituency, there are so many stalled and incomplete projects in many of the public secondary schools. According to Vision 2030, secondary school principals are part of the stakeholders responsible for ensuring such projects come to completion successfully. However, the huge number of stalled and incomplete projects in public secondary schools within Kiharu constituency raises question on the skills of the schools' management team to see development projects are completed. A study conducted by Mulai (2014) on the role of principals of secondary schools in Kasikeu division, Nzaui District in Makueni County determined that the Principal had a passive role in the management of school projects hence delaying the completion of such projects. This revealed that there has been lack of full commitment in the participation of secondary school stakeholders, which had an impact in the prioritization of needs (the priority projects), ownership of the projects completion and continued sustainability of public secondary schools.

Successful completion of school infrastructure projects requires the involvement and involvement of all educational stakeholders. The principal helps identify the strategies they want to use to enhance educational quality. The participation of other people is a vital element in developmental, educational, and inclusive and as well as a means for protecting freedom. A basic assumption is that members of the principals have the required techniques in project management and hence are able to complete the said projects in good time (Kenya Government, 2016). Most of projects in the country under devolved system of governance fail or take longer to complete because they incorporate various factors including those external to counties (Kagiri & Wainaina, 2013). Normally, most of CDF projects should be geared towards improving infrastructures within public schools. Nevertheless, most of those projects have deviated from this. To make the matter worse, the few implemented take longer to complete prompting the need for on to why such delays have been experienced.

1.2 Statement of the problem

In Kiharu constituency, there have been a number of projects in schools which have not been completed in good time. For instance among the 10 schools that commenced their

projects before 2015 in Kiharu constituency, the projects have not been completed as per the schedule. For example, in the 2014/15 financial year, out of 6 CDF funded projects, four were completed. In the financial year 2015/16, out of 6 CDF funded projects two were completed. In the financial year 2017/18, out of 13 CDF funded infrastructure projects, out of 13 CDF funded infrastructure projects 11 are yet to be completed as scheduled (Appendix V). There are a number of factors that may results to delayed completion of school projects. The researcher therefore sought to identify the way management teams' skills influence the completion of those projects within Kiharu Constituency.

1.3 Purpose of the study

The study evaluated the influence of management teams' skills on completion of CDF infrastructural projects within public high schools in Kiharu Constituency.

1.4 Research Objectives

Its specific objectives included;

i. Establishing the influence of management team's skills on completion of CDF funded projects within Kiharu Constituency among the secondary school projects
ii. Establishing the influence of management team's technical expert skills on completion of those projects
iii. Establishing the influence of management team's M&E skills on completion of those projects

1.5 Research Questions

The study answered the following questions

i. How do management team's managerial skills influence the completion of school infrastructural projects within Kiharu-based secondary schools?
ii. How do management team's technical expert skills influence the completion of school infrastructural projects within Kiharu-based secondary schools?

iii. How do management team's M&E skills influence the completion of school infrastructural projects within Kiharu-based secondary schools?

1.6 Significance of the Study

Projects are undertaken to fulfill predetermined objectives. If the projects are not completed, then the objectives shall not have been met and resources shall have been wasted. Therefore, the current study evaluates factors that impede the completion of CDF funded projects in Kiharu Constituency. The study's findings would be important to different numbers of people and institutions in a number of ways. The management team of secondary may find the study findings important in establishing the extent to which school development projects are managed.

In establishing the needs that affect the success of the school development projects, the findings would be important to the school management team. The results may be important to the Ministry of Education, which may have programmes for sensitizing the school principals on the importance of having properly implemented school infrastructural development projects in their schools. The study's findings will be critical in enabling policy makers at government and education level to make informed decisions on issues related to project implementation. This will be critical in enabling BOMs to develop substantial influence on project management in schools. Besides, the findings contribute to existing body of literature in project planning and management; hence, serves as a reference material for researchers. More important, they are of great help in the processes of acquiring visionary leaders who can enhance the state of school development projects, which may benefit the students.

1.7 Limitations of the Study

The researcher anticipated difficulty of respondents, namely the principals, BOM and PA chairpersons and the CDF chairperson because of the busy schedule. Nonetheless, this was mitigated by early scheduling of appointment with the respondents and changing the time needed for collecting data to make sure that respondents had sufficient time to answer questions. It was also anticipated that some respondents may conceal information

which they consider personal. The researcher overcame this by assuring them the data they would provide would not be disclosed to anyone and that they be used in this study's only. As a result, they were not asked to provide their names on questionnaires.

1.8 Delimitations of the Study

The study delimited itself by specifically concentrating on establishing how management teams' skills influenced completion of school infrastructural projects within Kiharu Constituency. It was conducted in public high schools in Kiharu Constituency in Murang'a County and was restricted to the schools that had CDF funded infrastructural projects. The focus was narrowed to school principals, BOM chairperson, Parents Association chairperson and the chairperson of the CDF.

1.9 Assumptions of the study

The researcher presumed that CDF projects had received the total allocation of funds and that they were deemed to be completed in time. It was also assumed that the schools management team had the necessary skills in project management. The study assumed that the sample of the 25 principals, 50 BOM and PA chairpersons was representative of the population in the constituency. It was also assumed that the instruments for data collection were valid and reliable. It was also assumed that questionnaire was valid and reliable and that respondents responded to research questions honestly. The researcher also believed that there were no external factors influencing data collection and accomplishment of the project.

1.10 Definition of Terms Used In the Study

Constituency: refers to an area in which person selected are representative in parliament or a government.

Managerial skills refers to the ability of those in management teams to identify needs, plans what needs to be done, and standards that need to be observed in the implementation of a project. this includes ability to motivate, coordinate and monitor people as they execute their duties Martin Barnes (2012).

Management Team Skills this refers to those factors that are specific to the management team and that impact directly on how they manage school projects.

Project Completion refers to projects completed in the right time and is of the desired quality. It is the final step in a project cycle that determines whether money needs to be reimbursed or more need to be paid out.

Project Planning refers to a reasonable interpretation of how much a plan should be started, maintained and completed. This prescribes the course followed in carrying out the works of school infrastructure.

School Managers refers to school heads and BOM that are responsible for making decisions that relate to schools under their control.

Secondary School refers educational institutions where youngsters receive the second major stage of formal education. Education beyond the primary school; provided by secondary school.

1.11 Organisation of the Study

The study has five chapters. The first one provides the study background in terms of study's purpose, problem, objectives, research questions and hypotheses, limitations, assumptions, delimitations, and definitions of significant terms. The second one provides the literature review in the light of study's objectives. It also provides the conceptual and theoretical frameworks for the study before summarizing the main findings from the chapter. The third one provides the methodology followed to conduct the study. The fourth one presents the findings in the light of study's objectives whereas the fifth one concludes the study by summarizing the findings and recommending the way forward.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the previous studies with a special attention to those that relate to influence of education level on project completion, influence of project management skills on project completion, influence of technical expert and completion of development projects and lastly on the influence of M&E skills and completion of development projects and the concept of project completion. Besides, it provides the conceptual and theoretical frameworks.

2.2 Theoretical Background of the study

This study uses the theory of change as background, to attempt to explain how the skills of school management team influence completion of projects. The theory of change helps stakeholders to determine whether projects effective, as well as the methods it uses to be effective. Proponents of this theory argue that it is a collective set of assumptions that give an explanation to all the steps, both minor and major, that lead to the achievement of the long term goal of a program. In the application of the theory of change, it is crucial for all stakeholders to understand both short term and long-term outcomes of the program. The long-term goal should be realistically achievable, and easily understandable by all stakeholders involved. The theory of change is also an invaluable method of conducting M&E for different projects. M&E process that helps in achievement of results while improving the performance of a programme, with a goal of improving management of outputs, outcomes and input. Using theory-based evaluation questions helps a project manager to focus the evaluation on key concerns affecting the project. Additionally, M&E can be used in helping to pick the right indicators for the success and effectiveness of a project.

2.3 Project management skills and completion of development projects

Processes in project management are two and they relate to phases of initiating, scheduling, implementing, control and termination (Apida, Eric, & Graca, 2017). The process of managing school is slightly complex; as such, it requires dedicated and innovative leadership (Bush, 2013). Normally, school principals are in charge of managing school assets including development projects (Kelechukwu, 2011). As such, on behalf of education ministry, principal serves as a project manager. From this perspective, principals are supposed to prepare, schedule, manage and implement school systems in terms of managing resources ad determining with the help of other stakeholders what needs to be done to improve the conditions of their respective schools (Muchoki, and Namusonge, 2015).

Good performance of school management activities requires adequate training of principals. Mwakio and Derrick (2015) observe that little effort has been put in determining what school principals need to do as managers of their respective schools. This might be some of the reasons majority of schools in the country have failed to execute projects effectively including projects that have stalled whereas others re in bad shape. In this respect, it might not be possible to determine the effectiveness of project performance in most of schools in the country. According to Mwakio and Derrick (2015), this is because schools have different resources.

Competent professional teams are teams able to execute their mandates effectively (Kumar & Prasad, 2013). As a result, competence within a profession might be regarded as ability to meet objectives in terms of job performance (Ireland, 2014). Competence can be understood from three different perspectives namely attitude, skills and knowledge. Knowledge comprises of the specific and general information relating to project management theory, methodologies, processes and practices that are applied to industries and complex projects (Oyalo & Bwisa, 2015).

Skills relate to the manner in which knowledge is applied in different contexts to make sure that work is done effectively (Ireland, 2004). Management teams require conceptual, human and technical skills. The technical ones relate to knowledge required in the

performance of specific jobs (Gray and Larson, 2018). Most of these skills are critical to managers because they manage employees who use techniques and tools to implement their duties. Human skills relate to the way people work effectively with each other either at a personal or group level (Robbins & Coulter, 2012). These skills help managers to get the best out of the people they manage.

Normally, human skills are depicted in the way mangers relate with other people including the way they lead, coordinate, communicate, resolve conflicts, facilitate and even motivate other people (Daft, 2012). The conceptual skills relate to the way managers conceptualize and think about abstract issues especially in complex situations. With the help of these skills, mangers are able to visualize organizations as a whole so that they can understand links among various sub-units and the way organizations fit within broader environments.

Attitude, which form the third part of competencies, are largely professional and personal demeanors that people exhibit as they perform their duties (Ireland, 2014). They include the good instincts, dedication, energy, and self-drive. Within competence environment, they include the positive outlooks and abilities to care for one another. As a result, managers should have the right attitudes as they work with other stakeholders (Ireland, 2014). Several studies have therefore, identified management and leadership related factors to cause delays in completion of school projects. Gamage and Zooksomchutra (2014) identify late issuance of instruction, poor supervision and incomplete drawings as some of the factors that delay projects within public learning institution. Kumar and Prasard, (2013) identify inadequate site supervision by school managers as a factor that delay project completion within school infrastructure development projects.

Pongpeng and Liston, (2013) identify delays in project approving process in terms of project scope, late design review and lack of experience among school managers as the factors that delay project completion within school environment. In the United States, Arditi and Mochtar (2010) identify poor site inspection and delays in developing project designs as the main factors that delay school projects. These findings are also supported by findings by Assaf and Hejji (2016) who identify consultant related factors like delays

in approving design changes, poor communication, delayed inspections, rigidity among consultants, poor coordination, delays in approving and reviewing projects' designs, inadequate experience and conflicts among various parties as the factors that delay project completion. The authors further identify changes made to projects during implementation process, poor communication between consultants and projects owners and errors made in design as the other factors that delay projects.

Chan and Kumaraswamy (2013) identified lack of experience among project designers, discrepancies in design and delays in releasing information related to project designs as some of the factors that delay project completion in school projects. Cooke-Davis, (2012) identified design errors, changes that occur in material types, and changes made to projects' design as some of the factors that delayed project completion. Similarly, Cooke-Davis, (2012) explains that inspections that are conducted frequently on projects, conflicts among various parties in projects and poor coordination among those parties as some of the other factors that delay project completion. Iyer and Jha (2013) identify issues related to project formulation right from the start and delays in making decisions on time as some of the factors that delay projects from completing on time.

Kumaraswamy et al. (2013) identify issues related to ground conditions that cannot be predicted beforehand in the right way, variations in work and delays in designing projects as some of the factors that delay project completion. Harris and Macaffer, (2014) evaluated the causative factors from a technical perspective and identified issues related to estimation error, failure of new technologies and design failures as some of the factors that delayed project completion. These findings are supported by Lock (2007) who also identified issues related to discrepancies within contract documents, frequent inspections, mistakes and poor contract management as some of the factors that delay project completion (Yong, Nur Emma Mustaffa, 2012).

Kimando (2011) found out that principals were instrumental in monitoring and budgeting for school expenses related to project development. Ikiugu (2006) carried out a study in Meru Central District on BOM competence in school development projects. The study found out that 43.3% of the principals reported that they were adequately prepared to

handle financial management regarding school infrastructure development projects, while majority 56.7% indicated that they were incapable, mainly because they were not trained in financial management and low levels of education. Kiprono, Kemei and Rotich (2015) carried out a study on the factors that determined whether CDF funded projects in the country were completed on time within Ainamoi constituency. The study revealed that project factors were some of the factors that affected the completion of the projects.

2.4 Technical expert and completion of development projects

Most of the projects fail despite the many methods in place that can help them to succeed successfully. One of the main factors that have resulted to this is lack of leadership competence among those tasked with implementing projects. In spite of this, previous studies have failed to identify leadership as a competence factor that influence projects' outcomes (Al-Momani, 2010). Normally, the success of project implementation is partly an outcome of effective management of various constraints that include management of performance expectations, costs and time. To achieve this, project managers need to be effective leaders and have the right competence skills. Servant leadership model has been identified as one of the most effective models in overcoming challenges experienced by organizational leaders (Kruger, 2015).

Technical expertise is instrumental in capacity building because it facilitates interaction and project management. Project management training ought to start by understanding project theories and making sure that teams comprehend links between those theories and result frameworks together with indicators associated with them (Rossi, Lipsey, and Freeman, 2014). Skills are of significant importance to a monitoring and evaluation practice that is effective; the staff needs trained on the basics of evaluation (Rossi et al 2014).

In the context of project implementation, it is necessary to have devoted and sufficient numbers of evaluation staff, it is critical for this project evaluators to have the correct technical skills. Professionally trained staff and a budget were a key requirement in Malawi when they were implementing the monitoring and evaluation system (Rossi, et al 2014). There is noted unbalanced utilization of monitoring and evaluation personnel

where they mainly assign tasks other than monitoring and evaluation. Time then becomes a challenge for them to manage the entire process completely and advocate widely for its use leading to ineffective monitoring and evaluation (Aden, 2015). Therefore, there should be balanced work distribution of duties to ensure that there is qualified staff set aside to hold accountable for the monitoring and evaluation system achievement of quality results. This will make them devoted and work towards achieving the expected priorities and goals.

