ASSESSMENT OF THE NG-CDF PROJECT MANAGEMENT STRUCTURE ON PERFORMANCE OF NG-CDF PROJECTS IN KENYA; A CASE STUDY OF PUBLIC SECONDARY SCHOOLS IN NORTH MUGIRANGO CONSTITUENCY IN NYAMIRA COUNTY

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21ST NOVEMBER 2022

DECLARATION

This research project is my original work and is not a copy of any work presented by anyone for any award in the university of Nairobi or any other university.

Signature ..... Date 21/11/2022

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

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DEDICATION

This work is dedicated to my father Andrew, mother Briska, my wife Agren and sons Isaac& Andrew for their continued encouragement and support throughout my study period.

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ABSTRACT

This research sought to evaluate the relationship between the NG-CDF project management structure and the performance of NG-CDF projects in Kenya with a focused study of public secondary schools in North Mugirango constituency in Nyamira county. The research adopted a descriptive survey design targeting a population of 387 board of management members in the 42 public secondary schools and the NG-CDF constituency committee in North Mugirango constituency. A sample of 172 members were targeted from the schools' boards and constituency committee. Of the 172 members who received the questionnaires, 139 (80.81%) members responded.

From the results obtained, it was noted that there was a lack of construction management knowledge and skills in most of school boards of management at 61.15%. Secondly, it was noted that a majority of the stakeholders at 59.71%, were not involved in the implementation of the projects. Consequently, it was established that there arose difficulties in monitoring and evaluation of the projects which resulted in overpricing, stalling and eventual dissatisfaction. The results of the findings indicated that the NG-CDF project management structure adopted in the implementation of NG-CDF projects is negatively affecting the performance of NG-CDF projects.

The study recommended a policy formulation where the project implementation teams especially NG-CDF constituency committee and school boards of management would have one fifth of their members being building construction specialists. The specialists will enrich the teams with skills and knowledge that is vital in the running of the construction projects in those schools. The research equally recommended mandatory involvement of all project implementation team members in the process of proposing and prioritization of projects that are important to the community in order to guarantee fairness, openness and transparency in resource management.

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CHAPTER ONE

1.0 INTRODUCTION

A project is a "*temporary endeavor with a beginning and an end, and it must be used to create a unique product, service or result*" (PMBOK (2004) 3rd edition. Many projects are carried out in many parts of the globe but, a few are finished in time. While projects could be rated against completion time, cost, design changes, client's satisfaction, change of scope and finished project quality, lack of any of these parameters contributes to project failure (Khoshgoftar et al 2010)

A project completed devoid of cost variations, meeting quality specifications and within the project period is indeed a desire of every client, project manager and all stakeholders in the construction industry. However, these measurements parameters of a good project are mostly not achieved in many projects especially public/government projects across the globe (Pramen 2017)

Delays in project completion are a source of the bulk of the challenges in executing construction projects experienced by both clients and construction managers. This is associated with risks in the implementation of construction projects that cause cost overruns, strained relations among project stakeholders and even poor-quality products (Kikwasi 2013)

Working around the perceived and real project failure causes and mitigating if not stopping them in total, will go a long way in giving value for money to the government and the stakeholders.

1.1 Problem Statement

Project management involves, the application of processes, techniques, skills and knowledge to achieve specific objectives for a given project. The design of the way those skills, techniques, processes and knowledge are employed into the implementation of the project is termed as project management structure.

For the NG-CDF projects, the project management structure shows how activities are coordinated from the constituency NG-CDF office to the local community where the projects are actualized. The structure shows how projects are proposed, how they are prioritized, how funds are allocated and how the projects executed on the ground.

The study sought to study the implementation structure as a gap in order to determine the relationship between the NG-CDF project management structure (project management skills and knowledge of the BOMs and NG-CDF constituency committee members) on the performance of NG-CDF projects in the secondary schools in north Mugirango in Nyamira county. This was due to the identified project implementation skills knowledge gap that exist on the part of the project implementation teams. The results reached would be replicated elsewhere since the study seeks to assess the NG-CDF project management structure on the performance of NG-CDF projects in Kenya.

In Kenya, schools get their financing for school infrastructure either from the government or contributions from the parents and well-wishers. The government disburses funds through the students' capitation, allocation for infrastructure development and through NG-CDF. These funds are managed by the school boards of management and the NG-CDF constituency committee.

The Board of Managements (BOM) is mandated by an Act of parliament to oversee the general management of all financial, human and physical resources within the public schools in Kenya. The education Act Cap. 211 and Sessional Paper No. 1 of 2005 state that,

"Board of Management should manage human and other resources in schools so as to facilitate smooth operations, infrastructural development and provision of teaching and learning materials".

Boards of Management (BOM) are also charged with the responsibility of managing NG-CDF funded projects. The BOM mandate is to utilize funds sent to schools prudently on behalf of host

communities in accordance with the terms of reference and their mandate (Papa & Obuchere 2019).

Composition of the NG-CDF committees have many members who are endorsed by the area MP even as they may be qualified to be in those committees(Hassam 2013). These staff may not possess proper training to enhance prudence in the running of NG-CDF construction projects. For this reason, NG-CDF constituency committees and project implementation teams don't support projects that benefit the communities but, projects that are beneficial to the area MP. This therefore shows NG-CDF funds have not been successfully applied in the development of school infrastructure either due to poor planning, corruption, misappropriation, political influence or lack of required project management skills. This is a big challenge to the way the NG-CDF management structure would be affecting the implementation of projects.

Maluki, (2018) in his research established that, the MP influenced as to who is appointed into the NG-CDF Constituency committee regardless of their expertise since the only criteria is to reward allies and associates. Further the prioritization of projects by the NG-CDF constituency committee depends on the benefits the MP draws from that project. This is due to limited community participation in project selection. Mbii, et al, (2020), found that many BOMs lacked skills and knowledge for project management since many had primary school education against the guidelines on their selection. Therefore, the ability of these officers to deliver on their responsibilities may not be guaranteed.

The Basic Education ACT, 2013 section 55 States that,

"there shall be boards of management and parent's associations for secondary schools, adult and continuing education centres, multipurpose development training institute and middle level institutions of basic education".

Under the same act section 56 states that,

"*The board will comprise of six persons representing parents, one person representing the county board, one representative of the teaching staff, three representatives of the school sponsor, one person representing special needs and a student's council representative who is an ex-official member. The board may co-opt three members who may have the knowledge and skill required for the running of school affairs and they should not exceed three at any time. The co-opted members do not have a vote while making board decisions."*

Section 57 states that,

"The consideration for appointment to the school boards is limited to; ethnic and regional diversity of Kenyan people, impartiality and gender equality and article 10 and chapter six of the constitution of Kenya 2010."

The cabinet secretary in a SPECIAL ISSUE Kenya Gazette Supplement No.37 on Basic Education Regulations, 2015 PART II B section 6 on Boards of Management proscribes that,

"Qualification for chairpersons of boards should be diploma and KCSE for a pre-primary, primary and an adult education and continuing education centre and in case of a secondary and a middle level college, a degree from a university recognized in Kenya and a KCSE certificate respectively."

