

**INFLUENCE OF PROJECT MANAGEMENT SKILLS ON  
IMPLEMENTATION OF CONSTITUENCY  
DEVELOPMENT FUND PROJECTS: A CASE OF PUBLIC  
SECONDARY SCHOOLS IN CHERANGANY  
CONSTITUENCY, KENYA.**

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

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## **DECLARATION**

This research project report is my original work and has not been submitted for any examination in this University or any other institution of higher learning.

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

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## **DEDICATION**

To my mum and Dad, Shem Lusesi Ingabo and Margaret Nawire Ingabo thank you for your relentless support.

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## **ACRONYMS AND ABBREVIATIONS**

<b>CDF</b>	Constituency Development Fund
<b>KSSHA</b>	Kenya Secondary School Heads Association
<b>MP</b>	Member of Parliament
<b>NACOSTI</b>	National Commission for Science, Technology and Innovation
<b>PMC</b>	Project Management Committee
<b>SPSS</b>	Statistical Package for Social Sciences
<b>SWOT</b>	Strengs, Weaknesses, Opportunities, Threats
<b>UNESCO</b>	United Nations Education, Scientific and Cultural Organization
<b>USA</b>	United States of America

## **ABSTRACT**

The main purpose of CDF is to foster rural development from the grass root level with school projects among the major focus. However, reports indicate that majority of CDF projects in Cherangany Constituency fail in the course of implementation among them being school projects. The aim of the study was to determine the influence of project management skills on implementation of CDF projects in Cherangany constituency. The study focused on establishing how cost management skills, team management, risk management and finally time management skills influences implementation of CDF projects with respect to cost, budget and quality. A descriptive survey research design was used. 59 principles made up the sample from a total population of 73 principals in Cherangany constituency. Purposive sampling was used to determine the respondents. Questionnaires were used to collect the data. Both descriptive and inferential statistics were used for data analysis. The study assumed a linear regression analysis at 5% significance level to ascertain the relationship of the variables. The findings indicated that cost management skills, team management skills and risk management skills had a positive and significant influence on implementation of CDF projects in public secondary schools in Cherangany Constituency. The study findings also revealed that time management skills had a positive but insignificant effect on the implementation of CDF projects in Cherangany Constituency. The study findings recommend that policy makers in both CDF and education sector should give avenues for school principals to refresh and sharpen their project management skills. There is need for project administrators to put focus on both intrinsic and financial motivation of the project teams. Curriculum developers and project sponsors should also educate project implementers on risk management skills and proper documentation for effective risk mitigation. Finally, project implementers should be trained on proper schedule development and control of activity durations for effective time management. Since the findings of this study only accounts for 41.6% of the variations of implementation of CDF projects in public secondary schools, this study recommends further investigation to be done on project management skills that have not been covered in this study like scope, quality and monitoring and evaluation management.

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background to the Study

Many countries have invested in education as a crucial pillar for development. Quality education translates to reduction in social inequalities and poverty and helps develop a more informed citizenry. According to UNESCO (2017), education is paramount in sustainable development as it helps empower people making them more skillful and proactive. The knowledge acquired also increases people's control over their own lives. Secondary education prepares learners for higher education and career choice (Bogonko, 1991). It is for this reason that many nations are heavily investing in their education sector. In Kenya, CDF was set apart as a kitty specifically to develop the country at constituency level. According to the CDF Act (2013), 25% of all the CDF allocation should be channeled to the education sector.

One way through which poor project management manifests in the Education sector is through failed, stalled or incomplete construction projects. The education sector heavily relies on head teachers as leaders and school manager (Bush & Oduro, 2006). According to The Commonwealth Secretariat (1996), schools need proper management development in order to realize quality and efficient delivery of services. In Kenya, according to the basic Education Act of 2013, school heads are the accounting officers, team leader for projects, policy implementations and initiators of policy proposals that might be considered by the ministry. These roles place headteachers at center stage in all projects implemented in the school they head, CDF included. However, most of these teachers lack the necessary project management skills for efficient project implementation. Many high school principals in Africa lack any formal training and leadership skills sufficient for the role of a school head (Bush & Oduro, 2006),

Emphasis has been put on project management in sectors other than education. According to Lugusa and Moronge (2016), there has been a great growth in project management discipline in engineering, construction and Information Technology. Project management has in the recent past become one of the key tools for managing efficiency and delivery of quality projects on time and within budget. According to Hwang and Ng (2013), there will be a total of 15.7 million positions requiring project management professionals between 2010 and 2020. These positions are spread

across several industries including oil and gas, manufacturing, Software development, business administration, insurance and finance. Statistics postulate that USA alone will have 6.5 million project management positions by 2020 (Chowdhury, 2013).

There is also a rapid increase in demand for proper project administration in Africa. This trend is due to the increase in the consumer market and the expansion of other sectors. As such, most sectors in Africa are looking into ways to maximize their resources and thus the incorporation of project management skills in their production processes. According to Botha (2013), project management is paramount in the achievement of African countries' development agenda including the service industry and infrastructure improvement. However Africa ranks lowest in the number of knowledgeable project management professionals (Zhang & Fan, 2013). According to Lim and Alum (1995), the level of project implementation in developing countries characteristic in many African countries is far much lower than that of developed countries.

In Kenya, project management is yet to obtain full acceptance and use as only few sectors have incorporated proper project management as a tool for efficiency in delivering their projects. Lugusa and Moronge (2016) established that almost all areas of the Kenyan economy lack project management skills a tendency well displayed by the poor performance of bank financed projects in Kenya. Abednego (2016) suggests that lack of a proper project management model for construction projects is the major cause for failed projects.

To achieve its vision 2030, Kenya has a devolved fund that works at the constituency level to aid in development from the grassroot level. However, the Auditor General's report (2010), displayed numerous occurrences of project stallment, delays and cost overruns across multiple constituencies. Further, Juma (2015) established that CDF committees should have people with project management skills. This will ensure transparency and accountability which are fundamental in project administration.

According to the Kenyan Basic Education Act (2013), school heads are the accounting officers, team leader for projects, policy implementations and initiators of policy proposals that might be considered by the ministry. These roles place headteachers at center stage in all projects implemented in the school they head, CDF included. However, most of these teachers lack the necessary project management skills for efficient project implementation.

Apart from practice over years, experiences with different projects, personal desire, reading and writing in their course of work, there has been a lot of capacity building and training for high school principals and education managers in Kenya. According to KSSHA (2018), one of the mandates of the body is to assist principals to give affective and well-directed service to their own schools and communities. KSSHA also helps expand principals' skills in school management through facilitating them to learn from each other. The body also organizes a yearly conference for capacity building and exchange of opinion on matters school administration in Kenya and beyond. Another organization that helps teachers improve their management skills is the Kenya Education Management Institute whose mandate is to enhance capacity of education managers achieved through consultancy services, continuous training and educational research.

## **1.2 Statement of the Problem**

Cherangany constituency had a total CDF allocation of Ksh.120, 013,783 for the financial year 2014/2015. According to the Auditor General's report (2015), this amount was sufficient to fund all the projects to completion within the given year. However, by the end of the said period, 29 out of 150 projects had not been completed, 18 of them being school projects which makes up 62% of all derailed projects. Of the 121 completed projects, 70 being school projects, 27 were carried forward from the previous financial year 2013/2014. The same report indicates that several school projects had failed including a building collapsing after completion.

For projects that meet quality standards to be achieved on budget and within the desired time frame, effective administration of projects is essential. According to Ling and Ma (2014), a good percentage of project administrators lack the essential skills and capacity to ensure delivery of projects within the required standards. In their study, Lugusa and Moronge (2016) established that lack of project management skills including cost, time, risk and quality management skills were major contributors to poor performance of bank financed projects in Kenya. They however suggested similar studies to be done on other projects and sectors to establish if their findings can be generalized.

Given the above tendencies in Cherangany CDF project implementations and the various opportunities available for teachers to learn and adopt project management skills there was need to ascertain how head teachers' skills in project management affects the delivery of CDF projects.

There was therefore a need to carry out a study to establish the influence of project management skills on the implementation of these CDF projects.

### **1.3 Purpose of the Study**

The purpose of this study was to investigate the influence of project management skills on implementation of constituency development fund projects: a case of public secondary schools in Cherangany constituency, Kenya.

### **1.4 Research Objectives**

- i. To determine how cost management skills influence the implementation of CDF projects in Public secondary schools in Cherangany Constituency.
- ii. To assess the extent to which team management skills influence the implementation of CDF projects in in Public secondary schools in Cherangany Constituency.
- iii. To examine how risk management skills, influence the implementation of CDF projects in in Public secondary schools in Cherangany Constituency.
- iv. To determine the extent to which time management skills influence the implementation of CDF projects in Public secondary schools in Cherangany Constituency.

### **1.5 Research Questions**

- i. How do cost management skills influence the implementation of CDF projects in public secondary schools in Cherangany Constituency?
- ii. To what extent do team management skills influence the implementation of CDF projects in public secondary schools in Cherangany Constituency?
- iii. How do risk management skills influence the implementation of CDF projects in public secondary schools in Cherangany Constituency?
- iv. To what extent do time management skills influence the implementation of CDF projects in public secondary schools in Cherangany Constituency?

### **1.6 Significance of the Study**

It is hoped that the study findings may be used by the ministry of education to revise the teachers' training curriculum to include project management units. It is also hoped that the findings in this research could help the CDF team to occasionally organize for training of CDF project

implementers on project management before, during and even after inception of projects. The research also aims at helping teachers understand the need for project management skills in their mandate as part of the school community.

### **1.7 Delimitation of the Study**

The study was conducted in Cherangany constituency which is in Trans Nzoia County, Kenya. The study involved public secondary school principals in Cherangany constituency and the researcher concentrated on the influence of project management skills of principals on implementation of CDF projects. The unit of observation was secondary schools' principals. The study focused on construction and infrastructure project and therefore bursaries, examination and other CDF projects are out of scope for this project.

### **1.8 Limitations of the Study**

The study was hindered by rough terrain, poor road networks and rains in some of the target areas. This was addressed by scheduling visits to reach inaccessible respondents in consideration to the prevailing weather conditions. Some of the head teachers were new in their respective station, hence the researcher used purposive sampling to ensure only valid respondents were used for the study.

### **1.9 Basic Assumptions of the Study**

In conducting the study, it was assumed that only public schools receive funding for projects from the CDF. It was also assumed that targeted principals were willing and available to give the needed information in honesty. It was also assumed that the principals sampled were credible and representative of the entire population to allow for generalization of the findings.

### **1.10 Definition of Significant Terms**

**Cost management skills:** These are principals' ability to manage project costs through planning and controlling the project budget and proper financial record keeping.

**Implementation of CDF projects:** Refers to the actual output or results of CDF projects in public schools



**Project Management Skills:** This refers to a set of abilities that principals need to have to enable them understand and apply the learning, apparatuses, and systems that are perceived as best practices for successful project administration.

**Project Team Management Skills:** Refers certain set of abilities that principals need to successfully form, coordinate and manage the people contracted to work on the project.