Project and senior managers are essential drivers for the less technical skilled personnel. This kind of broad experience and orientation is critical in managing results and dealing with cultural diversity within organizations (Jennifer and McConville, 2016). There are actually no quick fixes in creating a system for monitoring and evaluation, huge investment in relevant training along with systems development in the long run. The implementers of the project get clear job deploying that matches their expertise, and further training if need be. For projects that comprises of members who go to the field to execute the various project activities without supervision, there should be constant and exhaustive support to them (Ramesh, 2012). Some of the larger features of developing skills along with capabilities in employees are the concrete organizational goals on employees to motivate them; the support by the organization along with improved expectations can result to self-directed actions for enhanced outcome (Pamela, Joe and Nay, 2013).

Despite the many researches that have been conducted so far, project mangers faces leadership related challenges. Some of those challenges relate to uncertainty, stress, leadership styles, teamwork and learning (Aibinu, and Jagboro, 2012). The success of projects depend on human factors like support from top management teams, and project leadership more than it depend on technical factors. The importance of human factors in projects increase as risks, innovation and complexity increase within projects (Aibinu, and Jagboro, 2012). One of the main tasks of those in leadership thereby is to provide projects with direction because leadership is correlated to projects' outcomes (Al-Tmeemy, 2018). Within project environment, management skills are not the only factors that determine project success. Practices within project management require managers to

be experienced and knowledgeable about leadership and management and the way they relate to each other to help projects succeed and complete on time (Aibinu, and Jagboro, 2012). Within business environment, there is a strong belief that managers help in making sure that duties and tasks are completed in the right way whereas leaders concern themselves with making employees follow them.

Frimpong, Oluwoye, Crawford (2013) suggest that when leadership concepts are integrated in the right way, they enable project managers to apply analytical and logical skills in executing projects. In addition, the authors suggest that project managers may be able to integrate leadership concepts if they would be sensitive thereby work with team members to identify work related needs and personal desires. The degree of influence that project managers have on projects is an important element in project management skills. Studies indicate that project management competencies are diverse and broad. Ahmed (2013) identify adaptability to change, conflict resolution, ability to manage corporate culture, responsibility, commitment, motivation, leadership, and ability to build relationships as some of vital elements in developing leadership skills.

A study done by Kwak (2015) indicates technical expertise is important in project management due to greater challenges in today's project. This is especially where technological tools are used in project management practices, this study helped to analyze fundamental connections between technical expertise and project management. Subsequently, understand the indulgent function of expertise to the project team in cultivating enhanced project performance. The findings to this study were that project teams equipped with the right technical skills linked to project performance (Kwak, 2015).

The study demonstration that it is difficult to disassociate the technical expert with project management and the absence of such relation induced project performance, being a technical expert in project management a project can play a main role in supporting project team in handling projects effectively and efficiently. A study by Sunindijo (2015) Faculty of Built Environment, Australia highlighted on Project manager multi-layered tasks that expressively influenced the project performance. Other studies had recognized

four skills to be critical to project managers, they include mental, human, stakeholders, and technical skills, along with their 16 other skill competencies.

The study determined whether project technical skills influenced project performance. The data was obtained from 107 project team members using a questionnaire assessment method. The study results showed that project team leads technical skills impact project performance. The excellence of project performance is impacted by several skill components, which include integrity, agreement details, quality management, interactive skills, interpersonal influence, visioning, intelligence, sensitivity and dynamic leadership. Project managers may use various attributes to develop human resources under their control.

Ahsan and Gunawan (2010) in his study stipulates realisation of independence when undertaken by people who are not under the control of those appointed for the strategy and implementation of project development intervention. This illustrate that training is an essential aspect geared towards affecting the implementation of M&E in development projects. Uitto (2010) emphasizes that human capital training needs is paramount for reliable project management, stipulating that staff working must have the necessary technical expertise with M&E for them to guarantee M&E results that are of high quality. Employing a monitoring and evaluation practice that is effective requires management to selectively appoint the right skills, enhance the capacities by further developing the skill on a regular basis. The training needs assessment should be accurate, monitored and executed diligently by teams responsible for managing projects. Project research skill in project management encourages the team to have base data for the human capital skill retention, development and enhancement (Nabris, 2012).

In school environment, principals should with other people act as teams to achieve organization's goals. They are expected to display competency, high level of managerial skills have gender balance in their composition among other qualities. In a national study conducted by Ombati (2013) on factors influencing timely completion of infrastructure projects in public secondary schools within Kitutu Masaba constituency, the study found that management skills among school managers influenced project completion. Timely

availability of funds also influences these projects. Conflicts between various stakeholders were found to be taking place and affecting timely completion of the projects. The further found that stakeholders are involved but how seriously they play their roles may be a factor that is influencing timely completion of these projects. The study therefore recommended that school managers and especially principals should undertake professional courses that are tailored to enable them acquire relevant skills for project management in schools. Stakeholders like the principal and PAs should be composed of individuals who have professional experience in construction work or have attended related courses.

A study by Harry (2013) on the social practices and knowledge management in projects, outline the importance of knowledge retention and dissemination. The study set out to outline the implication of social factors in facilitating knowledge management capacity in such an environment, derived from case study research precisely from construction industry. The key study finding, signify processes of knowledge capture, transfer along with learning in project formulation depend heavily on the social trends, practices and processes in manners, which depict the value and the importance of including community-based approach in knowledge dissemination. Human capitals, with notable experience are critical in the achievement of M&E results. There is need for a sound M&E human resource capital in areas related to quality and quantity thereby M&E strategies need to attain and maintain a stable M&E process (World Bank, 2011).

2.5 Monitoring and evaluation skills and completion of development projects

Project M&E increases overall project preparation, management and execution performance and thus numerous projects are initiated with solitary purpose of enhancing socio – political as well as economic status of the people. Monitoring is largely a long-term process that determines whether plans are observed and adhered to so that deviations from preferred results can be identified at an early stage (ADRA, 2017). The project information is obtained as the project is ongoing in an orderly and sequential manner.

Evaluation, on the other hand, concerns itself with assessing issues related to project. Its main focus is on issues related to project results, design, and execution. Accordingly, it provides timely assessment of projects' effectiveness, impact, sustainability of various interventions, projects' progress and projects' relevance among other issues. According to Ballard (2016), M&E helps those tasked with implementing projects in making informed decisions that relate to service delivery, utilization of objective evidence, program effectiveness and operations.

In Africa, though the concept of monitoring and evaluation is new and in many occasions has not been accepted fully as an integral part of the operations in organisational projects, a number of Organisations and companies have copied the idea (Crawford & Bryce, 2015). Ayarkwa, Ayirebi and Amoah (2010) conducted a study on the external elements influencing the success of M&E on projects in 15 tertiary colleges and 25 secondary schools in Libya that was examined by use of analysis of Variance (ANOVA) and the results showed that, factors like stakeholders involvement, support and perceptions of monitoring and evaluation had a great influence, sources of financial resources and the amounts allocated had an influence, the government policies and external conditions tied to donors, training and education for the employees and many more. Buertey, Adjei–Kumi and Amoah (2011) continue to show that financial resources can be used to give incentives to employees in Organisations so that they can internalize Monitoring and Evaluation, money can be used to hire qualified personnel for Monitoring and Evaluation, and money can hire quality monitoring and evaluation education for the projects handlers and many more.

Several scholars have focused on M&E as a factor that determines the implementation or success of projects. Jones et al (2011) for example, argues that, monitoring is an ongoing task that regularly collects data on defined indicators in public projects. M&E is defined as a process that helps project managers in improving the execution of projects and achievement of results.

However, studies by a number of scholars have realized that there is difficulty in M&E on projects in Kenya more specifically those funded by governments just like the school

infrastructure projects. For example, Ombati (2013) did a research on factors that influenced timely completion of infrastructure projects in public secondary schools in Kenya: a case of Kitutu Masaba constituency and found out that monitoring and evaluation was a challenge because it was perceived as a witch-hunt activity, it was never allocated resources and at the larger extent had no specific allocated times. These issues surrounding the integration of M&E in the implementation of projects in the country thus led to a number of studies ranging from small to mega projects.

Among the studies done by scholars aiming at M&E include: Ochieng and Tubey' work of (2013) that touched on issues that determined the effectiveness of M&E on CDF funded projects in Ainamoi Constituency, Onderi and Makori (2013) who did a research on high school principals within Nyamira County in the country with a special attention to issues and challenges facing their M&E strategies, and Wanjiku (2015) who focused on M&E factors that influenced the performance of road projects within Nyandarua County among others.

With regard to project failure, Kagiri and Wainaina (2013) evaluated the condition of construction projects within Nairobi and Kiambu counties. They observed that 40 percent of projects in the two counties failed to complete because of lack of expertise and poor technological knowhow. Within Nairobi County, 41 percent of road projects failed to complete on time because of the poor technical skills applied to projects.

M&E is a vital tool in enhancing the performance of project management so long as in the medium and short term management of complex projects would deviate its attention from financial resources to ensure that projects are productive, sustainable and last longer (Muhia, 2016). Monitoring behavior helps project managers as well as staffs in determining whether projects are within stipulated confines. Monitoring provides the basis for minimizing time lags and cost overruns while ensuring that quality standards are maintained through project implementation process. Evaluation on its part enable managers and project designers to evaluate the extent to which projects attain their objectives as outlined within project document (Crawford and Bryce, 2013).

Karl (2017) studied the performance projects in the light of M&E methods, activities scheduling, quality performance and fund management. He established that the link between these variables had influential impact on project success. Ika et al., (2012) evaluated the link between project performance and success factors using regression analysis. The factors included in the analysis included project design and coordination, institutional setting, training, and monitoring. The study evaluated the consistency practice and theory; design and monitoring are the most noticeable factor of project success for project supervisors. The authors established that M&E was a major factor in the success of projects (Ika et al, 2012).

Chin (2012) established a notable link between M&E and project performance. M&E in project performance became a vital element in project planning. On the same hand, the tracking of project progress was one of the methods of the project management strategy aimed at achieving its objectives (Chin, 2012). The UNDP (2011) evaluated the factors that determined project success with a view to establishing what needed to be improved to enhance project performance. The study focused its attention on M&E practices and planning.

According to UNDP, this would create value for customers. The strategic plan for simulating findings was reviewed in conjunction with 2008-2011. Data analyses were done from the annual reports, statistical data and outcome trends. The study's scope included all geographic regions, global and management levels at corporate level. Specific case studies have been conducted five countries that included Zambia, Moldava, Indonesia, Egypt and Argentina. 365 responses were obtained for the study. Hettmut (2002) study that was largely based on strategic, institutional and developmental plans defines the internal project performance management process. They recommended an information management system, assessment of staff capability and full management engagement and transparency for project performance, collaboration with stakeholders as a way of improving relationships, establish crosscutting problems that may be involved in planning processes, global crisis, Good governance, recovery, changes in replication and gender equality (Crawford & Bryce, 2013). M&E are vital within all stages of project implantation because they allow those concerned with evaluating project's progress with

determining projects' effectiveness. Projects' outputs are affected by several variables, including stakeholder involvement, participation of those in management teams, technical expertise and planning processes (Hettmut, 2002).

2.6 Project completion

Project success may be defined in terms of deliverables, budget, and time (Laudo, and Laudon, 2015). According to Lock, (2007), project may be regarded as successful if it is completed on time, within budget and if it achieves desired outcomes that are set right at the start of project. Ombati (2013) asserts that projects have certain attributes that differentiate them from other activities conducted within organizations. Some of those attributes relate to the temporal nature of projects in terms of the time they start and complete.

The extent to which an organization completes projects within time determines their competitiveness. This is in relation to the fact that attainment of desired objectives depends largely on capacity to deliver outcomes within stipulated time. Even though timely completion determines projects' success, every project should be managed uniquely (Atencio, 2016).

The factors that determine project completion might be categorized as objective clarity, efficiency in project planning and managerial factors. Enshassi, Mohamed and Abushaban (2009) identify post-delivery stage and delivery stage as the two stages within project cycle. The delivery one addresses itself to standard measures that are concerned with doing things right whereas the post-delivery one focuses on issues related to organizations and consumers in terms of the way things are done. This stage demands that things should be done right. This involves getting things right rather than doing them right. Completion of the projects usually needs resources to be utilized in the right way in the right of various constraints. Accordingly, management, execution and planning are vital elements in project management. This might necessitate development of temporal groups of people I form of organizations that ensure things are done right (Laudon, and Laudon, 2015)

Montaño, Arce and Louman. (2016) elaborate that the process of implementing projects requires collective knowledge among various collaborators. However, the manner in which the project is implemented depends on size and type of project to be executed. This extends to the quality, scope, human resources, risks and costs involved in the project so that procurement process can be carried out in the right way. These sentiments are no different from that of Ntuala, (2010) who postulates that project implementation is concerned about designs, models and standards used in implementing various issues. Accordingly, implementation processes should follow pre-determined thinking process.

2.7 Theoretical framework

The study is anchored on structural functionalism theory; Parsons (1991). The most notable proponents of this theory included, Merton, Parsons, Durkeim, Blau, Radcliffe and others. The theory consider formal organizations to have many groups of people who work together to attain similar goals. It views organizations as large and multifaceted social units that have many sub-units that in some instances are harmonious, but in other instances are opposed to each other (Ceric, 2012). The functionalism element of the theory concern itself with formal processes in an organization in terms of the way order prevails regardless of changes that occur at personal level. The theory attempt to uncover the link between parts of an organization and the systems as a whole, and in particular, to identify how most of the stability has been achieved. The theory advocates for analysis of perceived interests and conflicts between various groups of workers. In the current study, it concerns itself to members of the board, contractors and the Ministry of Education. However, in order to understand the organizations, the theory recommends for consideration of conflicts of interest and differences in values.

In the above respect, the theory is utilized to explain the conflict between governing bodies and heat teachers who manage public secondary schools. This is critical in understanding why CDF funded projects delay to complete. Secondary schools are regarded as social systems within sub-systems and that interact with political environment in the process of receiving CDF. The sub-systems included in the analysis include BOM, PA, government, support staff, students, sponsors and teachers. The

interaction among these parties should be harmonious if educational goals are to be achieved effectively and if school projects are to complete on time. The theory is utilized against the few criticisms raised against it.