These are good qualifications but not sufficient for the performance of all the responsibilities of the boards of management of those schools since there are other skills and expertise that are necessary in carrying out some of their responsibilities.

For instance, issues of infrastructure development are coupled with serious design, procurement, financial evaluation, monitoring and auditing responsibilities. These responsibilities require supervision, managerial and financial skills that are essentially lacking in some of these board's members. Much as the NG-CDF ACT 2015 states that,

"The constituency Development Fund Committee may make appropriate consultations with the relevant Government departments to ensure that cost estimates for the projects are realistic",

it does not make it mandatory for the board to do that.

Studies conducted by researchers (Magoma et al, 2020) indicated that, a number of BOM members did not possess expertise to run schools although they were secondary, tertiary and university graduates. Skills and competencies are acquired through training and workshops

conducted on the members in order to better equip them with the required knowledge in the performance of their duties and responsibilities.

The problems of political interference in the appointments to the constituency development committees which does not consider academic and professional qualifications and appointment of the schools BOM members equally influenced by politics with little regard to professional and academic qualifications creates a big challenge in the execution of the NG-CDF funded programs in schools.

NG-CDF ACT (No. 30 of 2015) confers the powers to the national NG-CDF board to come up with a regulation governing the fund. The NG-CDF regulations, 2016 section 6 states that,

"a person shall be qualified to be appointed to the constituency committee if that person is a citizen of Kenya, an ordinary voter and resident of that constituency, is able to read and write and communicate in English and Kiswahili, meets the requirements of chapter six and that will be available to be involved in the activities of the constituency committee. Those who have served in such a committee earlier or in a leadership position have advantage over others."

Section 8 of the same regulation states that,

"(1) There shall be a chairperson of a Constituency Committee Chairperson. who shall be elected by members from among the persons referred to in section 43 (2) (b), (c), or (d), of the Act, and subject to regulation 6 (2) of these Regulations"?

Any of the members appointed to the constituency NG-CDF committee is eligible for election as chairman by the committee members and therefore there is no higher qualification for the chairman other than the qualifications of other members. This provision does not give any academic qualification but only a mastery of English and Kiswahili which may not be enough qualification for performing the responsibilities of that committee which includes but not limited to evaluation of project proposals and report writing.

In summary, the apparent lack of competencies, skills and qualified project management teams may be attributed to the NG-CDF management structure which eventually leads to failure of the

NG-CDF projects in secondary schools in Kenya for example (Kioko, 2012) in his research observed that, there existed a weak positive relationship between the organizational structure and project implementation at the constituency level. This forms the research problem that the researcher is working to unravel in order to inform the best practice that if adopted will guard against future project failures.

1.2 Research Objectives

Main Objective

I. To evaluate school BOM members and NG-CDF committee members construction technical training as NG-CDF projects performance indicator.

Other Objectives

i. To determine the school BOM and NG-CDF committee members involvement in NG-CDF projects management as a NG-CDF projects performance indicator.

ii. To formulate an implementation framework of NG-CDF projects.

1.3 Research Questions

i. What are the construction projects technical training levels of the schools BOM and NG-CDF committee members as a NG-CDF projects performance indicator?

ii. What is the school BOM members level of involvement on the management of NG-CDF projects in public secondary schools?

iii. Is there an implementation framework for NG-CDF projects?

1.4 Study Hypothesis

iv. H1; The NG-CDF project management structure is the cause of poor performance of projects in Kenya.

v. H0; The NG-CDF project management structure is not the cause of poor performance of projects in Kenya.

1.5 Significance of Research

This study sought to examine the NG-CDF project control structure and how it impacts on the execution of NG-CDF projects in Kenya. From the results obtained, it was noted that, there was lack of construction management knowledge and skills in most of school boards of management at 61.15%. Secondly, it was noted that a majority of the stakeholders at 59.71%, were not involved in the implementation of the projects. Consequently, it established that there arose difficulties in monitoring and evaluation of the projects which resulted in overpricing, stalling and eventual dissatisfaction.

The results of the findings indicated that, the NG-CDF project management structure adopted in the implementation of NG-CDF projects would be negatively affecting the performance of NG-CDF projects. The study recommended a policy formulation where the project implementation teams especially NG-CDF constituency committee and community project implementation teams are required to have one fifth of their members being building construction specialists who will guide in the process of project planning and implementation in those communities or schools. This is going to help in ensuring prudent overseeing of school resources in north Mugirango constituency and other parts of the republic of Kenya aided by diverse skills and knowledge proposed by this study.

The research equally recommended mandatory involvement of all project implementation team members in the process of proposing and prioritization of projects that are important to the community in order to guarantee fairness, openness and transparency in resource management.

1.6 Delimitations of the Study

The study was focused on the NG-CDF construction projects that were running or completed in public secondary schools in North Mugirango constituency of Nyamira county between the year 2018 and 2021. This made it possible for data collection, presentation and analysis to be realized within the research period. It equally facilitated the drawing of conclusions and recommendations in a timely manner.

1.7 Target Population

The target population was BOM committee members of the public secondary schools in North Mugirango Constituency and NG-CDF constituency committee members in North Mugirango Constituency. This was because they are the project implementation teams of NG-CDF projects in the schools at the constituency and formed the source of data for the study. However, the principals of schools were not supplied with questionnaires since their technical and academic qualifications are known and therefore not necessary to spend time on an issue whose outcome is known.

1.8 Limitations of the Study

There were limitations during data collection which were; restricted access to projects and projects documentation in the schools, suspicion from the school principals and some board members on the intention of the study and finally lack of capacity from some board members who would not understand the questions of study. All these were surmounted because a sample of the total population responded and their responses enabled conclusions to be made.

1.9 Scope and organization of study

The study comprises of chapter one which introduces the background of study, problem statement, research hypothesis, research objectives and research questions. The significance of study, delimitations and limitations of study. It also covers the scope and organization of the research

study, definitions of terms used in the study and explanation of abbreviations in the research. This is then followed by chapter two which was centered on the literature review under; causes of project failures, the funding, project management, construction technology, NG-CDF concepts. Chapter two continued with the process of applying for NG-CDF funds, allocation of funds for NG-CDF projects, procurement for NG-CDF projects and implementation and supervision of NG-CDF projects. The conceptual framework is developed out of the gap identified from the literature reviews. Chapter three coverers the research methodology which is broken down into, research design, target population, sample size and sample selection and data collection instruments. In chapter four the research deals with the questionnaire responses that are presented in tables in order facilitate the analysis and interpretation of the data. Chapter five gives the summary of findings which eventually leads to discussions, conclusions and recommendations of the study. The research finally suggests a further study on the areas not covered by the study. The study ends with the references and appendices.

1.10 Definition of Terms

A Project: Is a "temporary endeavor with a beginning and an end and it must be used to create a unique product, service or result". PMBOK (Project Management Body of Knowledge), 3rd edition.

Project Management: the act of putting together skills, knowledge, processes, structure and techniques to facilitate production of a unique good or service for a specific client within a given time period.

Project Completion: the end of all tasks that make up the full program initially designed for execution. This allows for the commissioning of the good or service that has been delivered for use.