**Risk Management Skills:** Refers to the ability of project managers to forecast and evaluate the likelihood of an unpredictable occasion or condition that, in the event that it happens, has some impact on a project's objectives

**Time management Skills:** The ability of principals to manage project activities within the stipulated project period towards its timely completion.

### **1.11 Organization of the Study**

This study was organized into five chapters. Chapter one provided the research background, research objectives, significance of the study, scope, and the limitations encountered in the course of the study. The second chapter covered literature review, theoretical framework and conceptual framework, and the research gaps identified in the reviewed literature. Chapter three focused on the methodology which include research design, the target population, sampling procedure, data collection instruments and procedure, reliability and validity of the instrument, data analysis technique and ethical considerations. Chapter four comprised of data analysis and interpretation of research findings as per the objectives and finally chapter five had the summary, conclusions, recommendations and suggestions for further research.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews literature related to the study. This literature will include the following: an overview of CDF project implementation, project cost management skills, team management skills in project management, risk management skills and time management skills in projects. This chapter also includes the theoretical and conceptual framework that and finally the research gaps identified.

#### **2.1 Implementation of CDF Projects**

In an effort to ensure equitable development from the grass root, reduce regional imbalances and ensure resources are distributed across the country, the government of Kenya introduced the CDF kitty in 2003 as a way of helping each constituency realize their own important needs and address them (Auya & Oino, 2013). According to the CDF Act (2013), the fund is required to have funds not less than 2.5% of the national governments revenue yearly. Unlike other development funds that have numerous administrative layers, CDF funds are channeled directly to the local level. This gives the people on the ground power to make important decisions on their own welfare through establishing projects in the education and health sectors that have been a great challenge in local community development since independence (Auya & Oino, 2013). There are numerous issues arising in this form of decentralization and devolution approach taken by the Kenyan government. Physical structures, development principles and matters of service delivery and financing are some of the major issues underlying the decentralized economic management (Kibua & Mwabu, 2008). This calls for a need to understanding the pertinent issues underlying project success including the project management cycle to ensure rural development and value for the CDF kitty (Awiti, 2008; Juma 2015).

Despite the heavy financial investment in CDF projects in Kenya, there are still rampant occurrences of project failure and delays. There are cases of favoritism and exclusion of some communities from development projects. According to Okungu (2006), almost all CDF funding including schools, roads, health projects and even bursaries are diverted to people closely related

to the MP of the day. Occurrences where members of parliament give preference to those closely related to them or where they obtained greatest support during elections gives way for fraudulent activities and misappropriation of funds. Lack of knowledge in project management is another major setback in CDF success. Where the people on the ground lack the competence and skills in designing and implementing viable projects, then CDF becomes a big failure. According to Auya and Oino (2013), the incompetence of the executive committees was a major cause for projects taking long to complete and some not starting at all.

For projects in local communities to stand, then every participating unit has to accept and embrace the challenge of learning from the project beneficiaries (Warburton, 1994). Poor community participation is a major ingredient in CDF project failures (Juma, 2015). CDF fosters rural development and involving the local community is key in its success. The social structure of the society in the rural area coupled with the institutions on the ground are some of the determining agents of dealing with the problems in the Kenyan rural areas. These needs local people to play part in the development for sustainability. According to Moseley (2003), rural development initiatives should find ways of improving the lives of the local people with their own participation.

Other Studies show that people managing CDF projects are not conversant with the principles of project management. According to Ochieng and Tubey (2013), lack of project management skills and insufficient allocation of funds are major causes of project failure. Their study of Ainamoi constituency indicate that projects go beyond time since the amount of funds allocated is not sufficient to complete the project within one year. These sentiments are shared by Juma (2015) and Nakitare (2016) whose studies show that commitment from the project sponsor to release funds on time is a major success factor in ensuring project completion on schedule.

Project monitoring and evaluation is another major issue raised in CDF project implementations. According to Manei (2016), poor M &E procedures at the various project stages is key in CDF project failure. Ramkumar and Kidambi (2010) indicate that lack of information to on CDF projects impede any effort for M&E by independent bodies. Their research suggested that civil society should use a community based approach in contacting M&E and holding public officers accountable of how resources are utilized. Further, Nyaguthii and Oyugi (2013) indicate that community participation is key in CDF project implementation. Involving locals in identification, monitoring and implementation of projects increases their level of satisfaction. There is also need

to fully utilize the report obtained from M&E initiatives (Ochieng, Chepkuto, Tubey, & Kuto, 2012).

Juma (2015) denotes that community participation, proper fund management, needs analysis, political goodwill and effective M&E were key success factors. Nakitare (2016), adds that technical competence, monitoring and evaluation and economic risks were critical factors in CDF project's success. CDF is yet to actualize its primary purpose due to deviation from the primary objectives and replacement with overly political influence

Since its inception in 2003, CDF has been a great pillar in the education sector. According to Otieno, Nyadwaki, and Momanyi (2015), allocation of CDF bursaries to poor households was helpful in uplifting the lives of the community. CDF is also essential to the economic wellbeing of the society through provision of materials, labor supply, reduced expenditure on education and increased enrolled in schools at all levels. Research by Auya and Oino (2013) in North Mugirango constituency indicate that CDF has seen increase in number of schools in rural areas by 75%. This new schools and the initially existing ones has seen an increase in development like classrooms, toilets and laboratories courtesy of CDF. Majority of the population (61.5%) indicated that initially, classrooms in the public schools were not sufficient for the school population.

## **2.2 Project Cost Management Skills and CDF Project Implementation**

A successful project needs to complete within budget. Thus project cost management involves processes followed for the project to completed within the set budget limits. Manager needs to do proper resource planning, cost estimation, budgeting and controlling (Hwang & Ng, 2013). Cost management involves both direct costs and the costs that keep cropping up in the course of implementation(Wilson, 2015).

According to Hill (2008), in resource planning, the manager determines the resources needed including people, equipment and materials in their various quantities sufficient for the project activity. Working knowledge of work breakdown structure, access to historical information concerning the project, scope statement, resource pool description and the organizational policies are pertinent at this stage. The manager needs to ascertain the project justification and objectives at this stage. Through resource pooling, managers will establish the necessary resource groups to

achieve the objectives. The resource requirements which is the main output at this stage is essential for the other processes of cost management.

Managers also need to carry out a cost estimation in which the estimates of the resources identified is established. Cost estimation could be top down in which the manager uses actual costs of a previous project to estimate the costs. This is efficient when there is limited information about the project at hand. Historical information and expert judgements are handy in this type of estimation. Top down approach is cheaper than other techniques but less accurate and quite time consuming (Hill, 2008). In bottom up estimation, people doing the work estimate the costs based on the various activities (Buchner, 2015). Parametric estimation uses statistical relationships between various variables to estimate the costs.

Budget estimation involves the aggregation of the estimated costs of individual activities to develop a proper cost baseline. The cost baseline is composed of all authorized budgets minus the reserves set by management. Proper budgeting requires the use of cost estimates, work breakdown structure and project schedules. Lastly the manager needs a time control schedule to avoid cost overruns. Schedule controls help the project team to determine the the project schedule's current status, and manage the actual changes to the schedule baseline as they occur (Lugusa & Moronge, 2016). Outputs at this stage including revised cost estimates, budget updates, lessons learnt and estimates at completion are key in cost management.

Cost management across the globe has witnessed a lot of dynamism with the introduction of the internet, increase in the capabilities and processing powers of computers, knowledge management, public-private partnerships and private finance initiatives (Potts, 2008). Majority of projects especially in the UK have moved for contracting quantity surveyors on part time basis to involving them to the level of being their project managers. Projects are also involving the environmental and sustainability concerns in their project cost management as a way of getting the project within the specified time, predetermined budget and of the right quality and still conserving the environment around. The United Kingdom has seen a rapid growth in the construction cost consultancy firms providing consultancy services for all the cost management needs of construction endeavours.

In their study of Malaysia, Memon.et.al., (2010) found out that financial difficulties, poor site management, lack of supervision and experience in construction matters and improper planning

were the key factors contributing to failed projects. Poor scheduling has a direct positive relationship with poor site management which could lead to changes in scope and design and thus can overstretch the budget. According to this study, the trend is more severe in developing countries where some projects exceed the budget by up to 100%. The main factors that contribute to this massive cost extensions include low quality materials where there are no standards to follow while procuring required materials for the project. Similarly, lack of ability to prevent cost overruns due to poor cost management skills is another major hindrance to project success.

In Kenyan projects, studies show that poor cost management is a key factor in project failure (Ochieng and Tubey, 2013; Juma, 2015; Nakitare, 2016). Cases where project sponsors do not understand the need to release the funds on time, embezzlement of funds and poor accounting are common among projects in Kenya. Loopholes in the CDF structure, poor accountability and the dual role of MPs as both the legislating and governing officers together with a lack of monitoring and evaluation makes CDF a brooding ground for corruption and private capital accumulation that leads to inefficiency and project failures (Awiti, 2008). Shair (2016) concludes that there are no proper monetary control abilities in government financed projects. Lugusa and Moronge (2015) established that most bank financed projects in Kenya in the past five years have experienced cost overruns and recommends improvement on cost management by focusing on project cost budgeting, project cost estimation and project cost.

The study by Mbaya and Masinde (2014), indicates poor investment in the implementation of construction projects in schools. Further, Chepkonga (2006) stresses that school heads need training in areas like accounting, budget preparations among other project management areas sentiments supported by Kilonzo (2007). Odhiambo (2005) adds that most teachers are promoted to the position of principals without first undergoing training of what the position holds. This study indicates that a lack of proper training in financial management affected how these school heads handled human resource, risks and even time which had a strong negative influence on the project budget in the long run. Similarly, Kimani (2013), found out that CDF funded projects have failed in their mandate of enhancing socio-economic development due to ineffectiveness in financial management, funds allocation and distribution failures.

### **2.3 Team Management Skills and CDF Project Implementation**

People are one of the most important resource to the success of any project. The success of any project largely depends on the people who participate in it. If the project lacks the right people or their roles are not clearly defined or understood then good management and a perfect organizational structure may be vain to project success (Prabhakar, 2008).

Effective projects comprise of people with different skills including technical, interpersonal, problem solving and organizational skills (Prabhakar, 2008). It is the project managers responsibility to transform a group of individuals with diverse interests, cultural upbringings and expertise into a single project venture. For a project team to work together well, there needs to be a clear goal that is common to all and that members are committed to. The project manager should create an environment that everyone is comfortable working in and a supportive work structure. Many of the project teams in the current world are characterized by global competition, high levels of uncertainty and people from different cultures. All of these characteristics require a concise understanding of human aspects in project management in order to encourage the team to meet the project objectives (Lee, 2016).