2.8 Conceptual framework

The conceptual framework will be used as a model to illustrate the interrelationship of concepts under investigation. The concepts, constructed into variables are based on study's objectives to maintain the study focus. The independent variables are management team's project management skills, management team's technical expert skills and management team's M&E skills. The dependent variable is completion of schools' projects funded from CDF. Figure 2.1 depicts the link between various variables.

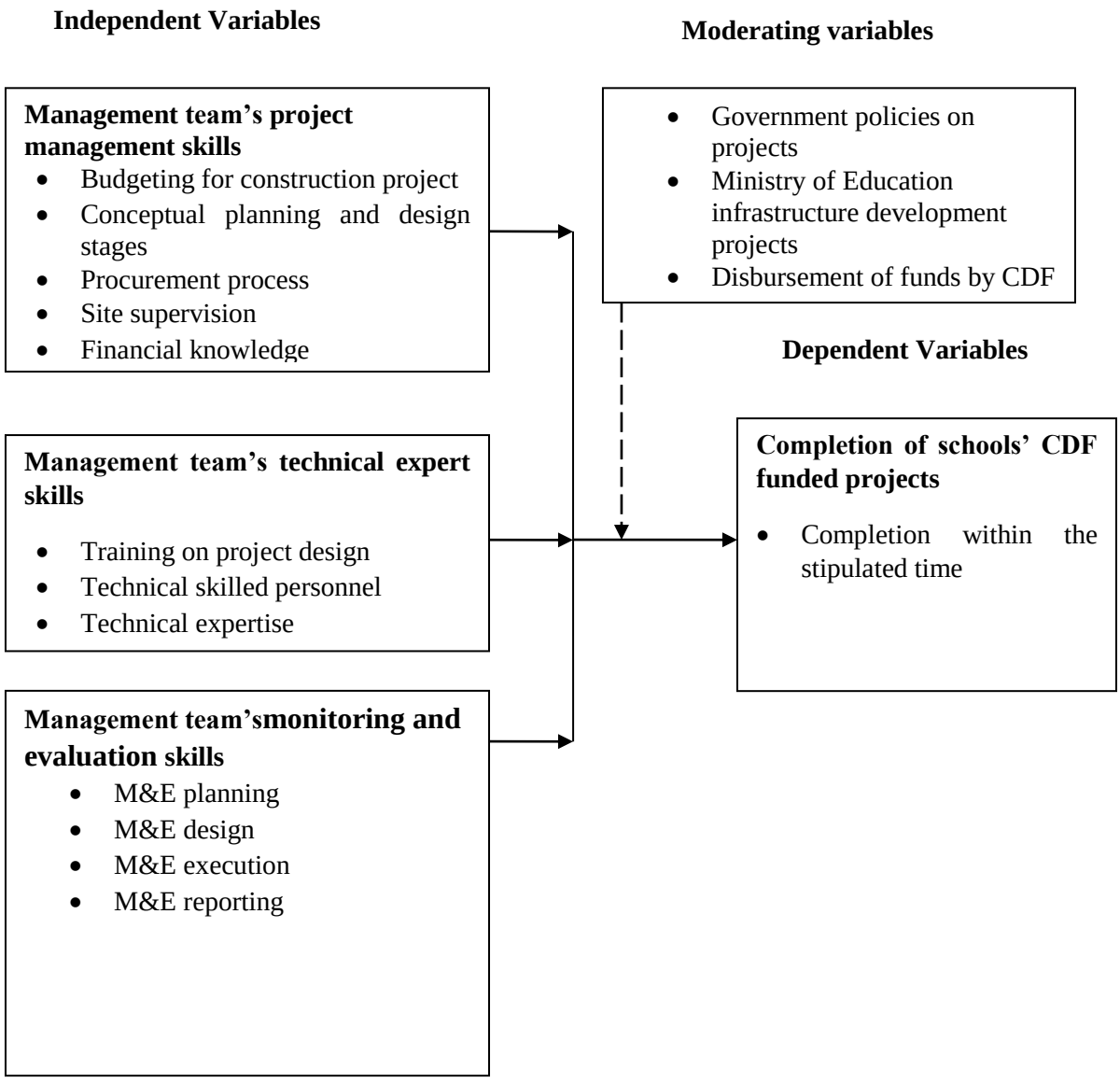

Figure 1: Conceptual Frame Work

The framework depicts the hypothesized link between variables. In the framework, the independent variables are indicated as management team's project management skills which are identified by knowledge of project, conceptual planning and design stages, procurement process, budgeting for construction project and site supervision. The second independent variable is management team's technical expert skills, which are indicated by training on project design, technical skilled personnel, technical expertise and

incorporation of technical experts. The third variable is management team's M&E skills which are indicated by M&E design, M&E planning, M&E reporting and M&E execution. All these factors will have an influence on the dependent variable which is completion of schools' CDF funded projects which is indicated by completion within the stipulated time,

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter sets out procedures utilized to conduct the study. It addresses itself to target population, the design utilized to collect and analyze the data, the ethical considerations observed to ensure that the study was ethical, the instruments and measures taken to improve their validity and reliability, the sampling process and method utilized to select the sample among other issues. The chapter also presents the operationalization of variables in the study.

3.2 Research Design

A descriptive research survey design was used to conduct the study. Accordingly, the research questions were formalized and structured in a clear manner (Al-Momani, 2010). The study aimed at producing statistical data that could be utilized by policy makers to ensure that CDF funded projects would be implemented in the right way. Most of descriptive survey designs are utilized in exploratory studies to enable researchers collect information, summarize and interpret it so that issues of concern can be clarified. Accordingly, with the help of this design, it was possible to collect data related to independent variables using research questions and relate that data to dependent variable. The design allowed researcher to collect data without manipulating it in any way

3.3 Target Population

This population consists of events, people and things from which sample is drawn from (Cooper & Schindler, 2005). Saunders, Lewis and Thornhill (2007) define target as a whole group of people, events or objects with common features. It is the sum total of everything that conforms to a given specifications. According to the Ministry of Education Murang'a County, Kiharu constituency has 31 public secondary schools and that will be the population under study.

3.4 Sample Size and Sampling Procedures

This section describes the sample size and sampling technique that the researcher used throughout the study.

3.4.1 Sample size

A sample size is selected from respondents who represent the entire population. This study purposively targeted 25 schools that have had infrastructure CDF development projects for the last 5years and whose projects are incomplete. The target population was therefore 25 principals, 25 BOM chairpersons and 25 Parents association chairpersons of 25 public secondary schools with stalled projects and 1 CDF chairperson as shown in Table 3.1.

Table 3.1 Sample Size

Category	Sample size
Principals	25
BOM Chairpersons	25
Parents association chairpersons	25
CDF Chairperson	1
Total	76

3.4.2 Sampling Procedure

According to Kothari (2007), sample is the small group of population that is utilized to collect data. Best (2013) defines it as a portion of population picked for analysis purposes. Kothari (2007) suggests that if the population for the study is small (less than 30) then the whole population is taken. Since the study targeted public secondary schools that had infrastructural development projects, in Kiharu constituency, the study purposefully selected all the 25 principals, 50 members of the BOM and a CDF chairperson.

3.5 Data Collection Instruments

The study relied on self-administered questionnaire and schedule of interview. The questionnaire was for the principals and members of the board while the interview was for the CDF chairperson. The questionnaire consisted of well written research questions that respondents were supposed to answer (Mugenda & Mugenda 2009). It is a research tool that collects data from a large sample. Questionnaires ensure respondents' anonymity, so their honesty is expected to be enhanced. The use of questionnaires enabled the respondents to express themselves freely (Mugenda & Mugenda, 2009). The benefits of using questionnaire include enabling researchers to explain the purpose of their studies to respondents and clarifying issues that might not be clear. The researcher distributed these questionnaires to the respondents to avoid the risk of losing some of them in the process of distributing them. The questionnaire contained closed ended questions.

3.6 Pilot Testing

According to Cooper and Schindler (2014), pilot study is preliminary test conducted before the final one to evaluate the effectiveness of research instruments. It helps in the identification of flaws in the design and implementation of data instruments and collection procedures. Mugenda and Mugenda (2003) assert that pilot studies with 10 percent elements of anticipated samples are sufficient. The test was conducted to evaluate the validity and reliability of questionnaire. Accordingly, 10 respondents from a neighboring Mathioya constituency were included in the pilot study. Three schools were selected for the pilot study but whose respondents were not part of the study. The piloting study helped in identifying unclear research questions. Accordingly, the unclear questions were revised until they produced similar results implying that they were clear to all respondents as stated by Mugenda and Mugenda (2003).

3.6.1 Validity of the Instruments

This refers to the degree to which results represent phenomenon under study (Kothari, 2007). It relates to the accuracy and meaningfulness of inferences made from results obtained from the data. The researcher utilized content validity to check whether the

items in the questionnaire answered the research objectives. Kothari (2007) defines it as the extent to which instruments cover issues under investigation adequately. The researcher tested the instruments for content validity. Various aspects of validity of research instruments like clarity and quality of questions and instructions in the questionnaires and adequacy of the operational definition of variables was achieved through consultation with the researcher's university supervisors. The research instruments have validated by the supervisors who acted as experts within the field of study. The author applied the supervisors ' recommendations.

3.6.2 Reliability of the Instrument

Donald and Delno (2006), defines reliability of research tool as the accuracy of the results obtained. This relates to stability and equivalence. It concerns itself with degree of consistency in results. The researcher used the test and re-test approach at a three-week interval to ensure reliability. Ten participants have completed the study questionnaire on two different occasions. These questionnaires were used in computing the test-retest reliability. The Pearson's *r* (reliability coefficient) was .93. A Pearson's *r* above 0.70 demonstrates good test-retest reliability (Polit & Beck, 2004). These findings suggest the level of management skills demonstrated stability over time. A coefficient ranging between 0 and 1 was produced to measure the reliability. This was concerned with evaluating the internal consistency when Likert scale with multiple responses is used to collect data (Larry, 2013). The reliability yielded an α of 0.821 for the principals and α =0.800 for the BOM members, hence the two questionnaires were deemed reliable. A questionnaire with a 0.7 and above is considered reliable Field (2009).

3.7 Data Collection Procedures

Before the data was collected, an introduction letter from UoN was obtained from the university. Similarly, a similar permit was obtained from NACOSTI before the data was collected. Permissions were further sought from County and sub-county Directors of Education. After which schools were visited, rapport was created with principals, issued them with questionnaires and conducted the interview. The researcher used the principals' contacts with BOM members and was able to reach them and give them the

questionnaires. Before issuing them with questionnaires, the researcher assured them that the data they provided would be treated with high level of confidentiality.

3.8 Data Analysis Techniques

The process of analyzing the data started with data cleaning and editing. Data cleaning includes the detection and deletion (or correction) of data set or database set anomalies or inconsistencies due to corruption or incorrect data. Incomplete, incorrect or irrelevant data is identified or either replaced, modified or deleted. Data editing entails reviewing and adjusting survey data collected. The process is aimed at controlling the quality of data without altering it. This was done to identify the respondents' errors like spelling errors and unanswered questions. Information on the questionnaires were edited before they were coded by reviewing the information bits. The method helped identify the items to which respondent replied incorrectly, spelling errors and blank spaces left by respondents. The data was then coded to allow for statistical analysis to facilitate data entry into a computer.

The study SPSS version 21.0 was then utilized to analyze the data. This was done based on research questions. Both descriptive and inferential data analysis techniques were utilized to analyze the data. The descriptive statistics included measures of central tendency, percentages and frequency distributions were used to analyze the scores distribution (Vanderstoep & Johnston, 2009).

Frequencies were used to show the number of respondents who responded to various questions. The percentages on the other hand were used to show the fraction of respondents in favor of particular responses (Hall, 2015). The study used mean scores to show the tendency of the respondents on average in replying to the questions asked (Glăveanu, 2012). A 5-point Likert Scale with; Strongly Agree = five; Agree = four; undecided = three, Disagree = two and Strongly Disagree = one. A mean score of between 0 – 1.5 implies strongly disagree, a mean of between 1.6 - 2.5 implied a disagree, , 2.6 -3.5 is undecided, 3.6 – 4.5 implied agree while a man score or between 4.6 and 5 implied strongly agree (Neuendorf, 2011). The standard deviation showed the amount of variation of the responses given by the respondents (Nicholson, Kershaw, &

Nicholson, 2011). In respect to the used Likert scale with a variance of one form one choice to the other, a standard deviation of more than 1.0 would imply large spread of responses from the mean and therefore lack of consensus among the respondents.

On the other hand, a standard deviation greater than 1 implies large spread hence lack of consensus, between 1.0 - 0.5 implies moderate consensus while a standard deviation of less than 0.5 implies small spread hence high consensus among the respondents. A small value of standard deviation was therefore desired. The Pearson product-moment correlation coefficient was also used to measure strength and direction of association among various variables.

3.9 Ethical Considerations

These aspects are very important in the context of the research process. Ethics in research can be defined as a standard of conduct that differentiates acceptable behaviors in scientific research from the unacceptable ones (Wambugu, 2015). Generally, researchers are barred from shaming, causing pain and enforcing disastrous consequences on the respondent. Certain scientific principles have been identified and adhered to by the author. Some of those measures include protecting respondents from any possible harm by ensuring that probable harms were evaluated before the study was conducted and addressed to ensure that respondents would not be harmed in any way. Others included ensuring that respondents were fully informed about potential risks before they participated in the study. This included making sure that they understood that they names or nothing that could be used to identify them was utilized in data analysis and reporting process. In addition, it included making sure that they understood that they could withdraw from the study at any given time if they wished to withdraw from it (Israel, 2015). All these measures were observed before the respondents were selected to take part in the study. Confidentiality on its part was attained by asking respondents not to include their names of those of schools on their responses.

3.10 Operationalization of Variables

Operationalizing a variable or a definition means describing it so that it can be measured and /or quantitatively or qualitatively expressed (Williamson, 2016). It seeks to remove

ambiguity in written work and research by defining all relevant variables such that they can be objective or subjective. It is not possible to construct a meaningful data collection instrument without first operationalizing all the variables. The variables were operationalized as Table 3.1 depicts.