Stakeholders: These are the persons, groups or organizations that would be affected either directly or indirectly by a given program either during execution or after completion.

1.10 Abbreviations

NG-CDF: National Government Constituency Development Fund.

BOM: Board of Management

PMBOK; Project Management Book of Knowledge

CDFC; Constituency Development Fund Committee

PMC; Project Management Committee

CDF; Constituency Development Fund

SME; Small and Medium Enterprises

PMC; Project Management Committee

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 INTRODUCTION

This chapter deals with the review of previous literature on construction projects with a special focus being on the impact of project management knowledge, education levels and professional skills of the project management team on failure of construction projects. These will be viewed at the project management stages of initiation, planning, execution and closure of the project. On the other hand, it will focus on the conceptual and theoretical frameworks.

2.2 Causes of Construction Project Failures

The construction projects are largely affected by similar factors across the globe which are unique and specific with different set ups. The factors that affect the completion of projects range from poor planning, delayed payment to contractors & suppliers, change of scope, management of change orders, poor project management skills and weather. The success of construction projects is only guaranteed if the factors are surmounted in the project management cycle.

Cost overruns would be as a result of; Change of material prices, design changes, change of finishes by client, contractor's financial constraints, extra tools and equipment hired outside budget and underquoting by the Quantity Surveyor. The project implementation team's actions could probably influence the extent of the cost overruns on a project. The Contractor bears the highest responsibility followed by the Employer, Quantity Surveyor, Architect, Structural Engineer and Clerk of Works in that order (Wahienya, 2011). These captures the issues of capacity of the contractor and the design team in managing their mandates in the project execution while at the same time considering the variations in the cost of construction materials.

Khoshgoftar et al, (2010) established in his research that, delays in completion of construction projects are caused by communication breakdown between parties involved in the project, finances, delayed payments for completed works and generally lack of proper contract and project management. The factors cited are very key in running any successful construction project. Communication creates the link between the parties involved in the projects whereby promoting synergy in the processes of the construction. Proper communication ensures timely and accurate transfer of information from the employer, design team, contractors and suppliers which is vital for any successful project.

Alaghbari et al, (2007) stated that the causes of project delays were, financial problems and poor coordination in the project implementation process. Construction projects consume a lot of financial resources which should be mobilized early for the proper running of the project. On the other hand, construction projects are complex engagements whose success largely depends on proper coordination of activities without which the project delays. Financial challenges are two ways in that the employer may lack funds to pay the contractor while the contractor might lack finances to secure materials and human labor for the project. Lack of finances either way leads to stalling and termination of many projects.

Al-Kharashi et al, (2009) argued that the delays in completion of projects in Saudi Arabia were caused by lack of experienced and skilled personnel who could range from the design team, project management and even the supervision team and insufficient labor needed for the execution of the construction activities. Any good quality work is only guaranteed by having a competent design team, competent supervision and skilled labor for its execution. Unnecessary delays and poor quality will arise if these competencies are lacking.

Abd El-Razek et al, (2008) established that project delays were largely caused by lack of financial capacity on the contractors and clients. This is evident when the employer does not pay the contactor at the right time eventually crippling the contractor's ability to pay material suppliers. The clients and their agents introduce many changes to the design that increases the scope and occasion cost variations. There is a problem of the contractor and the client reading from different scripts as pertains who would be the cause of project completion delays which eventually escalate the delays. The consultant is unable to mediate between the contractor and the client in order to alleviate the causes of the delays.

Abbasnejad et al, (2013) found that the inadequate knowledge about the complexity of the project displayed by the project team is one of the leading causes of construction project delays. This shows that the client, design team, project manager and stakeholders could be a cause for project delays.

According to (Malala et al, 2014), NG-CDF projects fail due to poor procurement practices, political interference by the area member of parliament, ineffective/uncoordinated project supervision because of overlapping roles of stakeholders. Many suppliers to the NG-CDF projects are SMEs that are not formally registered and neither pay taxes hence lacking capacity to qualify for supply of construction materials. This opens the projects to outsiders for supplies and construction contracts to the disadvantage of the local suppliers and contractors.

Damoah et al, (2015) on their research established the cause of project failures in order high impact to the lowest as follows;(1) Monitoring (2) Corruption (3) Political interference (4) Change in government (5) Bureaucracy (6) Lack of continuity (7) Fluctuation of prices (8) Planning (9) Funds disbursement and (10) Release of payment. This finding was accepted by all the stakeholders in

the construction industry as a true representation of facts. These causes are relatively the same in most developing countries of the world Kenya included.

The literature review shows a clear gap in the area of the stakeholder's knowledge in the construction. This study was centered on the project management structure and specifically NG-CDF constituency committee and school BOMs to establish the relationship between the level of project performance and stakeholders' knowledge in construction projects.

2.3 The Funding Concept

Construction involves deployment of finances that will facilitate the acquiring of construction materials, tools and equipment, labour and consultant's services in the construction process. Design and supervision services are procured ranging from Project Managers, Architects, Engineers and Clerks of Works for the employer. The contractor procures the services of Construction Managers, Site Engineers, Safety Officers, sub-contractors, specialists' service sub-contractors and other labourers for the construction. On the other hand, the materials that are incorporated into the construction works are secured by the finances. Finally, tools, machinery and equipment that are used in the construction processes are acquired by the financial resource. All these construction components others not listed are only accessible through financing and therefore securing finances is required for any success of a construction project.

Eblohimen et al, (2017) in their research in Nigeria found that currency fluctuations, taxation regimes and project financing especially capital projects are largely controlled by the government. World over the largest source of project financing comes from the government and therefore these finances are affected by the factors that come with government policies which are fiscal and tax policies. If a project is not completed within the project period, then it is likely to face the effects of the changing tax regimes and fiscal policies of a country.

Langat, (2015) in his research arrived at a major finding that there was a correlation between project completion rate and availability of funding. This represents a majority of construction projects that delay and eventually fail due to either lack of financial resources, insufficiency of finances or mismanagement of the project finances.

Abdul-Rahman et al (2009) concluded that unchecked cash flows, late payments for work done, insufficient project financing, unstable financial markets have an effect on project completion rate in that order. To remedy these the employer has to plan his finances well in advance without which failure becomes eminent.

The financing of projects is the backbone of project success and this does not come easy. The employer must take deliberate steps towards making finances available at every stage of the project implementation cycle to guarantee smooth implementation which will allow completion within time, budget and quality.

As per the NG-CDF ACT NO.30 OF2015 Part II section 6 states that,

"(1) The Board shall, with the approval of the relevant Committee of the National Assembly, allocate funds for every constituency in each financial year in accordance with section 34. (2) Once funds are allocated for a particular project, they shall remain allocated for that project and may only be re-allocated for any other purpose during the financial year with the approval of the Board. (3) If for any reason a particular project is cancelled or discontinued during the financial year, funds allocated for such a project shall be returned to the Fund and credited to the account of the constituency from which the funds were withdrawn. (4) Unspent funds shall be allocated to any eligible project and such project may be new or ongoing at the end of the financial year. (5) For the avoidance of doubt, a return as set out in the First Schedule shall be made for the current financial year and every previous financial year on which some funds remain unspent".