Project team formulation and coordination is a paramount step in achieving successful project. In his research, Zusch(2014) established that leadership was the top most ranked desired project management skill. Great leadership skills are essential for project managers to effectively communicate to stakeholders on all matters including project cost, time and budget. The success of a project depends on the managers ability to communicate effectively and form, coordinate and lead a team. If communication and leadership and in order to incorporate relevant changes in the course of the project receiving and processing feedback is essential for the project success (Sutterfield, Friday-Stroud, & Shivers-Blackwell, 2006). Darrington (2010) emphasized the need to diversify motivation from financial incentives basing more on intrinsic motivation that could lead to higher productivity. The study proposed that project implementers should focus more on instilling intrinsic motivation amongst their project teams alongside other incentives for higher chances of project success.

It is unrealistic to have a project team that can seamlessly work together harmoniously without conflicts from the start to the end of a project. When managing teams, the project manager should also be able to handle and solve conflicts. According to Newton (2015), proficient project

managers have the ability to discern the skills, competence and personalities of the team members. Through this the manager is able to identify the impact every member has on the project and also have a way of handling each in cases of misunderstanding. Managers can establish the interests and personalities of members through informal networking that will help develop strong relationships between them.

Anantatmula (2010) defined seven significant people-related project implementation factors that can act as enablers or barriers to project success: clarity in communication and the specific roles for each individual, knowledge about the specific expectations, the use of consistent processes, trust among involved parties support and management of outcomes. Yong and Mustaffa, (2012) assessed the important factors that affected the construction industry in Malaysia and found that the ability of the top management coupled with the level of their commitment to the venture and communication with the involved parties were key to success.

Project managers need to ensure proper flow and disposition of information (Hill, 2008). According to Zulch (2014), communication is the basic supporting pillar for all project processes. Project managers' communication skill greatly influences the other supporting structures of the project. Communication is needed to pass across important information on cost, scope, time and even quality. Project managers therefore need to put into place processes that will enhance the acquisition, interpretation and dissemination of relevant information to all the relevant parties. Project communication helps reassure stakeholders that all is on course, retain their support and eliminate any possible surprises (Newton, 2015).

Project communication management requires appropriate communication planning. This is where the information needs of the stakeholders is identified, when it is needed and how it will be delivered (Hill, 2008). Gathering information requirements for all the relevant stakeholders is important in establishing the communication technology to be used for passing on the information. Some projects require information to be passed on immediately since the project success is depended on frequency of communication. Project managers can also establish the lines of communication to be used whether it will be formal or informal and the methods of managing the received information. When using the formal line of communication, the method could be top down or bottom up depending on the circumstance at hand. Managers also need to encourage upward information where subordinates an project team on the group pass information to the upper



levels. Managers will also need to communicate with others along the same level. The project team also communicates a lot with other people who are not part of the project (Tubbs & Moss, 2008). Stakeholders need to know whether resources are rightfully being utilized to achieve the mandate at hand. Performance reporting involves status reporting where the manager expresses where the project stands at the moment. With progress reporting, the manager describes what the project team has achieved while forecasting gives a prediction of future project status and progress. According to Hill (2008), performance reporting should provide relevant information on all the project implementation parameters of scope, cost, quality and schedule. In his survey of communication in the construction industry, Zusch(2014), established that the most common method of communication was written and oral. However, electronic communication was found to be the most effective. However, Zusch still urges that electronic communication is still written because one can refer to it later.

There is a probability of distortion of information or occurrences where people only release information that will protect them but does not reflect the real position or occurrences on the ground. According to Newton (2015), overcommunication results in information overload, poor understanding and misinterpretation. This directly affects the overall delivery of the project negatively.

According to Loosemore, Dainty, and Lingard (2003), the UK construction industry has embarked on improving its human resource management performance in a quest to improve its overall efficiency and effectiveness in cost management. The UK government has recommended improving the team involved in the projects as a pillar to strengthen its business and management practices. In their view, it is difficult to separate the success of a project or a business venture from the people working on it. Putting team management at center stage will help release the productive potential of the construction industry's workforce. Project managers should understand the strong link between performance of their workforce and project implementation.

In Iran, the study by AkhavanTabassi and AbuBakar (2009) shows lot's of barriers in the training and development of construction workers. According to this study, unskilled labor is one of the key causes of poor quality outputs in infrastructure projects. There is need for companies and government entities to adopt strategies that motivates project team members through continual training in order to increase the quality of construction projects.

Human resource management in Africa is often hampered by the reference to the term ‘developing’ as compared to other countries termed as ‘developed’. According to Terence (2011), this view is biased since Africa had different cultural view that may not be similar to other countries and developing project team should be done putting culture into perspective. When developing people, managers should not only focus on what the people will help the organization in itself but also portray the humanistic view in which they see people as having value in themselves. There is therefore need to put into account both the cross cultural differences and related interactions at national and also interethnic levels during team building among organizations in Africa.

In their study of South Africa, Mathauer and Imhoff (2006) indicate that low motivation of health workers is a serious impediment to success of health initiatives. Majority of the health workers loose motivation when they are unable to satisfy their ethical conscience and poor human resource management from their employers. When managers have the right tools and strategies for team development but apply them poorly, workers may lack the motivation to perform their duties as prescribed. These sentiments are shared by Nyambegera (2002) who urges that for effective management of human resource in organizations in Africa, then there is need to manage the ethnic diversity in African organizations. Proper management of ethnic differences increases organization harmony and effectiveness. Embracing inclusion and appreciating the inherent employee differences in line with the specific local communities improves the image and effectiveness of the organization.

Research by Shair (2016) on staff at Kazi Kwa Vijana project indicate that selection of workers for the project did not consider previous experience. This further had a negative effect on the output as a lot of training was needed. Staff also did not have a main forum for sharing their thoughts on output and work progress with other team members. The team also lacked a proper reward system as a method of motivating its staff leading to frustrated team members.

In his study of Bumula Sub county, Simiyu (2015) concludes that the school’s Board of management greatly influences the implementation of CDF projects. His study showed that 33.3% of the project team had no idea if the management board had clear procedures of how project staff should be employed. Majority of the project staff were employed on the basis of friendship and other ties with the management board. This problem would be solved by proper stakeholder management, with creation of community awareness about the opportunities available within the

project and enhancing stakeholder participation. There was also need for sensitization of the board of management to ensure they put into account all project factors and not just their own interests. Juma (2015) concludes that the project management team should be composed of people who are well versed with the project management principles and practices.

#### **2.4 Risk Management Skills and CDF Project Implementation**

Risks are potential problems that are yet to happen. Risks are inevitable and every project needs to be managed for risks irrespective of the type. Thus, risk management refers to the process and culture used in addressing the potential adverse effects and opportunities (Lugusa & Moronge, 2016). The main question that every project manager should ask themselves is what problems they may encounter in the course of the project, their effect on the projects' implementation and how they can be avoided (Cervone, 2006).

Lugusa and Moronge (2016) suggests four main areas of risk management including risk identification, analysis, response and finally risk control and monitoring. In risk identification, the project manager should establish what is and what might be in an effort to find the risks that are pertinent to the project. According to Muller and Judgev (2012), once the important information about probable risks has been collected, managers can now use the Delphi technique with several iterations to reach a consensus. Delphi Technique is a method used to derive a concensus among a group of experts. Other methods that can be used to identify risks include brainstorming, interviewing and SWOT analysis.

According to Shahu, Pundir, and Ganapathy (2012), Project managers should develop a risk identification checklist with regards to available historical information from previous projects or other knowledge sources. In addition, the manager should keep a risk register which should document the risk, rank, description, root cause, triggers, responses and probability and impact among others items.

Managers should also carry out a risk analysis to determine the probability of a risk occuring and its impact on the project progress. By carrying out a risk probability, they will understand how likely the risk could occur and impact details the potential effects of the risk if it actually occurred. The biggest challenge at this stage is estimating the risk since they are things that havent occurred and cant be measured in reality other than just estimated. There is also the task of dealing with how different people inform judgement when there are no data to refer to within.

Monitoring and control of risks involve activities like monitoring risk triggers, and review and communication of risk status. According to Zwikael and Globerson (2006), weekly project status meeting is one of the most crucial tools in monitoring projects for risk. Risk management should be part of the agenda of every periodic status meeting. Cervone (2006) suggests that communication throughout the project team and organization is one of the most effective risk control and avoidance strategy. When the project team and stakeholders talk more often about risk, they will be more informed and on the lookout for risks. They will be in a better place to identify probable risks. However, project managers should monitor the behavior of the team as people might develop a negative attitude towards meetings with a feeling that it is a waste of time while the real work is at stake.

The last bit in the risk management process is planning for risk response. Managers need to develop actions to reduce project risks and increase opportunities. Through a proper risk response plan, managers should prioritize the risks and adjust the budget, resources and schedule accordingly to incorporate the developed actions.

Cervone (2006), highlights some of the most common risk factors across all project types. Among them include poor top management support, lack of commitment from project users and beneficiaries and improper understanding of the project requirements. Similarly, when users are not adequately involved, and their expectations not sufficiently managed then mitigating risks in a project venture becomes even harder. Cervone (2006) stresses the fact that commitment is more important than support. Support could come in form of just financing the project with a few positive words behind it but commitment is actively being involved in the project throughout its implementation. Risk identification has a strong positive influence on a project's objective and its success. Similarly, effective communication is key in the risk identification process (Bakker, Boonstra, & Wortmann, 2014).

Training of the project team on risk management practices, awareness creation, policy and standards development and governing risk identification process are among the key areas organizations can base on in creating a working risk identification culture. In addition, there is need for continued staff motivation in regards to adhering to policies and standards as far as risk identification and mitigation is concerned (Kipyegen, Mwangi, & Kimani, 2012)

Proper application of risk management practices resulted to higher success rate of software projects in South Africa (Wet & Visser 2013). This tendency was also examined among the construction industry in Nigeria. Augustine, Ajayi, Ade, and Adakole (2013) indicated that the construction industry in Nigeria had a 53.04% risk index which translated to a very high rate of construction projects' failure. In Uganda, Mujabi, Otengei, Kasekende, and Ntayi (2015) concluded that risk management was key in the implementation and success of donor funded projects within the country.

A lack of a systematic way of managing project risks on the part of both contractors and owners displayed high tendencies of project failures among the construction projects in Chile (Serpella, Ferrada, Howard, & Rubio, 2013). This sentiments are supported by Kariungi (2014) whose study in Kenya Power projects indicated that poor risk management negatively affected the company's project completion time. Lack of proper risk management led to delays in the procurement process, delays in the release of funds, and also unforeseen changes in climate that caused the projects to either halt or be postponed to a later season. Further, Gwaya, Masu, and Wanyona (2014) indicate that risk management is among the major causes of failed construction projects in Kenya. A survey by Wachuru (2013), on CDF projects in Juja Constituency indicated that there was very minimal application of systematic risk management in project implementation.

The risk identification process is key in the process of managing and mitigating risks as it enables implementers to identify the most cost effective and suitable ways of handling the probable risks. In Iran, brainstorming and project managers' experience were found as some of the key methods of risk identification (Tadayon, Jaafar, and Nasri 2012).