Table 3.1: Operationalization of variables

Research objectives	Independent variable	Dependent variables	Measurement Scale	Tools of analysis	Type of analysis
To establish the influence of Management team'sproject Management skills on completion of school infrastructure development projects in public secondary schools in Kiharu Constituency	Management skills	Completion of school infrastructure development projects in public secondary schools in Kiharu Constituency	Ratio scales	• Percentages • Frequencies • Pearson's Moment Correlation	Descriptive statistics
To establish the influence of Management team's technical expert on completion of school infrastructure development projects in public secondary schools in Kiharu Constituency	Management team's technical expert	Completion of school infrastructure development projects in public secondary schools in Kiharu Constituency	Ratio scales	• Percentages • Frequencies • Pearson's Moment Correlation	Descriptive statistics
To establish the influence of Management team's monitoring and evaluation skills on completion of school infrastructure	Management team's monitoring and evaluation skills	Completion of school infrastructure development projects in public secondary schools in Kiharu Constituency	Ratio scales	• Percentages • Frequencies Pearson's Moment Correlation	Descriptive statistics

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

The chapter discusses the data with a view to interpreting and presenting it. The quantitative data is analyzed using inferential and descriptive statistics whereas the qualitative one is analyzed using content method. Most of the data is presented in form of percentages, frequency tables, distributions so that it can be understood easily. The sample included in the study had 75 respondents. Out of this, only of them filled their questionnaires and returned them for analysis. Consequently, the response rate was 89.3%. This was considered adequate based on Mugenda and Mugenda (2012) who regard 60% as good and that, which is above 70% as excellent.

4.2 Demographic Information

The study commenced by analyzing respondent's background information. Specifically information inquired in this section included gender information, age categories, educational status, period of service, school category and number of students in the school.

4.2.1 Distribution of Respondents by Gender

To obtain some of demographic information, the questionnaire demanded respondents to provide their gender. This was aimed at ensuring that both genders were involved in the study at almost equal rate. The results are in Table 4.2

Table 4.2: Gender Male

Category	Frequency	Percentage
Male	41	61.2
Female	26	38.8
Total	67	100.0

Results gathered showed that most of them (61.2%) were males whereas 38.8% of them were females. Drawing from it is evident that both genders were involved in the study, even though

the number of males was slightly higher than that for females. Nonetheless, the findings did not suffer from gender bias as shown in Table 4.2.

4.2.2 Distribution of Respondents' By Age

The respondents were further requested to provide their age categories. This was done because it was believed that people from different age groups could hold varying opinions. Based on this, it was necessary to group them based on their ages and the results are in Table 4.3

Table 4.3: Distribution of Respondents' By Age

	Frequency	Percentage
31-40 years	17	25.4
41–50 years	36	53.7
51 and above	14	20.9
Total	67	100.0

The findings showed that most of the respondents (53.7%) were aged between 41 and 50 years, whereas 25.4% of them were between 31 and 40 years and 20.9% were over 51 years. This demonstrated that the respondents from various age categories were represented fairly as shown in Table 4.3.

4.2.3 Highest Educational Level Attainment

Since education is largely linked to one's level of understanding and interpretation of various issues, there was the need to determine the education levels for the participants. In this respect, the questionnaire requested respondents to provide their highest levels of education and results are as shown in Table 4.4

Table 4.4: Highest academic qualification

		highest academic qualification			
		Degree	Masters	PHD	Total
Position	Principals	10	4	6	20
	BOG Members	19	28	0	47
Total		29	32	6	67

The total number of school principals involed was 20, out of which 10 held Bachelors Degree, 6 held PhDs whereas 4 held Masters Degree. The BOG members who took part in the study was 47, from which 19 had Bachelor's Degree and 28 of them had Master's Degree as shown in Table 4.4. As the results demonstrate, it can be concluded that all of the respondents were educated implying they could answer research questions in the right way.

4.2.4Period of Service as school Principal or BOG member

The respondents were further required to provide the number of years they had served in the school as principals. The results are as shown in Table 4.5.

Table 4.5: Period of Service

	Frequency	Percentage (%)
0-1 year	13	19.4%
] 1-2 years	12	17.9%
3-4 years	23	34.3%
5-10 years	19	28.4%
Total	67	100.0%

Table 4.5 depicts that most of them (34.3%) had served as principals for between 3 and 4 years, 28.4% for between 5 and 10 years, 19.4% for less than a year whereas 17.9% had served for between 1 and 2 years. The findings show that majority of them had been principals for considerable time thereby they could provide information that could be relied upon.

4.2.5 School Classification

School principals indicated the status of school in terms of ranking. This sought to ensure that there was equitable involvement of head teachers heading various categories of schools. The results are shown in Table 4.6.

Table 4.6: School Category

	Frequency	Percentage

National School	2	10
County School	4	20
Extra-County school	7	35
Sub-County school	7	35
Total	20	100

Results in Table 4.6 show that 35% of the principals were administering either Sub-County schools or Extra-County schools, 20% of the principals were administering County Schools, while 10% of the principals were administering National Schools. Results also show that equitable involvement of teacher's heading various school categories.

4.2.6 School Categorization in Terms Pupils Gender

Furthermore, school principal indicate the status of schools in terms students they held, and results were as shown in Table 4.7.

Table 4.7: School category

	Frequency	Percentage
Boys only	4	20
Girls only	6	30
Mixed boarding	5	25
Mixed Day	5	25
Total	20	100

Results in Table 4.7 show that 30% of the principals were administering pure Girls schools, 25% of the principals were administering mixed boarding or mixed day schools while 20% of the principals were administering pure boys schools. The findings showed that all categories of school in terms of occupation were well involved in this study.

4.2.7 Number of Students in the School

Respondents were required to specify the number of students in the school and results are in Table 4.8

Table 4.8: Number of Students in the School

	Frequency	Percentage
201 – 500	7	35
501 – 1000	10	50
Above 1000	3	15
Total	20	100

From the research findings shown in Table 4.8, majority of the principals (50%) indicated that the school had between 501 and 1000, 35% of the principals indicated that the school had between 501 to1000 while 15% of the principals of the principals indicated that the school. This implies that most of the school had a population of between501 to 1000 students.

4.2.8 Projects completed by the school in the last five years

Respondents were required to specify the number of development projects completed by the school administration in the last five years. The results are presented in Table 4.9.

Table 4.9: Projects completed by the school in the last five years

	Frequency	Percentage (%)
0-1 projects,	24	35.8
1-3 projects,	27	40.3
3-5 projects,	16	23.9
Total	67	100.0

Table 4.9 depicts that 40.3% of the respondents had between 1 and 3 projects completed, 35.8% of the respondents indicated 0 to 1, while 23.9% of the respondents indicated 3 to 5 projects, projects; this implies that projects completedby most school in the last five years raged between 1 to 3 projects.

4.2.9 Projects Implementation Duration

The study evaluated whether CDF sponsored school projects were completed on schedule. Results are in Table 4.10.

Table 4.10: Projects implementation schedule

Opinion	Frequency	Percentage
Yes	21	31.3%
No	46	68.7%
Total	67	100.0

Table 4.10 depicts that majority of principals (68.7%) indicated that the project was not completed on schedule while only 31.3% indicated that projects were completed within scheduled time. This implied that most of those projects were never completed on time.

4.2.10 Entities In Charge Of CDF Sponsored School Projects

Participants were required to mention all the entities in charge of CDF sponsored school project and their responses are in Table 4.11.

Table 4.11: Entities in charge of CDF sponsored school projects

	Frequency	Percentage
The principal	53	79.1%
The BOM	49	73.1%
The PA	41	61.2%
CDF	46	68.7%

Among those who were incharge of projects included school principals 79.1%, The BOM as show by 73.1%, the CDF committee 38.7% and the lest involved was the PA 61.2% as shown in Table 4.11.

4.11 Training On Project Management

Participants were required to specify whether they had any form of training on project management. Results are in Table 4.12.

Table 4.12: Training On Project Management

	Frequency	Percentage
Yes	6	30
No	14	70
Total	20	100

Table 4.12 depicts that that majority of the principals (70%) had never been train on project management while only 30% had trained on project implementation procedures. This implies that most of principals had never been trained on project management and thus contributing to poor implementation of school development projects sponsored by CDF.

4.3 Management team's project management skills and completion of school infrastructure development projects

As regards this issue, the respondents were required to specify their level of agreement with statements that addressed themselves to link between team's project management skills and completion of development projects. The results are in Table 4.13.

Table 4.12: Management team'sProject Management Skills

Statement	N	Min	Max	Mean	StdDev
Management team's lack of project management skills has crippled school infrastructure development projects	67	3.00	5.00	4.06	0.76
Poor knowledge of project management by the Management team'scripple project completion	67	3.00	5.00	4.18	0.78
Failure at theoretical planning and design stages by the Management team has led to considerable problems in various stages of school infrastructure development projects	67	3.00	5.00	4.25	0.72
Efficiency in project management affects the speed of school infrastructure development projects completion	67	3.00	5.00	4.24	0.78
Poor financial management skill by the Management teamhas crippled school infrastructure development projects completion	67	3.00	5.00	4.25	0.50
Misappropriations of project funds by the principal lead to incompletion of school infrastructure development projects	67	3.00	5.00	4.07	0.74
Poor procurement process has affected school	67	3.00	5.00	4.04	0.79

infrastructure development projects completion					
Poor budgeting for construction project elements by the Management teaml affects completion of construction project	67	3.00	5.00	4.00	0.80
Not all the Management team have management skills on school infrastructure development projects	67	3.00	5.00	4.12	0.73
Poor supervision by the Management team delays projects from completing on time.	67	3.00	5.00	4.04	0.81

Table 4.13 depicts that most of the respondents were in agreement that failure at theoretical stage had impact in other stages of project (M=4.25, SD=0.72), poor financial management skill by the Management team had crippled school infrastructure development projects completion (M =4.25 SD =0.50), effectiveness of construction management affected the speed of school infrastructure development projects completion (M=4.24 SD = 0.78), and that poor knowledge of project management by the Management team crippled project completion (M=4.18 SD =0.78). The above results concur with those by Muchoki, and Namusonge, (2015) because project managers are expected to plan, maintain, evaluate, implement and control projects including providing the human resources, physical facilities and financial inputs.

Also the study revealed that not all the school management teams have management skills on school infrastructure development projects (M = 4.12 SD =0.73), misappropriations of project funds by the principal led to incompletion of school infrastructure development projects (M =4.07 SD =0.74) and thatmanagement teams' lack of project management skills has crippled school infrastructure development projects (M = 4.06 SD =0.79) as shown in Table 4.13. This is in line with the findings by Mwakio and Derrick, (2015) that project manager has a responsibility to ensure that risks are identified and managed appropriately.

Further the study revealed that poor procurement process has affected school infrastructure development projects completion(M = 4.04 SD =0.79), poor supervision at site by management team delays projects from completing on time (M = 4.04 SD =0.81) and that poor budgeting for construction project elements by the management teamaffects completion of construction project

(M =4.00 SD =0.80) as shown in Table 4.13. The above results are in agreement with those by Oyalo and Bwisa, (2015) that shows that lack of commitment among managers affects the way other people in lower ranks perform their duties.

4.4 Management team's technical expertise and completion of school infrastructure development projects

Furthermore, the respondents specified their level of agreement with the following statement assessing on the relationship between Management team's technical expert and completion of school infrastructure development projects as presented in Table 4.14.

Table 4.14: Statements management teams technical expertise

Statement	N	Min	Max	Mean	StdDev
Many of school infrastructure development projects fail to complete due to lack of technical expertise by the Management team	67	3.00	5.00	4.21	0.71
Lack of technical expert by the Management team has affected the completion of school infrastructure development projects	67	3.00	5.00	4.24	0.61
Technical expert is vital in capacity building because it facilitates interaction and project management	67	4.00	5.00	4.27	0.45
Professionally trained staff and a budget are a key requirement in completion of school infrastructure development projects	67	3.00	5.00	4.12	0.69
Most of the schools have a set aside team of experts from the Management team who monitor the school projects	67	3.00	5.00	4.22	0.69
Most schools comprise of Management team who have less technical skilled personnel.	67	3.00	5.00	4.19	0.63
Technical expertise is important in the completion of school infrastructure development projects	67	3.00	5.00	4.07	0.84

Most Management team are equipped with the right technical skills linked to project completion	67	2.00	4.00	2.60	0.72
Management team need the necessary technical expertise in project management	67	3.00	5.00	4.18	0.69
Most Management team are not willing to incorporate technical experts in the their school infrastructure development projects	67	3.00	5.00	4.15	0.70

Table 4.14 depicts that most of the management teams were in agreement that technical expertise was vital in capacity building because it facilitated interaction and project management (M = 4.27 SD =0.45),lack of technical expert by the Management team has affected the completion of school infrastructure development projects (M = 4.24 SD =0.61), most of the schools set aside a team of experts from the Management teamwho monitor the school projects (M =4.22 SD =0.69) and that many of school infrastructure development projects fail to complete due to lack of technical expertise by the Management team(M =4.21 SD =0.71). The above results concur with those by Robbins & Coulter (2012) that demonstrate that managers who are conceptually skilled can enable organizations to achieve their objectives by ensuring that their strategies are aligned in the right way.

Also the study revealed that most schools comprise of management teamswith less technical skilled personnel (M =4.19 SD =0.63),management teams need the necessary technical expertise in project management (M = 4.18 SD =0.69) and that most Management teamare not willing to incorporate technical experts in the school infrastructure development projects as shown in Table 4.14. This is in agreement with research findings by Ireland (2004). Accordingly, managers require conceptual, human and technical skills.

Further the study revealed that theManagement teamis not willing to incorporate technical experts in the their school infrastructure development projects (M = 4.15 SD =0.70) Professionally trained staff and a budget are a key requirement in completion of school infrastructure development projects (M =4.12 SD =0.61) and that technical expertise is important in the completion of school infrastructure development projects (M =4.07 SD =0.84) however Management team disagreed that they were equipped with the right technical skills linked to

project completion (M = 2.60 SD =0.72). The above results support those by Gray and Larson, (2018) that show that project success lies on the ability of managers to lead and help team towards a completing common goal of the objectives.

4.5 Management team'sMonitoring and Evaluation Skills

Moreover, the respondents specified their level of agreement with the following statement that assessed the link between principal's M&E skills and completion of school infrastructure development projects as shown in Table 4.15.