This calls for serious costing of projects by the project implementation teams to avoid any short falls which may not be easily appraised due to the lengthy process that is involved in the identification, selection allocation of funds and disbursement for project implementation.

2.4 The Project Management Concept

A project is a composition of activities organized sequentially with defined start and finish dates having specific objective to be achieved and a budget to actualize it (Duah et al, 2017). Project management is the incorporation of processes, methods, skills, knowledge and experience to a project to achieve specific objectives as per the Project concept note. Project management is controlled by time and budget in achieving the required deliverables (APM Body of Knowledge 7th edition, 2019).

The application of project management principles in the management of construction projects is with a sole intention of deliveries primarily on completion of the project on time, on budget and in the best quality. If the principles employed in managing a construction project do not achieve the three primary success factors, then the project fails. These principles of project management are to be applied throughout the entire project cycle in order to achieve success. If any of the project cycle stages is not well managed, it can cause a bottle neck that will lead to project failure. A project management life cycle comprises of 5 phases including initiation, planning, execution, monitoring, and closure that combine to turn a project idea into a working product (PMBOK)

The cycle starts by; the proposed project need, problem or opportunity of the project, employ the method to meet the need, solve the problem and seize the opportunity identified. During this step, the project objective is visualized, a determination is made as to whether the project is feasible, major deliverables for the projects are identified. These considerations help to decide which project has a worth return to inform a decision of investing in it.

Planning: The larger project is broken down into smaller elements, establish the execution units, and a schedule of works prepared for the execution of project assignments. Work elements are

created out of the whole project system and drawing a program of their delivery. The elements broken down are organized in a manner that allows efficient and effective execution.

Execution; The elements broken down at the planning stage are allocated to the construction team. The project concept and design are actualized into a good or service that was thought of at the initiation. The tasks are performed within the confines of time, cost and quality.

Closure: This marks the end of the project where the product can now be evaluated against the expectations. The resources are freed for other projects elsewhere and certificates are sought for the sake of getting permission for occupation. The service providers train staff on the operation of the equipment in the project. The water and power services are closed and accounts settled to avoid misuse of those services. Success stories from the project are recorded for future use and any setbacks are avoided in future projects.

Monitoring and evaluation cannot be considered as a stand-alone stage, at every stage of the project cycle there must be monitoring and evaluation. This is simply the comparison of outcomes with the expectations. It helps to gauge the deviation and institute measures to bring the process back to track.

Close observation of the project progress is allowed in order to determine where necessary changes are to be initiated until the objectives of the project are achieved DEV, P., (2015). Review of the plan is considered at this level, deviations from the original plan is gauged so as to institute changes if they are considered necessary for the functioning of the final product. Project management is reflected at every phase of the project same a monitoring and evaluation in order to guarantee success.

2.5 The Construction Technology Concept

Tatum, C.B., (1988) defined construction technology as, “the collection of innovative tools, machinery, modification, software, etc. used during the construction phase of a project”. The effectiveness and efficiency of the resource employed in the projects largely depends on the construction technology applied in its implementation. When Machines are applied well in construction, the contractor can save on, time and money hence contributing to timely completion of the project and construction budget control.

Construction technology is a collection of innovative tools, machines, software and modifications that are applied during the construction phase to enhance advancement in the field of construction methods including semi-automated construction equipment Rajendran et al (2012). Construction technology is applicable on different projects, ranging from small residential apartments to industrial buildings. Construction technology guides any serious construction practitioner into knowing which machine, equipment or technique is required for which project in the business of construction in order to improve efficiency and effectiveness.

It is clear from the references cited that construction technology is a collection of technologies, method, innovations, machinery and software that are employed during construction for advancement of good practices in construction. Construction technology creates an environment that will enable or boost the success in the completion of projects in time, best quality and within budget.

2.6 The NG-CDF Concept

Constituency Development Funds (CDFS) are funds given to parliamentarians from the central government for expenditure in their electoral areas or constituencies, also called electoral districts

in some regions. CDFs were first adopted in India before spreading to other countries of the world (Blair, H., 2017).

In the year 2003 when Kibaki became the president, he introduced the CDF in order to spur development in rural areas in the sectors of education, health, water and roads infrastructure that were otherwise lagging behind due to centralized development practiced by earlier regimes (Namano, B. W., (2015).

The sole intention of CDF is to try and decentralize resource to the rural areas of countries and ensure equitable distributions of development since the constituencies are fairly distributed. This in return allows the locals to be directly involved in making decisions of what they need to develop for the good of their communities across the country.

The Fund (CDF) was actualized through an act of parliament famously known as the constituency development fund ACT 2003. The objective of the ACT was, to initiate development at the local constituencies in order to alleviate poverty in those areas. The ACT sought to allocate 2.5% of the total revenue collected by the central government and distributed equitably to the constituencies for infrastructure development in education, water, roads and health.

The CDF ACT 2003 has undergone several amendments to make it relevant with the changing times. The CDF ACT 2003 was amended in 2007 and eventually repealed and replaced with the CDF ACT 2013. This Act was unconstitutional and thereby replaced by the national Government Constituencies Development Fund Act, 2015 (NG-CDF). So, all suggestions about the old CDF only apply to events before the end of the 2015/16 financial year. The amendments were necessitated by the need to align the fund with the new constitution 2010. This was to align the

law governing CDF with the devolution concept as spelt out in the new constitution (Mbavati, A. K., 2017).

With the 2.5% of the national budget given to NG-CDF, imperatively there has to be the right structures in the utilization and management of the fund. This is made possible by the establishment of the NG-CDF management structures that are charged with the responsibilities of ensuring that the fund achieved the intended purpose.

2.7 Process of Applying For NG-CDF Funds

The NG-CDF constituency committee is expected to hold barazas with the local citizens in their respective wards periodically in open forums to develop project proposals. The NG-CDF constituency committee list the proposed projects in order of priority together with their budgets and submit to the NG-CDF Board for approval. The spirit behind NG-CDF is to allow the common village men and women contribute to the development programs by proposing programs that they think are necessary and important for their social economic development.

The NG-CDF Act of 2015 part iv section 27 provides the process of identifying and submitting of project as follows;

"(1) the chairperson of the constituency committee shall, within the first year of the commencement of a new parliament and at least once every two years thereafter, convene open forum public meetings in every ward in the constituency to deliberate on development matters in the ward and in the constituency. (2) The Constituency Committee shall deliberate on project proposals from all the ward in the constituency and any other projects which the constituency committee considers beneficial to the constituency, including joint projects with other constituencies, consider the national development plans and policies and the constituency strategic development plan, and identify a list of priority projects, out of which the list of projects to be submitted in accordance with the Act shall be drawn from. (3) The list of proposed constituency-based project to be covered under this Act shall be submitted by Constituency Committee to the NG-CDF Board".

The process begins with public participation facilitated by the chairperson of the NG-CDF constituency committee at the ward level where the ward residents give their project proposals.

The proposal at the ward barazas is scrutinized by the constituency committee and a priority list drawn depending on the budget and economic viability of each proposed project. The prioritized projects are then sent to the NG-CDF board for their consideration, approval and fund allocation.