When managing for risks in a project, and initiating a risk management plan at the planning phase, it is important to identify a project you can learn from. The project of choice should have been very well maintained, but has experienced uncertainties that needed the attention of the project team and has time allocation to carry out a risk management process. Having a risk management plan at the planning phase makes it less trouble free and much more rewarding. Trying to develop a risk management plan before doing the project plan can be much more difficult since the project is not well defined yet (Chapman & Ward, 2003).

## **2.5 Time Management Skills and CDF Project Implementation**

Delays in projects is one of the most frequent problem in project implementation. This is particularly common in the construction industry. According to Solís-Carcaño, Corona-Suárez, & García-Ibarra (2015), delays in project completion have many ripple effects. There are high chances of cost overruns due to extra expenses on personell management, higher material costs and payment of contractor penalties among others. When the focus is beating the timelines, the quality of the project could also be highly compromised. There are also chances of reworks due to overworked and fatigued employees.

Many developing countries have additional problems like social harm. This is in event the project needs to complete in a much shorter time since it is needed urgently. Such occurences are common in the construction of public assets like schools, roads or bridges (Solís-Carcaño, Corona-Suárez, & García-Ibarra, 2015). Due to these incidences, contractors need to have proper time management processes in place in order to achive their objectives without compromises.

Project time management involve processes a manager requires to effectively manage a project for timely completion. According to The Project Management Institute (2012), effective time management requires a clear definition of the project activities, sequencing, estimation of of how much resources each activity requires, and finally coming up with schedules and controls. To identify the project activity, a manager can break down the activities into smaller pieces that are easily manageable and controllable. The use of a work breakdown structure is essential at this point to define the activities (Hussain, 2014) The manager can also define activities by engaging experts in the area and using their ideas to establish what is needed.

Project managers also need to sequence the activities by identifying the dependencies applicable. These process is easier done using software packages (Project Time Management: Study Notes, 2012). In sequencing activities, project managers need to put into account leads and lags to cater for activities that affect others and thus affect the overall completion time of the project (Jainendrakumar, 2015). Another knowledge area that a project manager should perfect is the defination of project activities. The manager should come up with specific requirements that will achieve the objectives of the said project. Activities help the team to estimate, schedule, execute, monitor and finally control the program undertaking. Estimation of activity durations helps in

sheduling time periods, possible start and end times that cushions the tasks from delays and other factors that might extend the task's duration.

In his study of Mexico construction projects, Solís-Carcaño, Corona-Suárez, and García-Ibarra (2015) indicates that proper use of time management tools and techniques is essential in delivering projects within the defined schedule. These research indicated that 50% of projects were delivered on time while 21% delayed. 29% had an approval from the project owners which is a good practice in project time management where the project has to exceed the given schedule due to factors beyond control.

In Russia, school projects were carried out as per specific project management cycle; a model that enhanced their completion rate (Chikati, 2009). The projects in Russia displayed tendencies in the use of log frame matrix from planning, design, project appraisal and management to the projects' consistent monitoring and evaluation.

A survey of South African countries indicated that majority of the projects in the construction industry were done with time and cost in mind (Bowen., et, al, 2012). However, this study shows discrepancies in the expectations of the clients and that of the consultant's in times of time alongside other project parameters of quality and cost. Engineers find it easy to define quality at the onset of the project but the use of schedules and cost control forms sounded far much foreign to them. Users on the other hand are more certain about the amount of money they are willing to part with for the project leaving the issue of time management elusive in both cases.

In a study on Nyeri constituency, Mwangi (2012) established that only 62.96% of CDF projects completed on budget and the rest 37.04% went beyond budget. This tendency was attributed to poor planning where the budget is underestimated, scope changes, scope creep and inflation. Projects in Nyeri also expressed a lack of documented schedule for project activities. These sentiments were shared by Oyalo (2015) who recommends that people with project management including schedule preparations and time estimation should be hired as project managers. Lugusa and Moronge (2015) suggests that project managers need to accurately estimate the activities involved in a project, the related resources and time durations for efficient delivery of bank financed projects.

According to Kibebe and Mwirigi (2014), there is poor commitment by the CDF committee towards project implementation. Since majority of the project implementers are not direct

beneficiaries, their concern is mostly on allowances and what they are getting directly from the project other than managing the project to complete on time. When the projects go beyond the stipulated time, this means some more allowances to them, working to their advantage. In their study of CDF projects in Kiminini Constituency, Kibebe and Mwirigi (2014) established that a lack of skills and experience by the involved parties was a major cause of failed projects.

## **2.6 Theoretical Framework**

One of the theories that will guide this study is the skills-based leadership theory postulated by Robert Katz in 1955. According to this theory, effective leaders have a set of skills adopted in their course of management. Administrators are the people responsible for directing others and ensuring they collectively achieve the objectives of the initiative at hand. As a project administrator, there are three sets of interrelated skills that are necessary for effective direction and success in their mandate. These skills include technical, human and conceptual skills (Northouse, 1997).

The skill based theory was used in guiding the second and third objective of the study. The principals need proper team management for effective communication, motivation and remuneration of the people working on the CDF project. Similarly, principals need conceptual skills to identify, analyze and develop a monitoring and control plan for any risks as hampering the project progress is detrimental to the school holistically. Poor coordination of activities due to lack of conceptual skills can only escalate the risks and cause delays in projects or lower the project quality.

Another theory that will guide this study is the Pareto Principal postulated by Vilfredo Pareto in 1895. According to this theory, 20% of the activities being done are vital while the remaining 80% are trivial. The 20% of activities are responsible for the 80% of the project success (Koch, 2008).

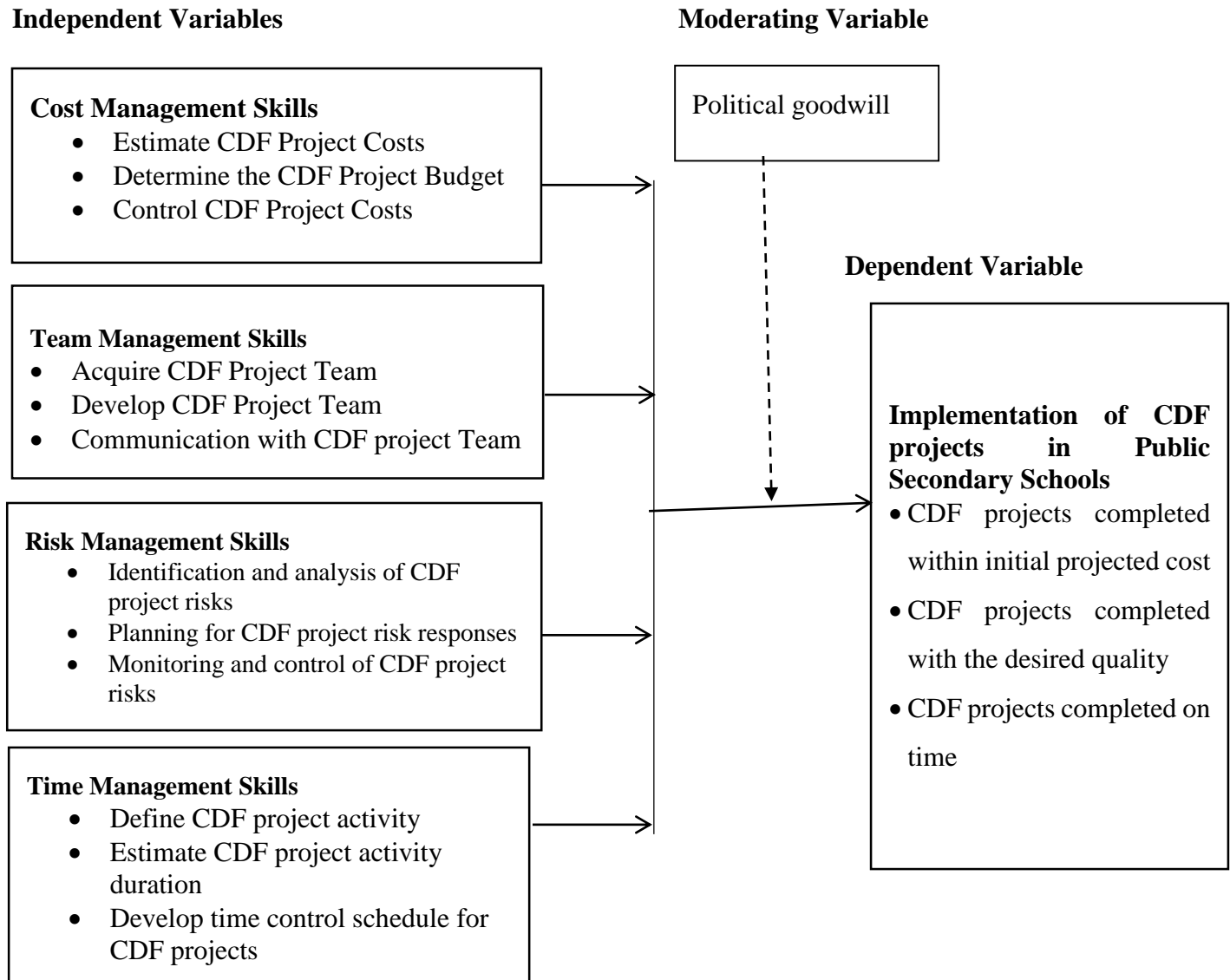
This theory was used to guide the influence of cost and time management skills of the principals on CDF project implementation. School principals need to properly schedule and prioritize their task if the project has to be completed on time, budget and achieve the right quality. Principals should therefore focus on accomplishing the 20% of activities which have a greater impact on the project implementation success. Resources should also be allocated in resonance with how important the activity is. Principals need to allocate much of the resources to activities that have a greater impact on the project progress rather than trying to distribute the resources to every



activity at the same time. Budgetary control requires principals to understand what is important and what is not at the specific instance for the project to continue without stalling.

## 2.7 Conceptual Framework

The relationship between variables is represented in figure 1.



**Figure 1: The Conceptual Framework**

From the model in figure 1, the independent variables are the project management skills which include cost, team, and risk and time management skills. These variables are capable of influencing the dependent variable CDF project implementation cost, project completion time and the quality of the project. When principals have project cost management skills in that they can correctly estimate project costs, determine project budget and control project costs, then this increases the chances of a project completing within the initial cost. There will be no events of halting projects

to wait for additional funds which means the project will complete within the time. Availability of well documented costs and needs for the project will help the principals procure materials on time and of quality and pay the project team on time thus increasing chances for good quality output. Principal's team management skills will help them acquire a project team that has the expertise, developing the team will help them know what is expected of them and communication will increase the cooperation and goodwill among the team members. The ability of project managers to manage risks will help evade unforeseen circumstances that could cause cost overruns, affect project quality and extend the completion time. This in turn will help adhere to the objectives of the project, in terms of expectations of budget, time and the quality. Ability to manage the project for time definitely affects both cost as extend project durations cause cost overruns and hampers the quality of the final projects. For the principal's to be able to exercise their authority as heads and deliver projects in time, there needs to be political good will. The sitting MP should allow the various CDF implementing teams to use the skills they have to administer projects. There should also be timely funding for principals to practice these skills in managing school projects

## 2.8 Research Gap

The studies discussed in this literature section shows how efforts have been done by scholars to expand knowledge in the area of project management both locally and in the global arena. However, there are still some research gaps identified as summarized in Table 2.1.