Table 4.15: Statements Assessing on Management team's Monitoring and Evaluation Skills

Statement	N	Min	Max	Mean	StdDev
M&E ensures that products are of high quality and projects are delivered on time.	67	4.00	5.00	4.49	0.50
There has been clear M&E among school infrastructure development projects	67	3.00	5.00	4.12	0.71
Most of the school infrastructure development projects fail to complete on time because they lack clear M&E procedures among the Management team	67	3.00	5.00	4.24	0.55
Most of the school infrastructure development projects do not have M&E procedures	67	4.00	5.00	4.45	0.50
M&E is a core tool in completion of school infrastructure development projects	67	3.00	5.00	4.21	0.59
Monitoring enable staffs and managers to ensure that projects run as anticipated right from start	67	4.00	5.00	4.45	0.50
There is notable link between M&E practices and completion of school infrastructure development projects	67	4.00	5.00	4.43	0.50
Most of the Management team members are not well versed with M&E of projects	67	3.00	5.00	4.04	0.71

M&E are vital in all stages of project management	67	3.00	5.00	4.18	0.60
Monitoring minimizes time lag and cost overruns	67	2.00	5.00	4.00	0.78

Table 4.15 depicts that most of the people in management teams agreed that M&E ensured that product quality was upheld all the time and that projects completed on time (M = 4.49 SD =0.50), most of the school infrastructure development projects did not have monitoring and evaluation procedures (M=4.45 SD=0.50) and that monitoring enabled staffs and managers to ensure that projects ran as anticipated right from start (M=4.45 SD=0.50). Furthermore, they depict a notable link between M&E practices and completion of school infrastructure development projects (M =4.43 SD =0.50). The above results agree with the ones by Ballard (2016) that show that strong M&E processes help those tasked with implementing projects in making informed decisions in relation to issues relating to service delivery, utilization of objective evidence, program efficiency and operation.

Also the study revealed that most of the school infrastructure development projects have failed to complete because they lack M&E procedures among the Management team, M&E is regarded as vital in the completion of school infrastructure development projects(M =4.21 SD=0.59) and that most of the school infrastructure development projects have failed to complete because they lack clear M&E procedures among the Management team (M=4.24 SD=0.55) and that M&E are vital in all stages of project execution (M=4.18 SD=0.60) as shown in Table 4.15. This is in agreement with research findings by Buertey, Adjei–Kumi and Amoah (2011) Monitoring and evaluation skills assists project managers in improving the implementation of projects and achievement of results

Further the study revealed that there has been clear M&E in school infrastructure development projects (M=4.12 SD=0.71), most of the Management team members are not well versed with the M&E of projects (M=4.04 SD =0.71) and that monitoring helped in minimizing time delays and cost overruns (M=4.00 SD=0.78) as shown in Table 4.15. The above results are in agreement

with those by Ochieng and Tubey (2013) that show that about 40 percent of projects in the country fail because they lack M&E strategies.

4.6 Completion of School Infrastructure Project Sponsored By CDF

Beside the above, the study evaluated the general performance of secondary school projects within the study area. The descriptive results are in Table 4.16.

Table 4.16: Completion of School Infrastructure Project Sponsored By CDF

Statement	N	Min	Max	Mean	StdDev
Completion within the stipulated time	67	1.00	3.00	1.99	0.86
Completion within the stipulated budget	67	1.00	3.00	1.97	0.85
Adherence to Quality standard	67	1.00	3.00	1.84	0.88
Stakeholder Satisfaction	67	1.00	3.00	2.01	0.86
Performance to Business Case	67	1.00	3.00	1.90	0.87

The study revealed that school infrastructure development projects in those schools failed to adherence to quality standards (M =1.84 SD = 0.88), performance to intended case was generally low (M =1.90 SD =0.87), most of the school infrastructure development projects never completed within stipulated budget (M =1.97 SD =0.85), projects never completed on time (M = 1.99 SD = 0.86) and stakeholder Satisfaction on school infrastructure development projects in those schools was low (M =2.01SD =0.86) as shown in Table 4.16. The above results are in line with those by Franks and Curswoth, (2003) that established a strong positive correlation between manager's capacity and project performance.

4.7 Response from Interviewees

The CDF chairperson reported that the school Management team’s project management skills affected the way those projects were implemented in the study area. The Interviewees also claimed that lack of managerial skills among people involved in executing those projects was a major inhibiting factor in the implementation of school CDF sponsored projects in Kiharu Constituency

Results from interviewees also confirmed that conceptually skilled competent School Principals could keep implementation of CDF sponsored projects on right tracks by making changes to strategic plans; success on school infrastructure CDF sponsored projects. Principals together with the BMOs and PAs understood the technical issues of the projects and their objectives. As a result, school principals needed to devote time and energy to those projects to ensure they complete on time.

Further interviewees reported that lack of BOM and PA members project management skills led poor management of the projects, overburdened those tasked with executing projects and even lowered the motivation of various stakeholders in those projects. As a result, they identified competence and commitment within project management as critical in offering direction and motivation stakeholders in completing their specific job functions, which enhance quality implementation of CDF, sponsored projects. Authority (2009), that the project manager has a responsibility to ensure that risks are identified and managed appropriately

Interviewees reported that Management team's technical expertise skills on completion of school infrastructure development projects were statistically significant. Many of school infrastructure development projects fail to complete due to lack of technical expertise by the Management team. Management team's lack of technical expertise affected the completion of school infrastructure development projects. Management team was not willing to incorporate technical expertise in the school infrastructure development projects.

Interviewees reported monitoring supports from principals, BOM and PA helped in determining whether projects were advancing as anticipated right from start. Interviewees reported also reported that that the principals agreed that considerable links existed between M&E practices and completion of school infrastructure development projects. They all agreed that monitoring helped in minimizing time lags and cost overruns.

Interviewees reported the evaluation of CDF sponsored projects in schools needed to provide information that could be relied upon because it was useful and credible. They further reported that monitoring of CDF sponsored projects was conducted on regular basis on all school projects in Kiharu Constituency in line with scheduled time. Equipping Management team with monitoring and evaluation skills can help in providing feedbacks relating to project execution

that could be critical in identifying possible constraints on projects so that decisions can be made on timely basis. Unfortunately School in Principals, BOM and PA team in Kiharu Constituency barely understood the concepts of M&E and therefore negatively affecting projects outcomes.

4.8 Inferential Statistics

The Pearson and regression analysis were conducted to help in generalizing outcomes to CDF projects in Kiharu Constituency. This was aimed at evaluating the strength of associations between principals management skills (independent) and completion of school development projects (dependent variable) in Kiharu constituency, Murang'a.

4.8.1 Correlation Test

The Karl Pearson's product moment correlation analysis was conducted to evaluate the link between various variables in the study, and the results in Table 4.17:

Table 4.17: Correlation Results

		Completion Of School Infrastructure Development Projects Y	Project Management Skills (X1)	Technical Expert Skills X2	Monitoring And Evaluation Skills (X3)
Completion Of School Infrastructure Development Projects Y	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	67			
Project Management Skills (X1)	Pearson Correlation	.418**	1		
	Sig. (2-tailed)	.000			
	N	67	67		
Technical Expert Skills (X2)	Pearson Correlation	.481**	.310*	1	
	Sig. (2-tailed)	.000	.011		
	N	67	67	67	
Monitoring And Evaluation Skills (X3)	Pearson Correlation	.355**	.038	.301*	1
	Sig. (2-tailed)	.003	.761	.013	
	N	67	67	67	67

Table 4.17 depicts a positive correlation of 0.418 between Project Management Skills and completion of school development projects within Kiharu Constituencyas. Because this figure (0.418) is almost equal to 0.5 it is regarded as strong. In addition, it is significant because its p-value, 0.000, is less than 0.05. The study also established a positive correlation between technical expert skills and completion of school development projects in the constituency. This was in line with a correlation coefficient of 0.481 that was significant (p-value = 0.00). Similarly, the correlation was regarded as strong because it was close to 0.5. Furthermore, there was strong correlation that was positive between M&E skills and completion of school development projects in Kiharu-based secondary schools. The correlation coefficient was 0.355 with a p-value of 0.000 suggesting that it was significant. These findings were in agreement with those by Ambrosiana,

(2003) that depict a strong positive correlation between project performance and managers strong monitoring and evaluation skills.

4.8.2 Regression Test

The multiple regression analysis was carried out to evaluate the impact of predictor variables on the dependent one. The SPSS V 21.0 was utilized to conduct the analysis, and the results are in Table 4.18.

Table 4.18: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.606[a]	.368	.338	.56990

The coefficient of determination was utilized to appraise the model's fit. The coefficient evaluated the extent to which the independent variables could be utilized to explain the variation in the dependent variable. As Table 4.18 depicts, the R^2 value was 0.338 implying that the model could explain about 33.8 percent of variation in completion of school projects within Kiharu constituency. This was explained by independent variables that included project management skills, technical expert skills and monitoring and evaluation skills.

The significance of the model was evaluated using the ANOVA technique and the findings are in Table 4.6.

Table 4.3: Summary of One-Way ANOVA results

Model		Sum of Squares	.Df	Mean Square	F	Sig.
1	Regression	11.904	3	3.968	12.217	.000[b]
	Residual	20.462	63	.325		
	Total	32.366	66			

Critical value =5.658

Table 4.3 depicts that the model had a significance level of 0.00% implying that the model could be utilized to predict the dependent variable at 5% significance level. Alternatively, the calculated critical value (12.217.> 5.628) implying that project management skills, technical expert skills and M&E skills all have considerable effects on completion of school infrastructure development projects within Kiharu-based secondary schools. The results are shown in Table 4.70.

Table 4.4: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.188	.587		3.730	.000
	Project Management Skills (X1)	.582	.196	.313	2.964	.004
	Technical expert skills (X2)	.549	.197	.309	2.790	.007
	Monitoring and evaluation skills (X3)	.474	.200	.250	2.375	.021

From the values contained in Table 4.4, then equation ($\mathbf{Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon}$) becomes:

$$Y = 2.188 + 0.582X_1 + 0.549X_2 + 0.474X_3$$

This implies that a unit change in project management skills by school Management team's while other factors are held constant has positive impact on completion of school infrastructure development projects in Kiharu-based secondary schools by a factor of 0.582. Similarly, a unit change in technical expert skills by Management team's while other factors are held constant has positive effect on completion of school infrastructure development projects in Kiharu-based secondary schools by a factor of 0.549. Furthermore, a unit change in M&E skills by school Management team's while other factors are held constant has positive effect on completion of

school infrastructure development projects in Kiharu-based secondary schools by a factor of 0.474. The findings agree with Robbins & Coulter (2012) that conceptually skilled managers are able to make sure organizations succeed by adjusting strategies as needed.

The significance level was taken to be 5% throughout the study. Accordingly, the criterion making decisions was based on this figure meaning that if the p-value was less than this value, then the predictor variable was considered to be significant. Otherwise, it was insignificant. As the above results indicate, all predictor variables had notable effect on project completion because their p-values were less than 0.05.

4.9 Discussion of the Findings

In line with the first objective, the study established a strong positive correlation between Management team's project management skills and completion of school development projects (Correlation coefficient =0.418, P-value = 0.000). The regression results depicted that a unit increase or enhancement on Management team's project management skills would enhance timely completion of school infrastructure development projects by a factor of 0.582.

From the descriptive statistics, the management team agreed that failure at theoretical planning had notable effects on other stages of project implementation, poor financial management skills by the principals, BOM, and CDF officials has crippled school infrastructure development projects completion (M =4.25 SD =0.50), project management affected the speed of project implementation and completion (M=4.24 SD = 0.78) and that poor knowledge of project management by the principal cripple project completion(M=4.18 SD =0.78). The above results concur with research findings by Muchoki, and Namusonge (2015) that show that principals play critical roles in planning, managing, maintaining and implement school projects. They provide the human resources, financial resources and physical materials.

Also the study revealed that not all the principals have management skills on school infrastructure development projects (M = 4.12 SD =0.73), misappropriations of project funds by the principal led to incompletion of school infrastructure development projects (M =4.07 SD =0.74) and that Principal's lack of project management skills has crippled school infrastructure development projects (M = 4.06 SD =0.79). This concurs with research findings by Mwakio and

Derrick, (2015) that project manager has a responsibility to ensure that risks are identified and managed appropriately.

Further the study revealed that poor procurement process has affected school infrastructure development projects completion, poor supervision by principals delays projects from completing on time (M = 4.04 SD =0.79) and that poor budgeting for construction project elements by the principal affects completion of construction project (M =4.00 SD =0.80). The above results concurred with those by by Oyalo and Bwisa, (2015) that showed that lack of commitment among managers affected the way other people in lower ranks perform their jobs.

As regards the second objective, the study established a strong positive correlation between principal's technical expertise and completion of school infrastructure development projects (Correlation coefficient = 0.481 P- value =0.00). The regression results showed that a unit increase or enhancement on principal's technical expertise would enhance timely completion of school infrastructure development projects by a factor of 0.549. The findings were in agreement with those by Ambrosini, (2003) that established a strong positive correlation between project performance and managers technical expertise.

Descriptive results show that technical expertise is vital in capacity building because it facilitates interaction and project management (M = 4.27 SD =0.45),lack of technical expert by the principal has affected the completion of school infrastructure development projects (M = 4.24 SD =0.61), most of the schools have set aside team of experts who monitor the school projects (M =4.22 SD =0.69) and that many of school infrastructure development projects fail to complete due to lack of technical expertise by the principal (M =4.21 SD =0.71). The above results concur with research findings by Robbins & Coulter (2012) that show that conceptually skilled managers are able to help organizations achieve goals by tweaking strategies.

Also the study revealed that most schools comprise of principals who have less technical skilled personnel (M =4.19 SD =0.63), principals need the necessary technical expertise in project management (M = 4.18 SD =0.69) and that most principals are not willing to incorporate technical experts in the school infrastructure development projects. This concurs with research findings by Ireland (2004). As a result, managers require conceptual, human and technical skills.

Further the study revealed that most principals were not willing to incorporate technical experts in the their school infrastructure development projects (M = 4.15 SD =0.70), professionally trained staff and a budget are a key requirement in completion of school infrastructure development projects (M =4.12 SD =0.61) and that technical expertise is important in the completion of school infrastructure development projects (M =4.07 SD =0.84). However principles disagreed that they were equipped with the right technical skills linked to project completion (M = 2.60 SD =0.72). The above results agree with the ones by Gray and Larson, (2018) that show that the success of projects depend on managers' ability to lead and help team towards a completing common goal of the objectives.

As regards the third objective, the study established a strong positive correlation between principal's technical expertise and completion of school infrastructure development projects (Correlation coefficient = 0.355 P- value =0.03). The regression results showed that a unit increase or enhancement on principal's technical expertise would enhance timely completion of school infrastructure development projects by a factor of 0.474.