2.8 Allocation of Funds For NG-CDF Projects

The NG-DF ACT 2015 stablishes a mechanism through which the project proposals from the constituency committees are scrutinized by the NG-CDF board to ascertain their eligibility and affordability depending on availability of resources. Once the criteria of allocation of funds is met, the board allocates funds for the projects.

According to section 31 of the NG-CDF ACT 2015,

"(1) the list of projects received by the Board pursuant to section 27 shall be tabled for review at a meeting of the Board. (2) The Board shall scrutinize and approve for funding those projects proposals that are consistent with the Act. (3) Where the Board does not approve a proposal submitted to it under this section, it shall refer the matter to the Constituency Committee giving reasons as to why it has declined the proposal".

This marks the last stage of the projects approval process where the projects are gauged against the requirements of the ACT and the available budgets. If all the requirements are met then approval is granted. However, if requirements are not met, the proposals are rejected by the board and therefore no disbursement is allowed. For the approved projects, money is disbursed through the constituency office for further conveyancing to the areas or institutions that proposed the projects for their implementation.

2.9 Procurement for NG-CDF Projects

Procurement is the process of identifying a need for a good or service, developing the requirements and specifications, placing an order for the item, receiving the quotations from suppliers, evaluating the tenderers against the set specifications and prices, awarding the tender to the winners which allows them to supply the procured goods or services. The supplied goods or

services are paid for after verifying their quality and quantity. All these processes follow the provisions of The Public Procurement and Disposal ACT 2005 Cap. 412A. while dealing with a public institution.

Section 37 of the NG-CDF ACT 2015 provides that,

"Procurement of goods and services relating to projects under this act shall be procured in accordance with the provisions of the Public Procurement and Disposal Act, 2005 (Cap. 412A)".

Lewa, P., (2010) observed that, procurement is an important function of any government. The goods and services acquired in the procurement process should be from the right source, in good quality, in the right quantity and at the right price while meeting the required specifications and specific need. The importance of the procurement regulations is that it guarantees transparency, honest and fairness in the management of procurement in government.

For any government institution to acquire goods, service or works, the procurement Act 2005 Cap 412A must always be the reference point in the whole process. This creates order and a culture that allows the citizens of a country to compete for business fairly without feeling discriminated against in any way.

Citizens of any country need to understand the basics of procurement and how they can play a part in ensuring that public procurement takes place in a professional manner. On the other hand, procurement entities need to comply with the procurement laws and regulations. In Kenya, the public procurement processes are skewed to the disadvantage of the majority because of corruption, nepotism and political influence. However, the laws and regulations advocate for transparency, fairness and impartiality in all public procurement processes for the benefit of all regardless of age, gender, race, religion, disability or social status.

Constituency Development Fund (CDF) procurement procedures have not been effectively implemented because, the Public Procurement and Disposal Act (2005) and the 2006 Regulations did not make provisions for CDF procurement when they were enacted. However, through a special Gazette notice (Supplement No.63, Legal Notice No. 141), the Public Procurement and Disposal (Amendment) Regulations issued on the 18th September 2009, made provisions for certain important aspects of procurement for constituencies and local authorities. These provisions relate to contractors and membership structures of the various committees. The amendment made two important provisions;(i) constituencies and local authorities shall be regions where citizen contractors or vendors or suppliers who are located and operate in those regions, shall be given exclusive preference when participating in procurement using CDF and Local Authority Transfer Funds, except where it is established that local capacity is not available (section 39{4 (c)} of the Act). However, the local communities are ignorant of their rights in the procurement processes and needs a lot of awareness in order to appreciate and participate fully in the procurement processes especially on the NG-CDF projects.

Ndanyu, (2019) in his research established that, the observance of the public procurement law and regulations allowed competition, openness, impartiality, equal access, morality and ethics had positive contribution to the implementation of CDF funded projects in schools. Additionally, the principle of open tendering where every contractor/supplier regardless of age, gender, disability was allowed to tender through tender advertisement. This worked well in the ensuring effectiveness in the implementation of those CDF projects in schools.

With strict observance to the procurement laws and regulations, no doubt the NG-CDF project like any other will be managed well and efficiency and effectiveness achieved as envisioned by the NG-CDF ACT 2015.

2.10 The Tendering Process for NG-CDF Projects

According to section 46 of the Ng-CDF ACT of 2015,

"(1) The Constituency Development Fund Committee may make appropriate consultations with the relevant Government departments to ensure that the cost estimates for the projects are realistic. (2) The constituency Committee shall rank the projects in order of priority and whenever, in the opinion of the Board, the total cost of the projects listed exceed the ceiling for a particular constituency, then the order in which they are listed shall be taken as the order of priority for purposes of elections of funds, provided that on-going projects shall take precedence over all other projects."

The only route towards preparing and having realistic costs for the projects is through preparation of tender documents. The tender documents guide the procurement process in order to arrive at the right contractors and suppliers. As the NG-CDF ACT 2015 states that,

"The constituency Development Fund Committee may make appropriate consultations with the relevant Government departments to ensure that cost estimates for the projects are realistic",

part of the tender documents is, the bill of quantities which give all the items and elements involved in the project, their rates and quantities. These Bills of quantities are prepared by the relevant government departments in

the districts and thereafter used for the procurements of goods and services for the NG-CDF projects in the constituencies.

Procurement is the method through which property, works, goods and services are sourced for a project. Any other criterion of hiring, renting of leasing either machine or office contractually falls under procurement. NG-CDF funded projects are public and therefore follow government procurement regulations. Caution must be exercised while sourcing for goods and services for NG-CDF projects without which loss of funds will easily occur. There are parameters set out by the NG-CDF procurement regulations to guide on which committee procures what for those projects.

Tender committees are supposed to be set up for the sake of the tendering by the NG-CDF committees but mostly this is not followed. Non conformity with the public procurement and disposal Act 2005 and NG-CDF Act 2015 and regulations 2016 is a violation of the procurement laws.

The NG-CDF is governed by regulations which must be observed at all times in conformity with its objectives. Tendering and procurement are guided by certain thresholds in terms project cost, the implementing tender committees and the procurement method allowed for each category. Gikonyo, W., (2010), provided a summary of a procedural guide on the procurement thresholds and tendering process as shown in the table below;

Table 1: CDF Procurement Thresholds

	Capping (Ksh)	Tendering committee	Method of procurement
1	100,000 and below	All tender committee	Direct Procurement
2	100,000 - 5,000,000	All tender committee (depending on the project being implemented)	Request for quotation
3	5,000,000 - 10,000,000	CDTC and the DPTC (if the project is crosscutting the constituencies)	Open tender
4	Above 10,000,000	Sub county Projects Tender Committee	Open tender

Steps in the NG-CDF Tendering process

1. Tender Documents preparation; the exercise comprises the development of the bills of quantities from the architectural and engineering drawings. The accompanying tender documents are developed which facilitate the invitation of bidders for the works. These may include material schedules and specification.
2. Floating of tender; advertisement of tender is done depending on the tendering method. It should be widely circulated in case of open tendering specifying the needed contractor/supplier qualifications, project description, dates of site visit, tender closing date and tender opening dates. The tender closing date should include time of closing.
3. Bid submission; the tenderers should be conscious of the closing date and the time to avoid being disqualified for late submission. On submission of bids the bidder should record in the bids register and their bids secured in a safe tender box. The bidders have a right to view the bids register to be aware of who are their competitors.