**Table 2.1: Research Gaps**

<b>Author</b>	<b>Topic</b>	<b>Findings</b>	<b>Research Gap</b>
Lugusa and Moronge (2016)	Influence of Project Management Skills on Perfomance of Bank Financed Projects in Kenya: A Case of Commercial Banks Projects	Risk, cost, quality and time management skills all had a positive influence on bank financed projects	Research centered only on Bank Financed projects hence the need to carry out a study to ascertain if the findings could be generalized to projects in other sectors.

Shair (2016)	Influence of Project Management Skills of Staff on Performance of Government Funded Projects in Kenya: The case of Kazi Kwa Vijana Initiative in Kibera, Nairobi County	Employees not recruited based on previous experience, No training, No cost control system, No monitoring reports	Project implementation measured against internal objectives of the Kazi Kwa Vijana Project and hence the need to have a study that uses more general project implementation parameters of Cost, time and Quality on
Memon et., al (2010)	Factors Affecting Construction Cost in Mara Large Construction Project: Perspective of Project Management Consultant.	Financial difficulties such as poor site management lead to changes in scope and thus overstretch budget	The focus was made on consultants and thus the need to establish how implementers' skills on the ground can influence the project cost
Mbaya and Masinde (2014)	Impact of subsidized school funding on infrastructure development in public secondary schools in Sabatia sub county, Vihiga County	Insufficient support from government is implementation of school projects.	Focused on government contribution in financial management hence the need to establish how financial management skills of school heads affected the projects implementation.
Mathauer and Imhoff (2006)	Health worker motivation in Africa: the role of non-financial incentives and human resource management tools	Low motivation of health workers is a serious impediment to success of health initiatives.	Focused on Health initiatives hence need to find out if results are applicable to other sectors

Kipyegen, Mwangi, and Kimani (2012)	Risk management adoption framework for software projects:	Staff training and awareness is key to risk identification and mitigation	Focus made on software projects only hence need to carry out a study on construction projects.
Solís-Carcaño, et.al., (2015)	The Use of Project Time Management Processes and the Schedule Performance of Construction Projects in Mexico.	Proper use of time management tools and techniques is essential in delivering projects within the defined schedule.	Done in Mexico hence need to find out if findings can be generalized in Kenya

**2.9 Summary of Literature Review**

To understand the concept of project management skills and their influence on the implementation of CDF projects, this chapter reviewed literature related to underlying project management skills. The chapter also outlines a wide array of success and failure factors in CDF implementations and the trends in various constituencies. The chapter also examined the critical project management skills necessary for successful project implementation including cost, team, risk and time management which make up the independent variables of the study. The chapter also expound on the skill based theory and the Pareto Principle that were used as guides to this study.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter discussed the methodology adopted in carrying out the study. This section covered the research design preferred for the study, the target population, sample size and the sampling procedure used, data collection methods, pilot survey, validity and reliability, instrumentation, methods of data analysis and ethical considerations.

#### **3.2 Research Design**

This study used a descriptive survey research design. This design allowed the study to describe or explain the relationships that exists between variables without altering those relationships. Cross-sectional survey was ideal for this study because it brought out information on skills that would be rendered immeasurable by observational techniques.

#### **3.3 Target Population**

The researchers targeted public secondary school principals in Cherangany constituency. Therefore; the total target population across the entire constituency was seventy-three (73) principals according to the Trans Nzoia East Education office.

#### **3.4 Sample Size and Sampling Procedure**

The sample size was selected according to Krejcie and Morgan (1970) table. From the table, the sample size for this study was fifty-nine (59) principals at the confidence interval of 0.05 and confidence level of 95%. The study employed purposive sampling by selecting principals that have been part of at least one CDF project in the constituency. This eliminated new principals or those on transfer who had not implemented any CDF project within Cherangany constituency.

### 3.5 Data Collection Method

The study used questionnaires to collect data. The questionnaires had four sections based on the study objectives. The questionnaires had close-ended questions to ensure the responses remained consistent across the respondents.

#### 3.5.1 Pilot Study

After the instrument was developed, it was administered to six principals in Mathira constituency as samples with similar characteristics as the one that was used for the study. This helped the researcher ascertain whether the instrument would be able to deliver the desired results. It also served to check the validity and reliability of the instrument.

#### 3.5.2 Validity of Research Instruments

This study adopted both the construct and content validity. To achieve the construct validity, the researcher had the questionnaire in four sections, with each section handling a specific objective. The researcher revised the instrument used by Shair (2016) to measure the influence of project management skills of staff on the implementation of government funded projects. The researcher also revised the instrument used by Lugusa and Moronge (2016) to study influence of project management skills on implementation of bank financed projects in Kenya. These revision was done to achieve content validity. Finally, the researcher discussed the instrument with the supervisor to obtain expert opinion.

#### 3.5.3 Reliability of Research Instruments

The study used the Cronbach's alpha to measure the reliability of the tool using data from the pilot study through SPSS. The results of the reliability test are as in table 3.1.

**Table 3.1: Reliability Analysis**

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<b>Variable</b>	<b>Cronbach's alpha</b>	<b>No of items</b>
Cost Management Skills	.806	4

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<b>Variable</b>	<b>Cronbach's alpha</b>	<b>No of items</b>
Team Management Skills	.795	6
Risk Management Skills	.870	6
Time Management Skills	.679	3
CDF Project Implementation	.902	3

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According to Tavakol & Dennick (2011), a Cronbach alpha coefficient of 0.7 is reliable. This study adopted a Cronbach alpha of between 0.7 and 0.9 on rounding off as in table 3.1. The results shows that all the variables were reliable hence adopted for the collection of data.

### **3.6 Data Collection Procedures**

The researcher sought the authorization and details of principals from the Trans Nzoia East Sub County Education office. The researcher contacted the principals on preferred method of administering the questionnaire whether by email or drop and pick. Some portion of the questionnaires were administered to the respondents via email while the rest were administered through the drop and pick technique. The respondents were given a one-week time frame to complete filling in the questionnaires after which the questionnaires were retrieved from the respondents for analysis.

### **3.7 Data Analysis Technique**

After data collection, all the returned questionnaires were numbered and the data coded. Preliminary editing was done where the raw data was keenly scrutinized, checked and cleaned for completeness, consistency, and comprehensibility. Incomplete questionnaires and any other inconsistencies were eliminated. The useful data was then coded and analysed using SPSS. The results were presented using frequency tables. Both descriptive and inferential statistics were used for analysis.

### **3.8 Ethical Considerations**

The researcher used a letter of transmittal to seek authorization from the Trans Nzoia East District office of Education and the principals while collecting data. Honesty was observed though out the



data collection period. The researcher stressed on the principle of Voluntary consent allowing respondents to willingly participate in the study. Participants were assured that the information given would be handled with utmost confidentiality and privacy upheld. The researcher also indicated that the information given was purely for academic purposes.

### **3.9 Operational Definition of variables**

Table 3.2 shows the operational indicators that were used in this study. It presents a summary of the variables, their indicators, scale used to measure, data collection method and level of analysis

**Table 3.2: Operational Definition of Variables**

Research objectives	Type of variable	Indicators	Level of scale	Data collection method	Level of Analysis
To assess the influence of principals' project management skills on the implementation of CDF projects	<b>Dependent</b> CDF Project Implementation in Public Secondary Schools in Cherangany Constituency	<ul style="list-style-type: none"> <li>• Number of CDF projects completed within initial projected cost</li> <li>• Number of CDF projects completed with the desired quality</li> <li>• Number of CDF projects completed on time</li> </ul>	Ordinal	Questionnaires	Descriptive Inferential
To determine how cost management skills influence the implementation of CDF projects in Public secondary schools in Cherangany Constituency.	<b>Independent</b> Cost Management Skills of Public Secondary School Principals in Cherangany Constituency	<ul style="list-style-type: none"> <li>• Estimating overall CDF project Costs</li> <li>• Determining the CDF Project Budget through clear breakdown of cost per activity</li> <li>• Clear Cost control mechanism for CDF project activities</li> </ul>	Ordinal	Questionnaires	Descriptive Inferential

<p>To assess the extent to which team management skills influence the implementation of CDF projects in Public secondary schools in Cherangany Constituency.</p>	<p><b>Independent</b> Team Management Skills of Public Secondary School Principals in Cherangany Constituency</p>	<ul style="list-style-type: none"> <li>• Acquire skilled and proficient CDF Project Team</li> <li>• Develop CDF Project Team through training, remuneration and motivation.</li> <li>• Communication mechanism with the CDF project team</li> </ul>	Ordinal	Questionnaire	Descriptive Inferential
<p>To examine how risk management skills influence the implementation of CDF projects in Public secondary schools in Cherangany Constituency.</p>	<p><b>Independent</b> Risk Management skills of Public Secondary School Principals in Cherangany Constituency</p>	<ul style="list-style-type: none"> <li>• Identification and analysis of CDF project risks</li> <li>• Planning for CDF project risk responses</li> <li>• Monitoring and control of CDF project risks</li> </ul>	Ordinal	Questionnaire	Descriptive Inferential
<p>To determine the extent to which time management skills influence the implementation of CDF projects in Public secondary schools in Cherangany Constituency.</p>	<p><b>Independent</b> Time management skills of Public Secondary School Principals in Cherangany Constituency</p>	<ul style="list-style-type: none"> <li>• Definition of CDF project activity</li> <li>• Estimation of how long each CDF activity will take</li> <li>• Development of a schedule to control CDF activity time</li> </ul>	Ordinal	Questionnaire	Descriptive Inferential

# CHAPTER FOUR

## DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

### 4.1 Introduction

This chapter presents the analysis, presentation as well as interpretation and discussion of the research findings. Data was analyzed using descriptive statistics such as frequency and percentages as well as linear regression analysis. The findings were presented using tables. The findings are presented and analyzed on the basis of the research questions and specific objectives and contextualized in the light of previous studies done in the area.

### 4.2 Questionnaire Return Rate

The response rate of the study is presented in Table 4.1.

**Table 4.1 Questionnaire Return Rate**

<b>Return Rate</b>	<b>Frequency</b>	<b>Percentage</b>
Return	38	64.41%
Non-return	21	35.59%
<b>Total</b>	<b>59</b>	<b>100%</b>

A total of 38 filled questionnaires were collected out of the 59 that were distributed, yielding a 64.41% percent response rate. Of the remaining 21 questionnaires, 10 respondents indicated that they have not managed a CDF project within the constituency and 11 were completely not responded to by the targeted respondents (representing 35.59%). The response rate of 64.41% was found to be above the acceptable range for such a survey. Kothari (2014) argued, a 50% response rate was adequate for analysis. 64.41% was therefore representative of the respondents to provide information for analysis and was deemed acceptable for making statistical inferences.