The descriptive results identify M&E as an important element in making sure that products are of high quality and projects are delivered on time (M = 4.49 SD =0.50), most of the school infrastructure development projects do not have monitoring and evaluation procedures(M=4.45 SD=0.50) and that monitoring enable staff members and managers to evaluate whether projects are implemented as anticipated right from the start or not and that significant link exists between M&E and completion of school infrastructure development projects (M =4.43 SD =0.50). The findings concur with the ones by Ballard (2016) that show that strong M&E processes help in making decisions that relate to service delivery, program implementation and execution of evidence based objectives.

Also the study revealed that most of the school infrastructure development projects failed to complete because they lacked clear M&E procedures among the principals, M&E was regarded as vital elements in project completion (M =4.21 SD=0.59) and that most of the school infrastructure development projects failed to complete on time because they lacked clear M&E procedures among the principals (M=4.24 SD= 0.55). Furthermore, it established that M&E was vital to every stage in project implementation (M=4.18 SD=0.60). This was in agreement with

research findings by Buertey, Adjei–Kumi and Amoah (2011) who established that M&E skills assists project managers in improving the implementation of projects and achievement of results

Furthermore, the study established that there was clear M&E guide for the school infrastructure development projects (M=4.12 SD=0.71), most of the principals are not well versed with the M&E of projects (M=4.04 SD =0.71) and that monitoring minimized time lags and cost overruns (M=4.00 SD=0.78). The findings agreed with those by Ochieng and Tubey' work of (2013) that demonstrated that about 40% of projects in the country failed because they lacked M&E strategies.

The study also established that most of school projects in the constituency failed to adhere to quality standards (M =1.84 SD = 0.88), performance to intended case was generally low (M =1.90 SD =0.87), most of the school development projects never completed within stipulated budget (M =1.97 SD =0.85), most of them did not complete on time (M = 1.99 SD = 0.86) and stakeholder satisfaction with completion of those projects within Kiharu Constituency was low (M =2.01SD =0.86). The results were in agreement with those by Franks and Curswoth, (2003) that established a strong positive correlation between manager's capacity and project performance.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter concludes the study by summarizing the findings in line with the study's objectives. The objectives sought to determine the influence of team's project management skills on completion of school development projects in Kiharu-based secondary schools, establishing the influence of team's technical expert skills on completion of those projects and the influence of M&E skills on completion of those projects as well.

5.2 Summary Of Findings

5.2.1 Management team's Project Management Skills

As regards the first objective, the study established a strong positive correlation between team's project management skills and completion of school development projects with a correlation coefficient of 0.418 (p=0.000). The regression results showed that a unit increase or enhancement on Management team's project management skills would enhance timely completion of infrastructure development projects in Kiharu-based secondary schools by a factor of 0.582. The findings concur with those by Ambrosini, (2003) that show a strong positive correlation between project performance and managers strong management skills.

Descriptive results from the study revealed that not all the management teams of public secondary schools in Kiharu Constituency have management skills on school infrastructure development projects (mean= 4.12, SD=0.73), effective management of projects affects the speed of school infrastructure development projects' completion (mean= 4.24, SD=0.78), misappropriations of project funds by the executive team led to incompletion of school infrastructure development projects (mean= 4.07, SD=0.74) and that failure at theoretical level has notable effects on other stages of school infrastructure development projects (M= 4.25, SD=0.72). The above results concurs with the research findings by Oyalo and Bwisa, (2015) that show that lack of commitment among managers is able to affect the way other employees at lower levels perform their jobs.

Also the study revealed that poor knowledge of project management by the management teams paralyzed project completion (mean= 4.18, SD=0.78), poor budgeting for construction project elements by the Management team affects completion of construction project (mean= 4.00, SD=0.8), Management team's lack of project management skills has immobilized school infrastructure development projects (mean= 4.06, SD=0.76) and that poor financial management skill by the principal has halted school infrastructure development projects completion (mean= 4.25, SD=0.5). The above results support the research findings by Muchoki, and Namusonge, (2015) that principals are play vital role in planning, managing, implementing and maintaining projects within schools by providing the relevant resources.

5.2.2 Management Team's Technical Expert

The study established that management team's technical expertise was a significant predictor on timely completion of school infrastructure development projects with a strong positive correlation of 0.481 (p=0.000). Further enhancement on management team's technical expertise would enhance timely completion of school infrastructure development projects (a unit increase in technical expertise of principals increased completion of projects by a factor of 0.549 from the regression analysis). These results agree with those by Robbins and Coulter (2012) that show that conceptually skilled managers are able to help organizations achieve their goals by tweaking strategies.

Results also showed that technical expertise is important in the completion of school infrastructure development projects (mean= 4.27, SD=0.45), most management teams are not willing to incorporate technical experts in the school infrastructure development projects (mean= 4.15, SD=0.7), lack of technical expertise by the teams has affected the completion of school infrastructure development projects (mean= 4.24, SD=0.61), most of the schools have set aside team of experts from the principal who monitor the school projects (mean= 4.22, SD=0.69) and that professionally trained staff and a budget are a key requirement in completion of school infrastructure development projects (mean= 4.12, SD=0.69). The above results concur with those by Gray and Larson, (2018) that show that project success depend on manager's ability to lead and help team towards a completing common goal of the objectives.

Further the study established that, many of school infrastructure development projects fail to complete due to lack of technical expertise by the management team (mean= 4.21, SD=0.71), most schools comprise of principals who had less technical skilled personnel (mean= 4.19, SD=0.63), principals need the necessary technical expertise in project management (mean= 4.18, SD=0.69), and that technical expertise is vital in capacity building because it facilitates interaction and project management (mean= 4.07, SD=0.84). The above results support the research findings by Ireland (2004) that show that managers need conceptual, human and technical skills.

5.2.3 Management team's Monitoring and Evaluation Skills

For the third objective, the study established that management team's M&E skills influenced completion of school development projects within public secondary schools and that the relationship was significant at with p=0.000. Further enhancement on Management team's monitoring and evaluation skills would enhance timely completion of school infrastructure development projects with a factor of 0.474 as obtained in the regression analysis. The above results concur with the research findings by Ballard (2016) that show that strong M&E processes help those tasked with executing projects in making informed decisions I matters related to utilization of objective evidence, program effectiveness and operation including service delivery.

The results also revealed that monitoring minimized time lags and cost overruns (mean= 4.00, SD=0.78), monitoring enabled staff members and managers in evaluating whether projects progressed within pre-determined constraints (mean= 4.45, SD=0.50), M&E was regarded as vital element in the completion of school infrastructure development projects (M= 4.21, SD=0.59) and that most of the school management teams are not well versed with the monitoring and evaluation skills (mean= 4.04, SD=0.71). The above results support the research findings by Buertey, Adjei–Kumi and Amoah (2011) Monitoring and evaluation skills assists project managers in improving the implementation of projects and achievement of results.

Furthermore, the results show that M&E is vital because it ensures that products are of high quality and projects are delivered on time (M= 4.49, SD=0.50), most of the school infrastructure development projects have failed to complete because they lacked M&E procedures among the management teams (mean= 4.24, SD=0.55), M&E are vital at all stages of project

implementation (M= 4.18, SD=0.60), most of the school infrastructure development projects do not have monitoring and evaluation procedures (mean= 4.45, SD=0.50) and that there lacks clear M&E for the school infrastructure development projects (mean= 4.12, SD=0.71). The above results are in agreement with those by Ochieng and Tubey (2013) that show that about 40% of projects in the country fail because they lack M&E strategies.

5.3 Conclusions

From the above findings, the study concludes that team's project management skills have considerable influence on completion of school development projects in Kiharu-based secondary schools. Despite the imperativeness of these skills, it is however regrettable that most of the principals, BOM, PA and CDF official managing public secondary schools in Kiharu Constituency, had never attended project management training. This consequently led to poor management on project resources, compromise on quality standards, longer implementation period and unnecessary cost overruns.

The study concludes that Management team's technical expert skills have a significant influence on timely completion of school development projects within the study area. Most of school Management teams in Kiharu were not equipped with the right technical skills linked to project completion, professionally trained staff and a budget are a key requirement in project completion and that lack of technical expertise by the Management teams has affected the completion of school infrastructure development projects.

In the light of the above, the study concludes that team's M&E skills have considerable influence on completion of CDF sponsored projects in Kiharu-based secondary schools. Monitoring has been identified as minimizing time lags and cost overruns. In addition, most of principals were found to be knowledgeable about issues related to M&E processes within projects and management of school projects.

5.4 Recommendation

The CDF office should to ensure that the School Principals, Members of BOM and the CDF Chairperson are trained on managerial skills since it was seen to influence the completion of school infrastructure development projects. The secondary school Management teams should be trained on project management skills and financial accounting and auditing to boost their

technical competence. This type of training should be conducted regularly so that emerging issues can be addressed adequately.

That the Ministry of Education should train school principals, BOM and the PA on technical expertise skills and if not, the CDF should ensure that there is technical expertise for any project that is rolled out.

That school Management teams should be empowered by offering them courses in monitoring and evaluation.

5.5 Suggestions for Further Research

The factors investigated in the study were only three namely Management team's project management skills, technical expertise and M&E. A similar study on other factors affecting timely completion of CDF construction projects in national secondary schools should be undertaken. Further, a longitudinal study should be undertaken on other factors influencing completion of the CDF construction projects in other parts of the country should be conducted to validate and add weight to the findings made in this particular study.

REFERENCES

Aden (2015).*Participatory Monitoring and Evaluation of Community Projects. Community Based Project Monitoring, Qualitative Impact Assessment and People Friendly Evaluation Methods*. Journal, August 2008 edition Vol.6.

ADRA (2007).*Monitoring and Evaluation Manual Prepared for ADRA International* Prepared by TANGO International, Inc.

Ahmed Ahsan, B., & Gunawan, D. (2010).Construction client multi-projects–A complex adaptive systems perspective. *International Journal of Project Management, 27(1),* 72-79.

Aibinu, A.A and Jagboro, G.O (2012). The effects of construction delays on project delivery in Nigerian construction industry, *International Journal of Project Management* Vol 20

Al-Momani, A. (2010). Construction Delay: A Quantitative Analysis, *International Journal of Project Management, 18:*51–59

Al-Tmeemy, S. M. H. M. (2018). Future criteria for success of building projects in Malaysia. *International Journal of Project Management, 29(3*), 337-348.

Arditi, D. and Mochtar, K. (2010) Trends in Productivity Improvement in the US Construction Industry.*Construction Management and Economics*, 18, 15-27.

Assaf, S.A. and Al-hejji, S. (2016) Causes of Delay in Large Construction Projects. *International Journal of Project Management, 24(7*), 349-357.

Assudani, R. & Kloppenborg, T. J. (2014).Managing Stakeholders for Project Management Success: An Emergent Model of Stakeholders. Journal of General Management, 35(3), 67–80. https://doi.org/10.1177/030630701003500305

Atencio, M. (2016).*A critical success factors framework that includes leadership competencies for successful delivery of projects*, PhD thesis, University of Salford.

Awiti V. P, (2018). An assessment of the use and management of development funds: the Institute of social studies: The Hague, Netherlands

Ayarkwa, J., Ayirebi, D., and Amoah, P. (2010).Barriers to implementation of EMS in construction industry in Ghana. In Proceedings: Fourth *International Conference on Scientific and Industrial Studies*, April 14 – 15, 2010, Abuja, Nigeria.

Ballard et al. (2016).Management of Behavioral and Psychological Symptoms in People Projects Management.*ttps://www.nhqualitycampaign.org/files/CliveBallardPresentation.pdf*

Bisschoff, T. (2013).*Financial School Management Explained*. Pretoria: Kagiso Tertiary.

Buertey, J. T. I, Adjei–Kumi, T. and Amoah, P (2011).Construction cash flow prediction model in Ghana: A case study of the District Assembly Common Funded Project. *PENTVARS Journal, Vol. 5*, No. 2, pp. 87 – 101.

Bush, T. (2013). *Educational leadership and management: Theory, policy and practice*, South African Journal of Education.

Cao, S. (2017).An empirical analysis of project manager's competency, empowerment and learning in agent construction management system in China. The University of Hong Kong, Pokfulam Road, Hong Kong SAR. https://doi.org/10.5353/th_b4717976

Ceric, A. (2012). The Principal-Agent Theory and the Role of Project Managers in Construction: Guidelines for Future Research. Retrieved October 24, 2018, from https://www.irb.fraunhofer.de/CIBlibrary/search-quick-result- ist.jsp?

Chan D.W.M, & Kumaraswamy M.M (2013) A Study of Factors Affecting Construction Durations in Hong Kong; Construction Management & Economics, E& FS Spon

Chepkirui, G. & Gladys. (2016). Factors affecting the performance of CDF development projects in Kenya: A case study of Chepalungu Constituency in Bomet County. Retrieved from http://41.89.101.166:8080/xmlui/handle/123456789/4280

Chesiyna, P. K., & Wanyoike, D. (2016). Determinants of Effective Implementation of Constituency Development Fund Projects in Baringo Central Constituency, Kenya, 4(4), 31–42.

Chikati (2009). Project Cycle Management. An Integrated Approach and Logical Framework.

Chin, C. M. M. (2012). Transferring projects to their final users: the effect of planning and preparations for commissioning on project success. *International Journal of Project Management, 23*, 257–265.

Cooke-Davies, T. (2012).The "Real" Success Factors on Projects. *International Journal of Project Management, 20*(3), 185-190.

Crawford P. & Bryce P. (2015). Project Monitoring and Evaluation: A method of enhancing the efficiency and effectiveness of aid project implementation. *International Journal of Project Management, 21*(5): 363 – 37319.

Daft, R. L. (2012). New era of management (International Edition). Mason, OH: South-Western, Cengage Learning.

Donaldson, S. &Lipsey, M. (2006).*Roles for Theory in Contemporary Evaluation Practice: Developing Practical Knowledge, Evaluating Social Programs and Problems*

Enshassi, A., Mohamed, S. & Abushaban, S. (2009). Factors affecting the Performance of Construction Projects in the Gaza Strip, *Journal of Civil engineering and Management, 15*(3): 269-280.

Estrella, M. (2017). Learning from change: Issues and experiences in participatory monitoring and evaluation. Ottawa, CA: *International Development Research Center.*

Field, M. and Ketter (2013). Project management London, Thomson learning, Holbork house

Gamage, D.T. and Zooksomchutra P (2014), Decentralization and School Based Management in Thailand International Review of Education Vol. 50 POP 259- 305.