   Where either the NG-CDF constituency committee member or the project implementation committee member has a conflict of interest on the tender, they have to declare and not participate in the tendering process.

4. Tender Opening; the tender opening should be done any time after tender closing. All bidders should be allowed to attend the opening and review the bid submission register to ascertain the authenticity of that register. The bidders' quotes are made public together with their compliance read and put in the minutes of tender opening meeting. All pages of the bid documents should be verified and signed against.

5. Technical Evaluation the tender committee compares the prices and presents them as price schedule. Any specialized items that the committee may not have capacity to evaluate, they can liaise with the relevant government departments for that evaluation.
6. Consideration and award; The agenda for each procurement item is prepared after proper analysis of the bids and subsequently tabled before the committee for adjunction and award. The items agenda is prepared by the secretary to the tender committee. Awards should be made to the lowest evaluated bidder for standard off-the-shelf items, and to the best evaluated bidder for specialized items. Decisions are reached by consensus and are subject to collective responsibility and should be duly recorded in the minutes. No procurement decisions should be made outside the Tender Committee.
7. Offer Notifications; The winning bidder should be notified in writing and should confirm acceptance in writing in case of contracts whose value is higher than Ksh 100,000. Unsuccessful bidders should be notified in writing at the same time. Procurement regulation give unsuccessful bidders 14 days to challenge the award of a tender. A summary of the award, including the name and address of the bidder and contract price should be placed on the notice board at the office of the procuring committee. Tender committee may grant permission for an urgent order in case of emergencies, but the decision must be recorded in the minutes. In this case, the tender is awarded immediately without giving losers the opportunity to appeal the decision.
8. Contract Agreement; The procuring entity must now officially sign to a consent with the winning bidder after having signed an acceptance on award notification. The consent here is the contract agreement which is mandatory for contracts whose value exceeds Ksh. 100,000. This agreement clears specifies the quality and quantity of goods and services to be delivered

and the date to be delivered. In the contract agreement, the responsibilities and obligations of each party are clearly spelt out to avoid future conflicts.

9. Delivery of goods or services; The delivery of goods or services is the obligation of the supplier or contractor and it is dependent on the contract entered by the consenting parties. All goods and services are received on checking their quality and quantity against the contract specifications.
10. Goods and Services quality control; payments for the goods and services is the obligation of the employer. However, the employer has a right not to pay for goods and services other than the ones ordered for as per the contract. This leaves the employer and his agents with the responsibility of checking the quality and quantity of goods and services before release of any payment to the contractor/ supplier.
11. Payments to contractors/suppliers; For all public funded projects, payments are approved through a resolution of minutes. The committee is guided by signed payments certificates receipts and signed delivery notes since not every member of the committee will be checking quality and quantity of goods and services. With all these documentations secured, the contractor or supplier is paid for work done or service offered.

    Tendering would either be open or closed depending on the value of tender, the complexity of the works/service and the urgency of the required good or service. For NG-CDF works, open tendering is preferred since it allow competition on an equal footing especially for local contractors. This tendering is the ideal for public projects and therefore supposed to be strictly followed when tendering for NG-CDF funded projects. However, in practice this is not followed and largely the NG-CDF project management structure is to blame for the unprocedural and unregulated tendering.

2.11 Implementation/ Supervision Of NG-CDF Projects

The NG- CDF ACT 2015-part vi section 36 provides that,

"(1) Projects under this Act shall be implemented by the project management committee appointed in accordance with the regulations made under section 57, with the assistance of the relevant department of Government and all payments through cheques or otherwise shall be processed and effected in accordance with government regulations for the time being in force."

OMOLO, A., (2009), established that, the entity charged with the responsibility of running a CDF funded project is a creation of the CDF amendment Act 2007. This project implementation team could either be appointed at the project inception, elected by the stakeholders or be an existing team; example of a secondary school board of management. Project Management Committees rank at the lowest level of project management structure of the NG-DF project management structure. They originate the project proposals and budgets for CDF projects in collaboration with the NG-CDF Constituency committees. They play an important role in the whole project cycle where they not only initiate the projects but also monitor and evaluate them.

Ngondo, D.M., (2014) in his research concluded that, low education, leadership inabilities, inadequate technical support was common on the NG-CDF project implementation committees. They were neither able to administer the funds prudently nor could they decide the site for projects due to political interference. All these challenges tend to undermine the timely completion of NG-CDF projects. Smooth implementation of projects is largely influenced by the skills of the PMCs of each project.

Gikombi, et al, (2018) in their research studies noted that, the effectiveness of the project relies heavily on the level of stakeholder involvement in the project. Stakeholders have to be fully involved at every stage of the project to tap into their contribution in the success of the project. When the stakeholders are sufficiently involved, they easily own the project and therefore the implementation is made easy and possible.

Machoka, (2017in his research findings concluded that, there was a gap in the information communication technology systems in the running of CDF projects. This did not work well in improving project management regardless of having programmes on capacity building, effective procurement management and supply logistics for the projects. The study also found that, Government policy has a big bearing on how public sector practices affect NG-CDF projects

PMCs should therefore possess the knowledge, education, skills and expertise that will enable them to preside over the project management cycle form initiation to closeout in order to achieve success. The implementation of majority of NG-CDF projects fails as argued by many studies as a result of inadequate knowledge & skills and education attributed to members of either the NG-CDF constituency committee or PMCs members, charged with the mandate of running projects on behalf of the institutions and communities.

2.12 Conceptual Framework

The performance of NG-CDF projects depends on, project management knowledge of the project management committees and level of stakeholder involvement in the execution of the projects. The level of education, the type of training and level of training show the project management knowledge of PMCs. Stakeholder involvement is considered at projects proposing, tendering, supervision, closeout and audit stages. With good project management knowledge and stakeholder involvement, the project performance would be greatly improved.