### 4.3 Descriptive Statistics

The respondents were asked to rate their level of agreement on statements on each of the variables. A five point Likert scale ranging from 1 to 5 where 1 = strongly disagree, 2 = disagree, 3= neutral, 4 = agree and 5 = strongly agree was used. This section presents the descriptive statistics that is frequency and respective percentage of each response. The section has been presented per objective.

#### 4.3.1 Cost Management Skills and CDF Project Implementation

The study sought to establish the influence of the principals cost management skills on CDF implementation in schools. The respondents were asked to indicate the extent to which they agreed with statements on cost management skills on scale of 1-5, where 1=strongly disagree, 2=disagree, 3= neutral, 4=agree and 5=strongly agree. The findings are presented in Table 4.2.

**Table 4.2 Cost Management Skills and CDF Project Implementation**

Statement	1	%	2	%	3	%	4	%	5	%
Every task touching the CDF project in my school is well budgeted	0	0.0%	0	0.0%	8	21.1%	30	78.9%	0	0.00%
Individuals accountable for each task are specified	0	0.0%	0	0.0%	10	00.0%	0	00.0%	38	0.0%
I have planning charts completed by breaking down every principal activity into a variety of tasks	3	7.9%	2	5.3%	16	42.1%	11	28.9%	6	15.8%
I have a cost control system for CDF project activities in my school	4	10.5%	5	13.2%	11	28.9%	13	34.2%	5	13.2%

The findings presented in Table 4.2 indicated that 8 respondents (21.1%) were neutral on the statement that every task touching the CDF project in their school is well budgeted while the rest, 30 respondents (78.9%) strongly agreed on the statement. It was also established that all the

respondents strongly agreed that individuals accountable for each task are specified before project implementation. This shows that school principals have utilized their financial skills in helping the CDF committee to effectively budget for the CDF projects in their schools. These findings are in line with Juma (2015) and Nakitare (2016) who indicates that school based projects fail due to poor financial management and embezzlement of funds pegging it on the part of the sponsors that is, before the funds reach the final implementers.

It was also established that all the respondents strongly agreed that individuals accountable for each task are specified before project implementation. This finding conflicts with the study by Awiti (2008) who denotes that there is widespread lack of accountability in CDF project implementation. However, Awiti's focus was on the CDF office and the role of the member of parliament in projects as opposed to the final administrators and project implementers. A lack of accountability in the CDF office can have a trickle effect to the grass root level, but with proper task allocation and accountability on the ground, like in the case of principals, then CDF projects in schools can still succeed.

It was also established that 16 principals (42.1%) of the respondents were neutral on the statement that they have planning charts completed by breaking down every principal activity into a variety of tasks while 11 (28.9%) and 6 (15.8%) of the respondents agreed and strongly agreed on the statement. Most principals lack sufficient knowledge on planning charts and their use thus the high number of neutral respondents. These findings are in line with Chepkonga (2006) whose research indicate that school heads need skills in budget preparation and basic accounting among other project management areas

training in very key management areas such as accountancy, preparing budgets and general project management.

The findings further showed that 18 respondents (47.4%) agreed that they have a cost control system for CDF project activities in their schools while 11 (28.9%) of the respondents neither agreed nor disagreed on the statement. However, 9 principals (23.7%) of the respondents disagreed that they have a cost control system for CDF project activities in their schools. Experience in

managing various projects and number of years as a school head is a great positive aid in cost control skills transfer among school heads.

The findings imply that the most practiced cost management practice by the principals is well budgeting for every task touching on CDF project as well as specifying the individuals accountable for each task. Other cost management practices such as having planning charts completed by breaking down every principal activity into a variety of tasks as well as having a cost control system for CDF project activities in the school are less practiced.

#### 4.3.2 Team Management Skills and CDF Project Implementation

The study also sought to establish the influence of the principal’s team management skills on CDF implementation in schools. The respondents were asked to indicate the extent to which they agreed with statements on team management skills on scale of 1-5, where 1=strongly disagree, 2=disagree, 3= neutral, 4=agree and 5=strongly agree. The findings are presented in Table 4.3.

**Table 4.3 Team Management Skills and CDF Project Implementation**

Statement	1	%	2	%	3	%	4	%	5	%
The project team is acquired based on their previous experience in similar projects	2	5.3 %	5	13.2 %	9	23.7 %	0	0.0 %	22	57.9 %
The project team is trained on expectations before project commencement	4	10.5 %	10	26.3 %	7	18.4 %	0	0.0 %	17	44.7 %
The CDF project team is highly motivated	3	7.9 %	5	13.2 %	3	7.9%	5	13.2 %	22	57.9 %
The project team is paid on time	5	13.2 %	7	18.4 %	10	26.3 %	5	13.2 %	11	28.9 %
I have a defined communication system followed to communicate with the project team	5	13.2 %	1	2.6%	11	28.9 %	16	42.1 %	5	13.2 %

Statement	1	%	2	%	3	%	4	%	5	%
Interpersonal skills needed to motivate a project team are a project manager's most important asset	3	7.90%	3	7.90%	17	44.70%	5	13.2%	10	26.30%

The findings presented in table 4.3 indicated that 22 principals making up majority of the respondents (57.9%), strongly agreed that the project team is acquired based on their previous experience in similar projects while 9 (23.7%) neither agreed nor disagreed. However, 7 (18.5%) of the respondents disagree on the statement. These findings diverge from the findings by AkhavanTabassi and AbuBakar (2009), whose study indicated that majority of construction workers were unskilled. However their study was done in Iran, whose employment processes are different from Kenya. Similarly, some of the manual works in construction just need hand on initial experience and the knowledge can be transferred to other projects.

The results also showed that 17 (44.7%) of the respondents strongly agreed that the project team is trained on expectations before project commencement while 7 (18.4%) were neutral on the statement whereas 14 (36.8%) disagreed that the project team is trained on expectations before project commencement.

22 respondents (57.9%) strongly agreed that the CDF project team is highly motivated while 5 (13.2%) agreed on the same. However, 8 (21.1%) of the respondents disagreed on the statement that the CDF project team is highly motivated. Regarding whether the project team is paid on time, 11 (28.9%) of the respondents strongly agreed while 5 (13.2%) disagreed. However, 12 (31.6%) disagreed that the project team is paid on time. These findings are in line with Darrington (2010) whose research indicated that intrinsic motivation of workers coupled with monetary incentives are a big boost to project success. The results however differ with Shair (2016) whose findings in the Kazi Kwa Vijana initiative ascertained that the youth were not hired based on their capabilities and previous work experience. The difference can be explained by the different settings with Kazi Kwa Vijana requiring the hiring of youths who may not have had time to practice or experience



similar projects as opposed to CDF projects that can accommodate people of all age brackets thus expanding their selection of work force. Similarly, the results differ with Mathauer and Imhoff (2006) whose research indicated that low motivation of health workers is a serious impediment to success of health initiatives. The difference could be related to the diversity in the two sectors i.e. health and construction and also cultural differences in Kenya and South Africa.

16 respondents (42.1%) agreed that they have a defined communication system followed to communicate with the project team with 5 (13.2%) agreeing to the statement. This makes up the majority of the respondents. 6 (15.8%) indicated that they don't have. On the other hand, 11 (28.9%) were neutral on the statement. The high number of agreement can be attributed to the fact that communication has evolved and the presence of mobile phones makes it easy to communicate to project members at any given time. The neutral respondents are just not sure whether to classify their mode of communication as definite or not. This could be due to lack of knowledge in communication skills as supported by Newton (2015).

The results also showed that only 10 (26.3%) strongly agreed that a project manager's interpersonal skills is key in motivation and hence project success. 5 (13.2%) agreed to these statement. Those who disagreed were 6 (15.8%) while the majority of the respondents, that is 44.7%, were neutral on the statement. This implies that majority of the principals understand the need for interpersonal skills in project implementation. However, there is a high percentage of neutral respondents that could imply insufficient knowledge as to why and where interpersonal skills should be applied. In support of this study results Brenton & Levin, (2012) argues that the ability to identify the problem and control it in the direction of the objectives is a key coordination skill required for project success.

The findings imply that some of the most practiced team management practices adopted by principals in implementation of the CDF projects is having a defined communication system followed to communicate with the project team, acquiring the project team based on their previous experience in similar projects as well as highly motivating the project team.

### 4.3.3 Risk Management Skills and CDF Project Implementation

The study also sought to establish the influence of the principal’s risk management skills on CDF implementation in schools. The respondents were asked to indicate the extent to which they agreed with statements on risk management skills on scale of 1-5, where 1=strongly disagree, 2=disagree, 3= neutral, 4=agree and 5=strongly agree. The findings are presented in Table 4.4.

**Table 4.4 Risk Management Skills and CDF Project Implementation**

Statement	1	%	2	%	3	%	4	%	5	%
I have risk identification checklists in place for the CDF projects in my school	3	7.9 %	1	2.6 %	10	26.3 %	5	13.2 %	19	50.0 %
Risk identification checklists are developed based on historical information	0	0.0 %	0	0.0 %	4	10.5 %	9	23.7 %	25	65.8 %
The risk identification checklist are helpful when identifying potential risk areas	2	5.3 %	0	0.0 %	2	5.3 %	8	21.1 %	26	68.4 %
I help the PMC to monitor and control risks	0	0.0 %	2	5.3 %	2	5.3 %	15	39.5 %	19	50.0 %
Risk probability and impact assessment are carried out for CDF projects in my school	2	5.3 %	0	0.0 %	7	18.4 %	9	23.7 %	20	52.6 %
There are planned risk responses to enhance opportunities and to reduce threats	0	0.0 %	1	2.6 %	0	0.0 %	23	60.5 %	14	36.8 %

The findings presented in Table 4.4 indicated that 19 (50.0%) of the respondents strongly agreed while 5 (13.2%) agreed that they have risk identification checklists in place for the CDF projects

in their schools. On the other hand, 4 (10.5%) of the respondents disagreed on the statement. The number of neutral respondents was 10 (26.3%). On whether risk identification checklists are developed based on historical information, 25 (65.8%) of the respondents strongly agreed while 9 (23.7%) agreed. No one disagreed on the statement. This means that a majority of the principals utilize their risk management skills in helping ensure that CDF projects risks are properly managed.

The study also sought to establish whether the risk identification checklist are helpful when identifying potential risk areas. The results showed that 26 (68.4%) of the respondents strongly agreed with statement, 8 (21.1%) agreed, 2 (5.3%) of the respondents neither agreed nor disagreed with the statement. However, only 2 (5.3%) of the respondents strongly disagreed while none of the respondents disagreed with the statement. The respondents, 19 (50.0%) strongly agreed that they help the PMC to monitor and control risks, 15 (39.5%) agreed, 2 (5.3%) were neutral and 2 (5.3%) disagreed with the statement. The results imply that majority of the respondents understand and apply the use of risk identification checklists and can attest to the importance of such checklists. These findings are in line with Zwikael and Globerson whose research indicated that weekly consultations with project implementers where risks are discussed is a great boost to project success.