Government of Kenya (2003). Constituency Development Fund Act 2003, Nairobi: Government Printer.

Gray and Larson (2018), Project management, the managerial project 4th Edition Singapore Macrewhill

Harris, J.O and MacCaffer, R. (2014) Modern Construction Management, Iowa State Press, Fifth Edition, Blackwell Publishing Company, Ames, Iowa, USA. Ireland, L. (2004). Project manager: The competent professional. Available at: http://xa.yimg.com/kq/groups/1554571/55793773/name/Ireland- PMCompetency.pdf

Harry, R. (2013). *Project Management Planning and Control Techniques*. 4th edition, New Delhi India: Pearson Education. - 354

Hettmut, A. (2011). A practical use of key success factors to improve the effectiveness of project management. *International Journal of Project Management, 17(3*), 139 – 145.

Hope, J, and P. Richards.(2016). Project Management and Poverty Alleviation. London: Intermediate Technology Publication

Ika A., Lavagnon A., AmadouDiallo b, Denis Thuillier (2011) *Critical success factors for World Bank projects*: An empirical investigation International Journal of Project Management pg105- 106 Ste Catherine Est, C.P. 6192, Montréal, Québec, Canada H3C 4R2

Ikiugu, J. K. (2006). Investigations into board of Governors competence in financial management in secondary schools in Abathuguci Division, Meru District. Unpublished M.Ed. Thesis, Kenyatta University.

Ireland, L. (2014). *The Anatomy of Major Projects: A Study of the Reality of Project Management*. New York: John Wiley and Sons

Ireland, V. (2014). The Role of Managerial Actions in the Cost, Time and Quality Performance of High-Rise Commercial Building Projects", Construction Management and Economics, 3, 59-87.

Israel, M. (2015).*Research Ethics and Integrity for Social Scientists: Beyond Regulatory Compliance*. London: SAGE Publications Ltd

Iyer, K.C. and Jha, K.N. (2013) Critical Determinants of Project Coordination. *International Journal of Project Management, 24*(4), 314-322.

Jennifer R. McConville (2016). *Applying Life Cycle Thinking to International Water and Sanitation Development Projects:* An Assessment Tool for Project Managers in Sustainable Development work

Juliah, G. (2016). Drivers of Effective Project Performance in National Government Constituency Development Funded Projects in Kiambu. International Journal; of Human and Business Administration, 2(2), 22–40.

Juma, N. (2015). Factors Influencing Implementation Of Constituency Development Fund Projects In Public Secondary Schools In KimininiConstituency, Trans- Nzoia County. International Journal of Technology Enhancements and Emerging Engineering Research, 3(05), 44–55.

Kagiri, D and Wainaina, G. (2013).*Construction delays in Florida: An Empirical study. Time and cost overruns in power projects in Kenya: A case study of Kenya Electricity Generating Company Ltd. B*

Kamau, J.K. (2015). Financial Management in Kenya Secondary Schools: Problems and Issues. Unpublished. Med. Thesis .Kenyatta University. Nairobi.

Karl, M. (2017).*Monitoring and evaluation stakeholder participation in Agriculture and rural development projects. A literature review. Sustainable Development (SD) Food and Agriculture Foundation of the United Nations (FAO).Available at* http//www.fao.org./sd/PPdirect/PPre0074.htm

Kelechukwu, N. (2011). Analysis of administrative roles of principals in private secondary schools in Aba education zone of AbiahState. *Continental Journal of Education Research, 4*(1), 18 – 27.

Kenya Government (2016), Schools Infrastructure Improvement Management. Handbook, Nairobi Government Printer.

Kerongo, F. M., Mutua, N. M., &Musomba, K. F. (2013). Factors affecting the effectiveness of monitoring and evaluation of constituency development fund projects in Changamwe Constituency, Kenya. Retrieved from http://ir.ttu.ac.ke:8080/xmlui/handle/123456789/56

Kibebe W. L &Mwirigi W. P., (2014) .Selected Factors Influencing Effective Implementation of Constituency Development Fund (CDF) Projects in Kimilili Constituency, Bungoma County, Kenya. IJSR India

Kibebe, L. W. &Mwirigi, P. W. (2014).Selected Factors Influencing Effective Implementation of Constituency Development Fund (CDF) Projects in Kimilili Constituency, Bungoma County, Kenya. International Journal of Science and Research, 3(1). Retrieved from www.ijsr.net

Kikwasi, S. (2012). How to Evaluate Performance of Government Agency: A manual for Practitioners. World Bank.

Kimando, (2011).Factors influencing board of management competence in financial management in public secondary schools in Nakuru-North District, Kenya. Unpublished Med Project. University of Nairobi.

Kimathi, C. K. (2017), Challenges influencing implementation of CDF Project in Kenya. A case of Imenti Constituency Unpublished MA in project planning and management. University of Nairobi.

Kimenyi, M.S. (2015), Efficiency and Efficiency of Kenyans Constituency Development Fund. Theory and Evidence. Working Paper 2005.Pg. 42.

Kiprono, K., Kemei, C. &Rotich, J. (2015). Determinants of completion time of projects funded from constituency development fund in Kenya: a survey of projects in Ainamoi constituency. European Journal of Business and Management, 7(2), 172–183.

Kothari, C. (2007). *Research Methodology: Methods and Techniques*. New Delhi: New Age International Publishers.

Kruger, A, G (2015). Efficient financial management, in: I van Deventer, A.G Kruger (Eds): An educators guide to school management skills. Pretoria: van schaik, pp.233-245.

Kumar, R. K. & Prasad, G. V. B. (2013).What challenges are to be prioritized by the project manager to gain stake holders or customer's confidence? *International Journal of Science, Engineering and Technology Research, 2*(1), 96 – 102.

Kwak D.I., (2015). Leadership and the Project Management Body of Knowledge, *International Journal of Project Management, 13*, 83-88 (1995)

Laudon, K., &Laudon, J. (2015). "Management Information Systems: Managing the Digital Firm." Eleventh Edition (11 Ed.). New Jersey: Prentice Hall

Lumiti, P. A. (2015), the impact of constituency development fund on development. A case of Magoro Constituency in Teso District Unpublished executive MBA research project, University of Nairobi.

Mantel, J. M. & Meredith J. R (2015), Project management, a managerial approach (5th Edition).USA, John Wiley & Sons.

Ministry of Education (2016).*National plans of education*. Nairobi. Government of Kenya press.

Mohamed, A. M. &Otieno, M. M. (2017). Target beneficiary participation and its impact on the implementation of CDF funded projects: a case study of Lamu East Constituency. Journal of Entrepreneurship, 2(1), 73–90. Retrieved from www.carijournals.org

Mohoney, T. (1988), Governing Schools: Powers Issues and Practise: London. Macmillan. Education Ltd.

Montaño, Arce&Louman. (2016). *Factors influencing implementation of monitoring and evaluation processes on donor funded projects; a case of gruppo per le relazionitransculturali* -grt project in Nairobi, Kenya.pdf

Muchoki, L. W. &Namusonge, G. (2015). Factors influencing stakeholder participation on constituency development funds factors influencing stakeholder participation on constituency development funds.

Muhia, R. N. (2016). *Participatory Monitoring and Evaluation (PM&E) Training in* Musera G, Mugasia E.&Achoka J.K (2012). *Perceptions of secondary school teachers on the principals' leadership styles in school management in Kakamega district, Kenya.*

Musomba, K.S., Kerongo, F.M., Mutua, N.M., &Kilika, S. (2013). *Factors Influencing the Effectiveness of Monitoring and Evaluation of Constituency Development Fund (CDF) in Changamwe Constituency, Keny*a. Journal of International Academic Research for Multidisciplinary, 1(8): 2320-5083

Mwakio, L. & Derrick, C. (2015). Community participation and successful implementation of constituency development fund projects in Kenya. Scholars Journal of Arts, Humanities and Social Sciences, 3(1A), 8–12.

Nabris, M. (2012).*Monitoring and Evaluating Social Programs in Developing Countries*: A Handbook for Policymakers, Managers and Researchers. Economic Development Institute of The World Bank

Ombati, A. (2013). The role of community based organizations in the development of rural a case study of community based organizations in KitutuMasaba division, Kisiicounty. St. Paul's University, Kenya (MBA Unpublished project Report).

Ombati, T. N, (2013) Factors influencing timely completion of infrastructure projects in public secondary schools in Kenya: a case of KitutuMasaba constituency, Kenya, unpublished thesis, university of Nairobi

Onderi, H. &Makori, A. (2013).Secondary school principals in Nyamira County in Kenya Issues and challenges. *Educational Research International, 1*(1), 67 – 90.

Otieno, K., O., Apida, M., Eric, O., N., &Graca, A. (2017).Factors influencing fire stations response to disasters: A case of Kenya. *International Journal of Disaster Management and Fire Engineering*, 3(2), 21 – 67

Oyalo, N., &Bwisa, H. (2015). Factors that influence the completion of CDF funded projects in Kangundo constituency. The Journal of Management, 2 (49), 21–36.

Ponpeng, J. and Liston, J. (2013). Contractor Ability Criteria: A Review from the Thai Construction Industry. Journal of Construction Management and Economics, 21, 267-282.

Rossi, P. H., Lipsey, M. W., and Freeman, H. E. (2014).*Evaluation: A systematic approach* (7th Edition). Thousand Oaks, CA: Sage.

Saunders, M., Lewis, P. &Thornhill, A. (2007).Research methods for business students, 4th edition, Prentice Hall.

Sunindijo, S. (2015).*Who or what decides how stakeholders are optimally engaged by governance networks delivering public outcomes*? Australian Centre for Business Research; QUT Business School; School of Management.

Uitto, J. A. (2010). Multi-country co-operation around shared waters: Role of Monitoring and Evaluation. *Global Environmental Change, 14(1)*: 5 – 14

Wanjiku, M. (2015).Monitoring and Evaluation: Factors Influencing the Performance of Road Infrastructure Projects: A Case Study of Nyandarua County, Kenya.

William, J. (2006). *World Bank Research Observer Vol 16* no one pp 109-124.

World Bank (2011).*Project Performance: project performance issues*. Report V. Washington. USA.

Yong, Nur Emma Mustaffa, (2012). Analysis of factors critical to construction project success in Malaysia, Engineering, *Construction and Architectural Management, Vol. 19*Iss: 5, pp.543 556

APPENDICES

APPENDIX I: LETTER OF INTRODUCTION

Beatrice Wachira
School Open Distance and e -Learning
University of Nairobi
7th June 2019

The Principal
_____Sec. School.

Dear Sir / Madam,

RE: PERMISSION TO COLLECT DATA

I am a postgraduate student at the University of Nairobi. I am currently conducting research as part of my final year of thesis project. This research is a requirement of the master's programme. My study is on "**Influence of Management team's skills on completion of CDF development projects in public secondary schools in Kiharu Constituency, Murang'a County**".Your project has been chosen to take part in this study. I humbly request your office to grant the study any assistance that will make the study a success.

Yours faithfully,

Beatrice Wachira
REG. NO L50/17382/2018

APPENDIX II: QUESTIONNAIRE FOR PRINCIPAL

This questionnaire is designed to collect information on "**Influence of management team's skills on completion of CDF development projects in public secondary schools in Kiharu Constituency, Murang'a County**. You are requested to participate in the study by answering to all questions in the questionnaire. All responses will be confidential and will be used by the researcher for academic purpose only. Please tick (√) where appropriate or fill in the required information.

Section A: Demographic Information

1. Indicate your gender? [ ] Male [ ] Female
2. Indicate your age bracket
   [ ] Below 30 years [ ] 31-40 years
   [ ] 41–50 years [ ] 51 and above
3. What is your highest academic qualification?
   [ ] Diploma [ ] Degree
   [ ] Masters [ ] PHD
   Any other (specify)……
4. For how long have you served in this school as a principal?
   [ ] 0-1 year [ ] 1-2 years [ ] 3-4 years
   [ ] 5-10 years [ ] Over10 years
5. State the status of your school
   [ ] National School [ ] Extra-County school
   [ ] County School [ ] Sub-County school
6. Please indicate your school category
   [ ] Boys only [ ] Girls only
   [ ] Mixed boarding [ ] Mixed Day and Boarding
   [ ] Mixed Day
7. Indicate the number of students in your school?
   Below 200 [ ]
   201 – 500 [ ]
   501 – 1000 [ ]
   Above 1000 [ ]

8. How many development projects have been completed in the last five years?

[ ] 0-1 [ ] 1-3 [ ] 3-5 [ ] Morethan 5

8b.If yes specifies the type of project?

……

……

8c.Was the project completed on schedule?

Yes [ ] No [ ]

8d.Who was in charge of the project

The principal [ ] The BOM [ ] The PA [ ] CDF [ ]

9. Have you been trained in project management?

Yes [ ] No [ ]

Section B: Principal's project management skills and completion of school development projects

In a scale of 1 to 5 kindly indicate the extent to which you agree or disagree with the following statements concerning principal's project management skills and project completion (scale 1= strongly disagree, 3=Disagree, 3= Moderate 4= Agree ad 5 = Strongly Agree)

Sn	**Statement**	**1**	**2**	**3**	**4**	**5**
1	Lack of project management skills among principals has crippled school infrastructure development projects					
2	Poor knowledge of project management by the principal cripple project completion					
3	Failure at theoretical level affects the successive stages of the school infrastructure development projects					
4	Effectiveness in management affects the speed of school infrastructure development projects completion					
5	Poor financial management skill by the principal has crippled school infrastructure development projects completion					

6	Misappropriations of project funds by the principal lead to incompletion of school infrastructure development projects					
7	Poor procurement process has affected school infrastructure development projects completion					
8	Poor budgeting for construction project elements by the principal affects completion of construction project					
9	Not all the principals have management skills on school infrastructure development projects					
10	Inadequate site supervision by the principal causes delay in completing school development projects.					