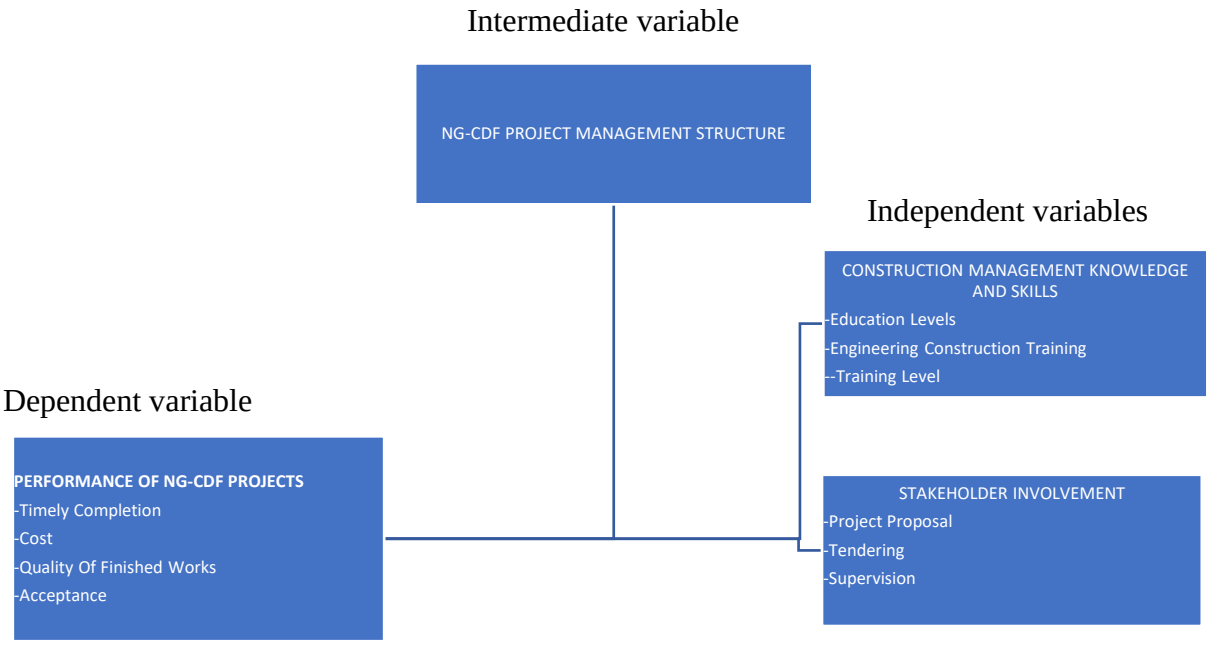

Figure 1 COCEPTUAL FRAMEWORK

CHAPTER THREE

3.0 RESEARCH METHODOLOGY

This is a step-by-step approach adopted by a researcher to solve the research problem. It is a science of studying how research is scientifically carried out. It entails the study of steps that are generally adopted by a researcher in studying his research problem along with the logic behind them (Kothari, C.R., 2004).

This research adopted a methodology broken down into; research design, target population, sample size and sample selection, data collection instruments, data collection procedures, data presentation methods and data analysis techniques.

3.1 Research Design

Jovancic, (2020) suggested that, research design is a structure of arrangements and techniques to be incorporated in the research process. It is tailor made depending on the research topic, objectives of study and the problem of study. Any research design needs to be suitable for the research type since not all research types can use same research design.

Christensen et al, (2011) described research **design** as a systematically arranged technique employed by a researcher, or a scientist to carry out a scientific study. This is the arrangement of already identified elements, studied information and collected data into a coherent version that can be studied by others.

The research design must take into consideration the well-planned methodology and research type in order to arrive at a reliable outcome. Unless there is a good procedure pre-planned that guides the steps to be followed in the research study then the outcome may not be answering the research questions and therefore a research design becomes a necessity.

This research adopted a descriptive survey design. This was concerned with describing, recording, analysing and reporting of results. It was suitable since it gave the description of the situations, events and conditions of study problem. The research study delt with the NG-CDF project management structure and its effect on performance of NG-CDF projects in public secondary schools in north Mugirango constituency. The questionnaires were structured to enable the respondents to pick answers out of list in form of a Linkert scale.

3.2 Target Population

Bick et al (2021) define target population as *"the total group of individuals from which the sample might be drawn".*

This is the group that is involved in a survey for data collection. These are the characters or the people who act as the primary source of data for the research investigation.

The research had public secondary schools in north Mugirango constituency as the target population and north Mugirango constituency NG-CDF committee. The 42 public secondary schools in north Mugirango formed the target population for the research study together with the constituency NG-CDF committee. The project management team which consists of the constituency NG-CDF committee members and the school's B.O.M members were questioned by the researcher. These groups were involved in the study since they are directly and indirectly involved in the running of construction projects in the schools.

3.3 Sample Size and Sample Selection

Ghaleb et al, (2006) describes Sample size as the number of individuals or persons included in a research study to represent a target population. This is the total number of respondents whose responses are considered in drawing conclusions in a study. The sample size could be selected to represent age, gender, profession and households of the entire population. This is a proportion of

the total number of the target group that will be included in the survey in order to produce a representative view or opinion of the group on a given subject.

Sampling is a method of selecting a number of participants who will be a representation of the whole group in seeking for some information about a given variable. Stratified random sampling was employed in order to find a representative number from the groups who were involved in the surveys and questionnaires. The sample size depended on the number of public secondary schools in north Mugirango constituency while sampling or sample selection will be four members of each school board. The random sampling was done after the questionnaire's responses were received then, four responses were picked indiscriminately from every representative school and the constituency NG-CDF committee

The Krejcie & Morgan table is a table that has a list of target populations of different sizes with their respective sample sizes that are applied in research. The lists in the table are developed using a sample size determination formula that is shown below;

Formula for determining sample size

$$s = X^2NP(1-P) \div d^2(N-1) + X^2P(1-P)$$

s = required sample size.

X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).

N = the population size.

P = the population proportion (assumed to be .50 since this would provide the maximum sample size).

d = the degree of accuracy expressed as a proportion (.05).

Source: Krejcie & Morgan, 1970

Out of the formula provided above, the table known as Krejcie & Morgan table was developed.

The Krejcie & Morgan Table is shown below;

Table 1: Table for Determining Sample Size for a Finite Population

N	*S*	*N*	*S*	*N*	*S*
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	1000000	384

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

Source: Krejcie & Morgan, 1970

NOTE: There was no need of using the formula since the table of determining sample size has all the provisions required to arrive at the sample size.

The population in my research was 42 schools with 9 members of each school board. Therefore, the total population is 42×9=378 and 9 members of the NG-CDF Constituency committee totals to 387.

It therefore means the population size is 387 and the sample size from the Krejcie & Morgan Table would be 191-196. The required number per school was 4 representatives. A sample size of 4 returned questionnaires were randomly picked from each school board responses and constituency NG-CDF committee members for onward presentation and analysis.

3.4 Data Collection Instruments

According to Minnaar & Heystek (2013), data-collection instruments mean,

"*tests, questionnaires, inventories, interview schedules or guides, rating scales, and survey plans or any other forms which are used to collect information on substantially identical items from 10 or more respondents"*

It therefore means that the interviews, questionnaires and surveys through which respondents are reached in order to answer a research question or questions is what constitutes data collection instruments.

These are the means through which the sample population will be contacted to provide information for the research study. Quantitative and qualitative methods were used in the study through the application of surveys. Surveys were designed to instigate the desired responses suited for the study goals.

The design of questionnaires borrowed from the Linkert scale format intently making it easy for the population to answer. This gives multiple answers for any question which makes it easy for the respondents to participate in a research study.

CHAPTER FOUR

4.0 DATA PRESENTATION, ANALYSISS AND INTERPRETATION

INTRODUCTION

The chapter involves the processes of putting the collected information in the formats that could enable the researcher to properly analyze it and make relevant conclusions from the resultant statistics. Data is presented in charts, graphs and tables in form of texts, words and figures which is finally analysed to transform it into a format that would be understood by readers of the research work.