The results also showed that 20 (52.6%) of the respondents strongly agreed that risk probability and impact assessment are carried out for CDF projects in school, 9 (23.7%) agreed, 7 (18.4%) of the respondents neither agreed nor disagreed while 2 (5.3%) of the respondents strongly disagreed with the statement. The findings further showed 23 (60.5%) of the respondents agreed that there are planned risk responses to enhance opportunities and to reduce threats, 14 (36.8%) strongly agreed, and 1 (2.6%) disagreed. The findings imply that the most practiced risk management skills implemented by the principals of secondary schools are developing risk identification checklists based on historical information, using risk identification checklist to identify potential risk areas, helping the PMC to monitor and control risks as well as carrying out risk probability and impact assessment for CDF projects. These findings disagree with the study by Wachuru (2013) whose findings indicated that there is minimal application of risk management practices in the CDF projects limiting the success of these projects. The cause of the difference could be due to the fact that

school principals are more exposed to learning opportunities and can transfer the skills gained over time in planning and managing risks as opposed to other implementers who may be lacking even the basic education leave alone skills in project management.

Risk management skills practices such as having planned risk responses to enhance opportunities and to reduce threats in the school was less practiced. This can be related to the findings by Cervone (2006) who denotes that it becomes exceedingly hard to completely alleviate risks due to risk factors like lack of commitment from the top, lack of commitment from project users and beneficiaries, improper understanding of the project requirements, lack of user involvement and failure to manage end user expectations. Where commitment from the CDF committee, the school society and project team is missing, then planning for risk responses becomes an uphill task. These findings are also in agreement with Ochieng and Tubey (2013) who indicate that there is a lack of understanding of project management principals including risk management on the part of CDF managers.

#### 4.3.4 Time Management Skills and CDF Project Implementation

The study also sought to establish the influence of the principal’s time management skills on CDF implementation in schools. The respondents were asked to indicate the extent to which they agreed with statements on time management skills on scale of 1-5, where 1=strongly disagree, 2=disagree, 3= neutral, 4=agree and 5=strongly agree. The findings are presented in Table 4.5.

**Table 4.5 Time Management Skills and CDF Project Implementation**

Statement	1	%	2	%	3	%	4	%	5	%
All project activities for the CDF project in my school are clearly defined	4	10.5 %	3	7.9 %	13	34.2 %	4	10.5 %	14	36.8 %
I have clear estimates of all activity durations	0	0.0%	0	0.0 %	9	23.7 %	11	28.4 %	18	47.4 %
There is a time control schedule for the project activities	5	13.2 %	5	13.2 %	7	18.4 %	9	23.2 %	12	31.6 %

The findings in table 4.5 revealed that 14 (36.8%), of the respondents strongly agreed that all project activities for the CDF projects in their school were clearly defined, 13 (34.2%) were neutral, 4 (10.5%) agreed, 3 (7.9%) disagreed while 4 (10.5%) strongly disagreed with the statement. This implies that majority of the principals have an idea of how the projects should be controlled for time and have applied project time management skills in implementing the CDF projects in their schools. The findings are in line with Solís-Carcaño et, al (2015) whose study of Mexico construction projects revealed that proper use of time management techniques improved delivery of projects by 50%.

The study also revealed that 18 (47.4%) of the respondents strongly agreed that they have clear estimates of all activity durations, 11 (28.9%) agreed, 9 (23.7%) of the respondents were neutral, and none of the respondents disagreed with the statement. The results further showed that majority 12 (31.6%) of the respondents strongly agreed that there was a time control schedule for the project activities, 9 (23.7%) agreed, 7 (18.4%) of the respondents were neutral while a total of 10 (26.4%) of respondents disagreed with the statement. According to this results, majority of the principals in Cherangany constituency have an idea and have demonstrated the need to estimate the duration of each activity in order to complete the projects on time. These principals also apply time management skills in ensuring the project activities do not lag behind time by adhering to a time control schedule. The findings agree with Chikati (2009) who argued that in Russia, school projects were carried out as per specific project management cycle requirements; a model that enhanced their completion rate.

The findings imply that the principals had adopted time management skills practices such as time control schedule for the project, defining all project activities for the CDF project in the school as well as clearly estimating all activity durations in implementation of the CDF projects often. As demonstrated some time management skills were not practiced by the principals with several participants remaining neutral on the subject. These confirms the argument by Okungu (2006) that there are cases where people on the ground lack the competence and skills in designing and implementing viable CDF projects. The argument is supported by Kibebe and Mwirigi (2014) whose survey established that a lack of skills and experience by the involved parties was a major cause of failed projects. In addition, the study by Mwangi (2012) indicated that insufficient

planning and lack of a documented schedule for project activities and their time durations is a major contribution to derailed completion of CDF projects.

#### 4.3.5 Implementation of CDF Projects

The study also sought to establish the trend in the success of the CDF projects the principals had implemented in their tenure. A scale of 1-5, where 1 = strongly agree, 2 = agree, 3 = neutral, 4 = disagree and 5 = strongly disagree was used. The findings are presented in Table 4.6.

**Table 4.6 Implementation of CDF Projects**

Statement	1	%	2	%	3	%	4	%	5	%
CDF projects always complete within the initial allocated budget	3	7.90%	6	15.80%	11	28.90%	7	18.40%	11	28.90%
The CDF project final output is of the desired quality	1	2.60%	2	5.30%	9	23.70%	9	23.70%	17	44.70%
The CDF projects in my school complete within the given time frame.	0	0.00%	0	0.00%	4	10.50%	17	44.70%	17	44.70%

The findings presented in Table 4.6 indicated 11 (28.9%) of the respondents strongly agreed that CDF projects are always complete within the initial allocated budget, 7 (18.40%) agreed, 11 (28.9%) of the respondents were neutral, 6 (15.8%) disagreed while 3 (7.9%) strongly disagreed. The results also showed that 44.7% of the respondents strongly agreed that the CDF project final output is of the desired quality, 23.70% agreed, 9 (23.7%) were neutral, 2 (5.3%) disagreed, and only 1 (2.6%) strongly disagreed with the statement. Lastly, the findings revealed that majority 17 (44.7%) of the respondents strongly agreed that the CDF projects in their school are completed within the given time frame. 17 (44.7%) agreed, while 4 (10.5%) were neutral with the statement. However, none of the respondents disagreed with the statement.

The findings imply that some of the CDF Projects implemented by the principals were completed within the given time frame given and also they had final output of the desired quality. The findings also implied that some of CDF projects implemented were not completed within the initial allocated budget. The findings confirm an argument by Auya and Oino (2013) that CDF funded projects take long to complete while some don't start at all. The findings also agree with the argument by Ochieng and Tubey (2013) that there were delays in time of completion of CDF projects as well as cost overruns. Similarly, the findings agree with Bowen., et, al, (2012) whose study indicated that most of the construction projects are done with time and cost in mind.

#### **4.4 Linear Regression Analysis**

The study conducted a linear regression analysis so as to determine the influence of project management skills on the implementation of CDF projects. The significance of the beta coefficients was tested at 5% level of significance. The results for model summary, fitness and coefficients are presented.

##### **4.4.1 Coefficient of Determination**

The study established the coefficient of determination of the regression model also called the R-square. It is used to indicate the variation in the dependent variable in this case, implementation of CDF projects, that is accounted for by the four project management skills. The findings are presented in Table 4.7.

**Table 4.7 Model Summary**

<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std. Error of the Estimate</b>
.645	0.416	0.345	0.5272

The findings presented in Table 4.7 indicate that project management skills (Cost management skills, risk management skills, team management skills and time management skills) account for up to 41.6% of the variation in implementation of CDF projects in Cherangany Constituency as shown by an R-square value of 0.416. The remaining percentage, that is, 58.4% of the variation in

implementation of CDF projects is accounted by other factors other than project management skills of the principal. The findings also showed an R value of 0.645 which indicates that the project management skills of the principals are positively related to implementation of the CDF projects in Cherangany Constituency.

#### 4.4.2 Model Coefficients

The study also established the model coefficients of the regression model. A beta value of each variable was used to indicate how the variable affects implementation of CDF projects. The t-statistic was used to indicate the significance of the relationships where the t statistic was compared against 1.96 which is the Z score at 5% level of significance. Similarly, p- value was also used to indicate the significance of the relationship where a significance value less than 0.05 indicate a significant relationship. The findings are presented in Table 4.9.

**Table 4.8 Model Coefficients**

Predictor Variable	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	-0.405	0.956		-0.424	0.674
Cost Management Skills	0.393	0.151	0.36	2.603	0.014
Team Management Skills	0.218	0.093	0.36	2.353	0.025
Risk Management Skills	0.373	0.174	0.333	2.148	0.039
Time Management Skills	0.096	0.173	0.095	0.553	0.584

The findings presented in Table 4.9 indicates that cost management skills have a positive (B = 0.393) influence on implementation of CDF projects in Cherangany Constituency. The relationship is also significant since the t statistic of 2.603 is greater than 1.96 or the significance value of 0.014 is less than 0.05. This implies that an improvement in cost management skills by 1 unit leads to an improvement in implementation of CDF projects by 0.393 units. The findings are consistent with the findings of a study by Lugusa and Moronge (2016) who established that lack of project



management skills including cost, time, risk and quality management skills were major contributors to poor performance of bank financed projects in Kenya implying that skills are critical for project success. These findings are also in tandem with the 80/20 rule or the Pareto Principle. Where principals exercise their cost management skills more and ensure resources are allocated to the most important activities first, then the chances of achieving the project within the specified parameter is high.

It was also established that team management skills have a positive ( $B = 0.218$ ) influence on implementation of CDF projects in Cherangany Constituency. The relationship is also significant since the t statistic of 2.353 is greater than 1.96 or the significance value of 0.025 is less than 0.05. This implies that an improvement in team management skills by 1 unit leads to an improvement in implementation of CDF projects by 0.218 units. The findings are consistent with Zusch(2014) who indicated that project team formulation and coordination is a paramount step in achieving successful project. These findings agree with the skill based theory connotation that one of the pertinent skills of a manager or an administrator is the ability to manage and coordinate human resource, in this case the ability of the principals to manage the project team on the ground which positively influences the project implementation process.

The model coefficients findings also indicated that risk management skills have a positive ( $B = 0.373$ ) influence on implementation of CDF projects in Cherangany Constituency. The relationship is also significant since the t statistic of 2.148 is greater than 1.96 or the significance value of 0.039 is less than 0.05. This implies that an improvement in risk management skills by 1 unit leads to an improvement in implementation of CDF projects by 0.373 units. The findings are consistent with Shahu, Pundir, and Ganapathy (2012) who indicated that project managers should develop a risk identification checklist with regards to available historical information from previous projects or other knowledge sources. In addition, the manager should keep a risk register which should document the risk even, rank, description, root cause, triggers, responses and probability and impact among others items since such practices enhances the chances of project success. These findings are in line with the skill-based theory that indicate that administrators need conceptual skills to achieve projects on time. When Principals conceptualize the need for the project and where it fits

within their vision for the school, they are better placed to put measures into place and thus control for all the risk occurrences during the implementation of the project.