Section C: Principal's technical expertise and completion of school development projects

In a scale of 1 to 5 kindly, indicate the extent to which you agree or disagree with the following statements concerning principal's technical expert and project completion. (Scale 1= strongly disagree, 3=Disagree, 3= Moderate 4= Agree ad 5 = Strongly Agree)

Sn	**Statement**	**1**	**2**	**3**	**4**	**5**
1	Many of school infrastructure development projects fail to complete due to lack of technical expertise by the principal					
2	Lack of technical expert by the principal has affected the completion of school infrastructure development projects					
3	Technical expert is vital in capacity building because it facilitates interaction and project management					
4	Professionally trained staff and a budget are a key requirement in completion of school infrastructure development projects					
5	Most of the schools have a set aside team of experts from the principal who monitor the school projects					
6	Most schools comprise of principals who have less technical skilled personnel.					
7	Technical expertise is important in the completion of school					

	infrastructure development projects					
8	Most principals are equipped with the right technical skills linked to project completion					
9	Principals need the necessary technical expertise in project management					
10	Most principals are not willing to incorporate technical experts in the their school infrastructure development projects					

Section D Principal's M&E skills and completion of school infrastructure development projects

In a scale of 1 to 5 kindly indicate the extent to which you agree or disagree with the following statements concerning principal's M&E skills and completion of school infrastructure development projects. (Scale 1= strongly disagree, 3=Disagree, 3= Moderate 4= Agree ad 5 = Strongly Agree)

Sn	Statement	1	2	3	4	5
1	Monitoring and evaluation during construction is critical to ensure quality products and timely delivery of project					
2	There has been clear monitoring and evaluation for the school infrastructure development projects					
3	Most of the school infrastructure development projects have failed to complete due to lack of clear monitoring and evaluation procedures among the principals					
4	Most of the school infrastructure development projects do not have monitoring and evaluation procedures					
5	Monitoring and evaluation is regarded as a core tool when it comes to the completion of school infrastructure development projects					
6	Monitoring supports both the project managers and staff in understanding whether the projects are progressing as predetermined					
7	Significant relationship exists between the monitoring and evaluation practices and completion of school infrastructure development projects					
8	Most of the principals are not well versed with the Monitoring and evaluation of projects					
9	Monitoring and evaluation are particularly important practices to any project stage					
10	Monitoring offers the background for minimising time along with cost overruns					

Section F: completion of school development projects

In a scale of 1 to 5 kindly indicate the extent to which you agree or disagree with the following related to project success (scale 1= strongly disagree, 3=Disagree, 3= Moderate 4= Agree ad 5 = Strongly Agree)

Statement	**1**	**2**	**3**	**4**	**5**
Completion within the stipulated time					
Completion within the stipulated budget					
Adherence to Quality standard					
Stakeholder Satisfaction					
Performance to Business Case					

END

THANK YOU FOR YOUR TIME

APPENDIX III: QUESTIONNAIRE FOR THE BOM OFFICIALS

This questionnaire is designed to collect information on "Influence of management team's skills on completion of CDF development projects in public secondary schools in Kiharu Constituency, Murang'a County". You are requested to participate in the study by responding to all questions in the questionnaire. All responses will be confidential and will be used by the researcher for academic purpose only. Please tick (√) where appropriate or fill in the required information.

Section A: Demographic Information

1. Indicate your gender? [ ] Male [ ] Female
2. Indicate your age bracket

   [ ] Below 30 years [ ] 31-40 years

   [ ] 41–50 years [ ] 51 and above
3. What is your highest academic qualification?

   [ ] Diploma [ ] Degree

   [ ] Masters [ ] PHD

   Any other (specify).....
4. For how long have you served as BOM in this school?

   [ ] 0-1 year [ ] 1-2 years

   [ ] 3-4 years [ ] 5-10 years

5. How many development projects have been completed in the last five years?

   [ ] 0-1 [ ] 1-3 [ ] 3-5 [ ] Morethan 5

8b.If yes specify the type of project.

.....

.....

8c.Was the project completed on schedule?

Yes [ ] No [ ]

8d.Who was in charge of the project

The principal [ ] The BOM [ ] The PA [ ] CDF [ ]

Section B: Principal's project management skills and completion of school development projects

In a scale of 1 to 5 kindly, indicate the extent to which you agree or disagree with the following statements relating to principal's project management skills and project completion. (Scale 1= strongly disagree, 3=Disagree, 3= Moderate 4= Agree ad 5 = Strongly Agree)

Sn	Statement	1	2	3	4	5
1	Lack of project management skills among principals has crippled school infrastructure development projects					
2	Poor knowledge of project management by the principal cripple project completion					
3	Failure at theoretical planning affects other stages of project implementation					
4	Effectiveness in management affects the speed of school infrastructure development projects completion					
5	Poor financial management skill by the principal has crippled school infrastructure development projects completion					
6	Misappropriations of project funds by the principal lead to incompletion of school infrastructure development projects					
7	Poor procurement process has affected school infrastructure development projects completion					
8	Poor budgeting for construction project elements by the principal affects completion of construction project					
9	Not all the principals have management skills on school infrastructure development projects					
10	Inadequate site supervision by the principal is cause of delay in completing school development projects.					

Section C: Principal's technical expertise and completion of school development projects

In a scale of 1 to 5 kindly, indicate the extent to which you agree or disagree with the following statements relating to principal's technical expert and project completion. (Scale 1= strongly disagree, 3=Disagree, 3= Moderate 4= Agree ad 5 = Strongly Agree)

Sn	Statement	1	2	3	4	5
1	Many of school infrastructure development projects fail to complete due to lack of technical expertise by the principal					
2	Lack of technical expert by the principal has affected the completion of school infrastructure development projects					
3	Technical expert is vital in capacity building because it facilitates interaction and project management					
4	Professionally trained staff and a budget are a key requirement in completion of school infrastructure development projects					
5	Most of the schools have a set aside team of experts from the principal who monitor the school projects					
6	Most schools comprise of principals who have less technical skilled personnel.					
7	Technical expertise is important in the completion of school infrastructure development projects					
8	Most principals are equipped with the right technical skills linked to project completion					
9	Principals need the necessary technical expertise in project management					
10	Most principals are not willing to incorporate technical experts in the their school infrastructure development projects					

Section D Principal's M&E skills and completion of school development projects

In a scale of 1 to 5, kindly indicate the extent to which you agree or disagree with the following statements relating to principal's M&E skills and project completion. (Scale 1= strongly disagree, 3=Disagree, 3= Moderate 4= Agree ad 5 = Strongly Agree)

Sn	Statement	1	2	3	4	5
1	M&E ensures that products are of high quality and projects are delivered on time.					
2	There has been clear M&E among school infrastructure development projects					
3	Most of the school infrastructure development projects fail to complete on time because they lack clear M&E procedures among the Management team					
4	Most of the school infrastructure development projects do not have M&E procedures					
5	M&E is a core tool in completion of school infrastructure development projects					
6	Monitoring enable staffs and managers to ensure that projects run as anticipated right from start					
7	There is notable link between M&E practices and completion of school infrastructure development projects					
8	Most of the Management team members are not well versed with M&E of projects					
9	M&E are vital in all stages of project management					
10	Monitoring minimizes time lag and cost overruns					

Section F: completion of school development projects

In a scale of 1 to 5, kindly indicate the extent to which you agree or disagree with the following statements related to project success (scale 1= strongly disagree, 3=Disagree, 3= Moderate 4= Agree ad 5 = Strongly Agree)

Statement	1	2	3	4	5
Completion within the stipulated time					
Completion within the stipulated budget					
Adherence to Quality standard					
Stakeholder Satisfaction					

Performance to Business Case					

END

THANK YOU FOR YOUR TIME

APPENDIX IV: INTERVIEW FOR THE CDF CHAIRPERSON

This interview is designed to collect information on "Influence of Principals' skills on completion of CDF development projects in public secondary schools in Kiharu Constituency, Murang'a County". You are requested to participate in the study by answering all the questions in the questionnaire. All responses will be confidential and will only be used by the researcher for academic purposes. Please tick (√) where appropriate or fill in the required information.

1. Explain how principal's project management skills influence completion of school infrastructure development projects (*probe on how the various managerial skills that the principals has and how that affects completion of projects*)
2. How do principal's technical expert skills influence completion of school infrastructure development projects? (*probe of the various technical expertise of the principals affect or influence completion of projects*)

3. How does principal's monitoring and evaluation skills on completion of school infrastructure development projects? (*probe on how monitoring and evaluation affects the principals in managing the school infrastructure projects*)

APPENDIX V:CDF FUNDED PROJECTS IN SCHOOL SCHOOLS IN KIHARU CONSTITUENCY

FINACIAL YEAR	Project name	Amount	Status
2014/15	Nyakihai secondary school	Completion of hall	Ongoing
2014/15	Gikindu secondary school	Completion of hall	Ongoing
2014/15	Kahuro secondary school	Rehabilitation of 4 classrooms &face-lifting of existing toilets	Complete
2014/15	Murarandia Day secondary school	Rehabilitation of 4 classrooms &face-lifting of existing toilets	Complete
2014/15	Koimbi Day Sec school	Rehabilitation of 2 classrooms	Complete
2015/16	Kiboi Day Secondary School	Completion of a school laboratory	Complete
2015/16	Kionjoini Secondary School	Rehabilitation of classrooms through lintel reinforcement walling roofing flooring painting	Complete
2015/16	Kahuro Secondary School	Construction of lab	Complete
2015/16	Gitweku Day Secondary School	Completion of a Lab	Ongoing
2015/16	Kahuhia Mixed Day Secondary School	Rehabilitation of classrooms through lintel reinforcement walling roofing flooring painting	Ongoing
2015/16	Murarandia Secondary School	Construction of one classroom and Boardroom lintel reinforcement walling roofing flooring	New

2017/18	Giathiya Secondary School	Construction of kitchen	Complete
2017/18	St. Paul's Boys Secondary School Gathuki-ini	Construction of dormitory	Complete
2017/18	Kionjoini Secondary School	Construction of dormitory	New
2017/18	Kianderi Day Secondary School	Construction of offices block	New
2017/18	Kagumo Secondary School	Completion of a classroom by construction of gambles, roofing, installation of doors & windows, plastering and finishes	New
2017/18	Kiangage Secondary School	Two classrooms completion by plastering, flooring, keys and finishes	New
2017/18	Gitaro Secondary School	Two classrooms completion by installations of doors and windows, veranda, plastering, flooring, keys and finishes	New
2017/18	Mukangu Secondary School	Construction of a classroom	New
2017/18	Gikindu Secondary School	Completion of dining hall by installation of doors & windows, plastering, flooring and finishes	New
2017/18	Karemaini Secondary School	Construction of a laboratory	New
2017/18	Gaitheri Secondary School	Renovation of 4 classrooms by plastering/ floor, roof, doors & windows repairs/painting & installation of gutters	Ongoing

2017/18	Kiumba Secondary School	Partitioning of existing hall to become classrooms and renovation by plastering/ floor, roof, doors & windows repairs/painting (Kshs. 250,000), and construction of a four door pit latrine (Kshs. 250,000)	New
2017/18	Gikandu Secondary School	Purchase of 120 lockers with chairs & teachers furniture	New
2018/19	Rurii Secondary School	Renovation of four classrooms by roof/ floor/ doors/ windows repairs/ plastering/ painting	Awaiting release of funds
2018/19	St. Michael Gathuki-ini	Renovation of four classrooms by roof/ floor/ doors/ windows repairs/ plastering/ painting	Awaiting release of funds
2018/19	Ititu Secondary School	Construction of a classroom	Awaiting release of funds
2018/19	Mwirua Secondary School	Renovation of existing block to become a classroom and offices by partitioning, roof/ floor/ doors/ windows repairs/ plastering/ painting (Kshs. 300,000), purchase of 30 lockers & chairs (Kshs. 150,000), purchase of teachers furniture – four sets of two drawer office table with chair (Kshs. 50,000) & construction of four door toilets (Kshs. 300,000)	Awaiting release of funds
2018/19	Gakurwe Secondary School	Construction of a block with one classroom, corridor and two offices (Kshs 900,000), Purchase of 30 lockers & chairs (Kshs. 150,000), four sets of two drawer office table with chair	Awaiting release of funds

		(Kshs. 50,000) & construction of four door toilets (Kshs. 300,000)	
2018/19	Mukumu Secondary School	Completion of storeyed computer lab/ offices resource centre by installation of doors/ windows/ plastering/ flooring and finishes	Awaiting release of funds
2018/19	Gatara Secondary School	Renovation of computer lab by roof/ floor/ doors/ windows repairs/ plastering/ painting (Kshs. 300,000), installation of benches/ lab installations/ equipment (Kshs. 400,000)	Awaiting release of funds
2018/19	Kaganda Secondary School		Awaiting release of funds
2018/19	Kahuhia Mixed Secondary School	Construction of a dining hall	Awaiting release of funds
2018/19	Gitaro Secondary School	Construction of a classroom (Kshs. 700,000) & purchase of 40 lockers with chairs	Awaiting release of funds
2018/19	Yamugwe secondary school	Completion of dining hall by roofing, doors, windows, plastering, flooring	Awaiting release of funds
2018/19	Kagaa Secondary School	Purchase of 80 lockers with chairs (Kshs. 400,000) and purchase of teachers furniture – eight sets of two drawer office table with chair (Kshs. 100,000)	Awaiting release of funds
2018/19	Kiboi Secondary School	Construction of a classroom	Awaiting release of

			funds
2018/19	Gikuu Secondary School	Renovation of existing block to become two classrooms and offices by partitioning, roof/ floor/ doors/ windows repairs/ plastering/ painting (Kshs. 600,000), purchase of 30 lockers & chairs (Kshs. 150,000) & purchase of teachers furniture – four sets of two drawer office table with chair (Kshs. 50,000)	Awaiting release of funds
2018/19	Gikuu Secondary School	Renovation of existing block to become two classrooms and offices by partitioning, roof/ floor/ doors/ windows repairs/ plastering/ painting (Kshs. 600,000), purchase of 30 lockers & chairs (Kshs. 150,000) & purchase of teachers furniture – four sets of two drawer office table with chair (Kshs. 50,000)	Awaiting release of funds
2018/19	Kambirwa Secondary School	Construction of a block with classroom, corridor and two offices (Kshs 900,000), Purchase of 30 lockers & chairs (Kshs. 150,000), Purchase of teachers furniture – four sets of two drawer office table with chair (Kshs. 50,000) & construction of four door toilets (Kshs. 300,000)	Awaiting release of funds
2018/19	Kiangochi Secondary School	Renovation of four classrooms by roof/ floor/ doors/ windows repairs/ plastering/ painting	Awaiting release of funds
2018/19	Kenneth Matiba Secondary School	Renovation of existing block to become two classrooms and offices by partitioning, roof/ floor/ doors/ windows repairs/ plastering/ painting (Kshs. 450,000), purchase of 40 lockers & chairs (Kshs. 200,000), purchase of teachers furniture -	Awaiting release of funds

		four sets of two drawer office table with chair (Kshs. 50,000) & construction of four door toilets (Kshs. 300,000)	