Finally, it was established that time management skills have a positive ( $B = 0.096$ ) influence on implementation of CDF projects in Cherangany Constituency. The relationship is however not significant since the t statistic of 0.553 is less than 1.96 or the significance value of 0.584 is greater than 0.05. This implies that an improvement in risk management skills by 1 unit leads to a 0.096 improvement in implementation of CDF projects although the improvement is not significant. The findings are consistent with Solís-Carcaño, Corona-Suárez, and García-Ibarra (2015) who indicated that proper use of time management tools and techniques is essential in delivering projects within the defined schedule. Similarly, the findings agree with the Pareto Principle of 80/20 rule, in that when principles focus on allocating more time to major activities, then there are high chances of achieving the project within the specified constraints of time, cost and specified budget.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents the summary of the findings particularly the descriptive, correlation and regression analysis. It also presents the conclusions and the recommendations to the study. The last section of the chapter contains areas of further study where suggestions are made for future researchers to expand more into the knowledge gaps of this study.

#### **5.2 Summary of the Findings**

The summary has been presented as per each research objective. From the summary, the study presented conclusions which aided in developing the recommendations to the study. The summary of the findings combined both descriptive and inferential results. The descriptive results such as frequency and percentages as well as the correlations and regression results formed the basis of this summary.

##### **5.2.1 Cost Management Skills and CDF Project Implementation**

The study descriptive results revealed that the most practiced cost management practice by the principals is well budgeting for every task touching on CDF project as well as specifying the individuals accountable for each task. Other cost management practices such as having planning charts completed by breaking down every principal activity into a variety of tasks as well as having a cost control system for CDF project activities in the school are less practiced. The regression results revealed that cost management skills have a positive influence on implementation of CDF projects in Cherangany Constituency; these implied that an improvement in cost management skills by 1 unit leads to an improvement in implementation of CDF projects by 0.393 units.

##### **5.2.2 Team Management Skills and CDF Project Implementation**

The descriptive findings revealed that some of the most practiced team management practices adopted by principals in implementation of the CDF projects is having a defined communication system followed to communicate with the project team, acquiring the project team based on their

previous experience in similar projects as well as highly motivating the project team. The regression revealed that team management skills has a positive ( $B = 0.218$ ) influence on implementation of CDF projects in Cherangany Constituency. The relationship is also significant since the t statistic of 2.353 is greater than 1.96 or the significance value of 0.025 is less than 0.05. This implied that an improvement in team management skills by 1 unit leads to an improvement in implementation of CDF projects by 0.218 units.

### **5.2.3 Risk Management Skills and CDF Project Implementation**

The descriptive findings implied that the most risk management skills practices implemented by the principals are developing risk identification checklists based on historical information, using risk identification checklist to identify potential risk areas, helping the PMC to monitor and control risks as well as carrying out risk probability and impact assessment for CDF projects. The regression results indicated that risk management skills practice such as having planned risk responses to enhance opportunities and to reduce threats in the school was less practiced. The regression findings revealed that risk management skills have a positive ( $B = 0.373$ ) and significant influence on implementation of CDF projects in Cherangany Constituency. This implied that an improvement in risk management skills by 1 unit leads to an improvement in implementation of CDF projects by 0.373 units.

### **5.2.4 Time Management Skills and CDF Project Implementation**

The descriptive results implied that the principals had adopted time management skills practices such as time control schedule for the project as well as clear estimates of all activity durations in implementation of the CDF projects. The regression results indicated that time management skills have a positive ( $B = 0.096$ ) influence on implementation of CDF projects in Cherangany Constituency. The relationship is however not significant since the t statistic of 0.553 is less than 1.96 or the significance value of 0.584 is greater than 0.05. This implied that an improvement in risk management skills by 1 unit leads to a 0.096 improvement in implementation of CDF projects although the improvement is not significant.

### **5.3 Conclusion**

The study concluded that cost management skills positively and significantly influenced the implementation of CDF projects. An improvement in cost management skills such as the principals budgeting for every task touching on CDF project as well as the principals specifying the individuals accountable for each task leads to positive implementation of CDF projects.

Moreover, the study concluded that team management skills positively and significantly influence the implementation of CDF projects. An increase in team management practices such as principals motivating CDF project team and the principals ensuring that the project team is acquired based on their previous experience in similar projects leads to positive and significant implementation of CDF projects.

Further, the study concluded that risk management skills practices significantly and positively influences the implementation of CDF projects. An increase in risk management skills practices such as the principals ensuring that risk identification checklists in place for the CDF projects, risk identification checklists are developed based on historical information, helping the PMC to monitor and control risks and the risk probability and impact assessment are carried out for CDF projects leads to positive and significant implementation of CDF projects.

Finally, the study concluded that an improvement in time management skills such as clearly defining all CDF project activities, clearly defining activity durations and establishing a time control schedule for project activities has a positive influence on project implementation.

### **5.4 Recommendations**

The section presents recommendations of the study based on the findings follows:

1. The study recommends that education policy makers and the parties involved in project implementation in schools like the CDF office, county government and Non-Governmental Organization to come up with mechanisms of encouraging principals to sharpen their cost project management skills including proper budgeting, accountability assignments, task division and cost controls. This will help in reducing cost overruns and also ensuring resources are allocated based on the activity importance.

2. The study also recommends that the school principals should consider focusing more on intrinsic motivation of their project teams, have proper payment plans in place and ensure those hired have some previous experience in similar projects when implementing constituency development fund projects. Similarly, there is need for acquiring proper communication skills and improving their interpersonal skills for better project implementation experience.
3. This study recommends that principals should always have documented risk management plans in place. Principals should also focus on all aspects of project risk management like risk identification, analysis, responses and risk control and risk monitoring. There is also need to enlighten principals on how to prepare and keep risk identification checklists. The education ministry should also give more avenues for principals to learn how to plan for risk responses to expand opportunities and limit threats in the course of project implementation.
4. Finally, the study recommends training principals in time management aspects like project activity definition, time duration estimations and preparation of activity schedules. This will help in ensuring that there are no cost overruns due to inflation and changes in prices of materials in the market over time.

### **5.5 Suggestions for further Study**

1. Further studies to look at other project management skills that influence implementation of constituency development fund projects since Cost Management Skills, Team Management Skills, Risk Management Skills and Time Management Skills all account for 41.6% of the variation implementation of CDF Projects in public schools. More research can be done on other project management skills including project quality management, scope management, procurement and monitoring and control.
2. Further studies could also be conducted to determine the project management that influence the implementation of CDF Projects in public schools in other constituencies and counties in Kenya.
3. Future studies could also focus on adoption of different research methodologies other than the one adopted this study.

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## APPENDICES

### Appendix I: The Questionnaire

**INTRODUCTION:** This questionnaire is designed to gather information on the Topic ‘Influence of Project Management Skills on Implementation of Constituency Development Fund Projects: A Case of Public Secondary Schools in Cherangany Constituency, Kenya.’

**INSTRUCTION:** *Please answer all the questions honestly and exhaustively by putting a tick (✓) or numbers in the appropriate box that closely matches your view or alternatively writing in the spaces provided where necessary.*

**NB:** This information will be used strictly for academic purposes only and will be treated with utmost confidence.

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#### PART A: Cost Management Skills and CDF Project Implementation

1. This subsection is concerned with the influence of the principals cost management skills on CDF implementation in your school. Please indicate the extent to which you agree with the following statements on scale of 1-5, where 1=strongly disagree, 2=disagree, 3= neutral, 4=agree and 5=strongly agree

Statement	1	2	3	4	5
Every task touching the CDF project in my school is well budgeted					
Individuals accountable for each task are specified					
I have planning charts completed by breaking down every principal activity into a variety of tasks					
I have a cost control system for CDF project activities in my school					

**PART C: Team Management Skills and CDF Project Implementation**

2. This subsection is concerned with the influence of team management skills on implementation of CDF projects in your school. Please indicate the extent to which you agree with the following statements on scale of 1-5, where 1=strongly disagree 2=disagree 3= neutral 4=agree and 5=strongly agree

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
The project team is acquired based on their previous experience in similar projects					
The project team is trained on expectations before project commencement					
The CDF project team is highly motivated					
The project team is paid on time					
I have a defined communication system followed to communicate with the project team					
Interpersonal skills needed to motivate a project team are a project manager’s most important asset					

**PART B: Risk Management Skills and CDF Project Implementation**

3. This subsection is concerned with the influence risk management skills on implementation of CDF projects in your school. Please indicate the extent to which you agree with the following statements on scale of 1-5, where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree.

<b>Statements</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
I have risk identification checklists in place for the CDF projects in my school					
Risk identification checklists are developed based on historical information					
The risk identification checklist are helpful when identifying potential risk areas					
I help the PMC to monitor and control risks					

Risk probability and impact assessment are carried out for CDF projects in my school					
There are planned risk responses to enhance opportunities and to reduce threats					

**PART C: Time Management Skills and CDF Project Implementation**

4. This subsection is concerned with the influence of principal’s time management skills on CDF project implementation. Please indicate the extent to which you agree with the following statements on scale of 1-5, where 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agree

<b>Statement</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
All project activities for the CDF project in my school are clearly defined					
I have clear estimates of all activity durations					
There is a time control schedule for the project activities					

**PART D: CDF Project Implementation**

5. What is the trend of the following for CDF projects you have implemented in your tenure as principal? Use a scale of 1-5 (1- Strongly disagree; 2-Disagree; 3-Neutral; 4- Agree; 5- Strongly Agree).

<b>Statements</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
CDF projects always complete within the initial allocated budget					
The CDF project final output is of the desired quality					
The CDF projects in my school complete within the given time frame.					

6. What recommendations would you give to CDF committee and ministry of education to improve on project management skills of teachers and specifically school principals?

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**THANK YOU**

## Appendix II: Letter Of Transmittal

### LETTER OF TRANSMITTAL

*Fridah Lusesi*

*Mobile No: 0712 086 345*

*Email: fridahtusesi@gmail.com*

**Dear Participant,**

I am Fridah Lusesi, a student undertaking a Master of Arts Degree in Project Planning and Management at The University of Nairobi. As a partial requirement for the award of the degree, I am carrying out a study on the Influence of Project Management Skills of Public Secondary School Principals on the implementation of Constituency Development Fund Projects: A Case of Public School Principals in Cherangany Constituency.

Through this letter, I request you to kindly spare your time to participate in this research by completing the attached questionnaire. If you choose to participate in this research, please answer all the questions as honestly as possible. In order to ensure that all the information remain confidential, you do not have to indicate your name or the name of your school. The data collected is for academic purposes only.

Kindly contact me if you need any further clarification.

Thank you



Fridah Lusesi

**REG NO: LS0/83465/2015**



**Appendix III: Krejcie and Morgan (1970) Table for Determining Sample Size**

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Note.—*N* is population size, *S* is sample size.

Source: Krejcie and Morgan (1970).