4.1 Data Presentation

This is a technique of using charts and graphs to communicate how sets of data relate to enable a reader make a decision about a given phenomenon, condition or situation Crowther et al. (2011). The procedure used depends on the format, the analysis technique applied and the resultant information desired Weissgerber, et al (2015). How presentation is done could be a pointer to either success or failure to relay information to the readers. Data presentation could be by texts, tables of graphs. In this research, data was presented in tables in form of words and numbers in columns and rows.

4.2.0 Respondents distribution

Table 4.0 **Rate of response**

Item	Target	Response	% Response
BOM /NG-CDGF constituency committee members	172	139	80.81%

The researcher targeted 42 public secondary schools with a population of 378 board members and 9 NG-CDF constituency committee members. Four responses were randomly selected from each school and from the NG-CDF constituency committee. The responses were from 34 schools and the constituency NG-CDF committee. The sample size was 172 members but 139 responses were received in this research which represents 80.81% response. The 80.81% response rate is a good return that supported the reliability of the data collected.

4.2.1 Board/Committee Designation

Table 4.2 **Board/Committee Designation**

Designation	Frequency	Cumulative frequency	% Frequency	Cumulative% frequency
Chairperson	22	22	15.83	15.83
Vice chairperson	11	33	7.91	23.74
Treasurer	15	48	10.79	34.53
Member	91	139	65.47	100
Total	139		100	

The statistics in the tables indicates that, of the 134 board members who answered the research questions, 15.83% were chairpersons (22), 7.91% were vice chairpersons (11), 10.79% were treasurers (15) and 65.47% were ordinary board members (91). These statistics shows a representation of every group in the school boards except the secretaries to the boards. The

secretaries were not part of the study since they are the school principals and their academic qualifications are known and therefore not necessary to study on their academic and technical qualifications. Majority of the respondents were ordinary board/committee members at 65.47% .

4.2.2 Education level

Table 4.3 **Education Level**

Education Level	**Frequency**	**Cumulative Frequency**	**% Frequency**	**Cumulative % Frequency**
Primary	3	3	2.16	2.16
Secondary	50	53	35.97	38.13
Tertiary	39	92	28.06	66.19
University	47	139	33.81	100
Not educated	0	139	0	100
Total	139		100	

Table 4.3 indicates that, 2.16% of the board/committee members were primary school leavers (3), 35.97% were secondary school graduates (50), 28.06% were tertiary college graduates (39), 33.81% were university graduates (47) while none was uneducated. The data indicates that a minority 33.81% were university graduates while majority 66.19% did not go to university.

4.2.3 Possession of construction project skills.

Table 4.4 **Skill level**

Skill level	Frequency	Cumulative frequency	% Frequency	Cumulative % frequency
Not skilled	85	85	61.15	61.15
A little skilled	30	115	21.58	82.73
Skilled	22	137	15.83	98.56
Highly skilled	2	139	1.44	100
Don't know	0	139	0	100
Total	139		100	

The data in the table 4.4 shows that, 61.15% of the board/committee members did not possess any construction management skills (80), 21.58% were a little skilled (30), 15.83% were skilled (22), 1.44% were highly skilled while there was none who did not know the level of their skill. Majority of the board/committee members are completely unskilled in construction management.

4.2.4 Possession of any training on building construction.

Table 4.5 **Training in building construction**

Training	Frequency	Cumulative frequency	% Frequency	Cumulative % frequency
Not trained	132	132	94.96	94.96
A little bit trained	0	132	0	94.96
Trained	6	138	4.32	99.28
Highly trained	1	139	0.72	100
Don't know	0	139	0	100
Total	139		100	

The table above shows that 94.96% were not trained in any building construction course or related courses (132), none was a little bit trained, 4.32% were trained (3), 0.72 % were highly trained (1) while none was unable to state their level of training in building and construction. The information indicates that, almost all 94.96% board/committee members do not possess any building construction training or knowledge.

4.2.5 Area of training in construction.

Table 4.6 **Specialization**

Specialization	**Frequency**	**Cumulative frequency**	**% Frequency**	**Cumulative % frequency**
Engineering	3	3	2.16	2.16
Architecture	0	0	0	2.16
Quantity surveying	0	0	0	2.16
Construction management	3	6	2.16	4.32
Building construction	0	0	0	4.32
Building economics	1	7	0.72	5.04
Not trained	132	139	94.96	100
Total	139		100	

Table 4.6 shows that when members were asked about their specialization in the building construction industry, 2.16% said that, they were trained in engineering (3), there was none trained in architecture, building construction or quantity surveying, 2.16% were trained in construction management (3), 0.72% were trained in building economics (1) while 94.96% were not trained in any of the building construction course or related course (132).

4.2.6 Qualification Level

Table 4.7 **Qualification Level**

Qualification Level	**Frequency**	**Cumulative frequency**	**% Frequency**	**Cumulative % frequency**
Artisan certificate	3	3	2.16	2.16
Certificate	0	3	0	2.16
Diploma	3	6	2.16	4.32
Degree	1	7	0.72	5.04
Masters	0	7	0	5.23
PhD	0	7	0	5.04
Not trained at all	132	139	94.96	100
Total	139		100	

Table 4.7 shows that 2.16% had an artisan certificate qualification (3), same percentage had diploma qualification, 0.72% had degrees qualification (1), none of the respondents had a certificate qualification, masters or a PhD qualification in any building construction or related courses. 94.96% of the respondents had no training in any building construction or related courses and therefore had no question to answer as to what level of training they had on those areas (132).

4.2.7 Tender documents preparation for tendering.

Table 4.8. **Preparation of tender documents for tendering.**

Tender documents preparation	Frequency	Cumulative frequency	% Frequency	Cumulative % frequency
Not prepared	52	52	37.41	37.41
Don't know	50	102	35.97	73.38
Prepared	37	139	26.62	100
Total	139		100	

The table shows that when members were asked whether tender documents were prepared before tendering, 37.41% returned a no answer (52), 35.97% said they did not know whether the documents were prepared (50), 26.62% agreed that tender documents were prepared (37). This shows that majority of members were either certain of the fact that tender documents were not prepared or did not know whether the tender documents were ever prepared at 73.38% or 102 out of 139. This speaks to the fact that; the costing and cost management of the projects was only overseen by a small minority of the board/committee members.

4.2.8 Source of tender documents for the project.

Table 4.9 **Who prepared the tender documents for tendering.**

Who prepared tender documents	Frequency	Cumulative frequency	% Frequency	Cumulative % frequency
Hired technical team	2	2	1.44	1.44
Sub-county office	21	23	15.11	16.55
Team brought in by MP	57	80	41.01	57.56
Don't know	59	139	42.44	100
Total	139		100	

In table 4.11 respondents were asked on who prepared tender documents and 1.44% said is a technical team hired by the school (2), 15.11% said it was a team from the sub-county office (21), 41.01% said it was a team brought in by the MP (57) while 42.44% did not know who prepared or whether the documents were prepared (59).

4.2.9 Use of tender documents in procurement.

Table 4.10 **Reliance on tender documents in procurement**

Were the tender documents used.	Frequency	Cumulative frequency	% Frequency	Cumulative % frequency
Not used	27	27	19.42	19.42
Used	38	65	27.34	46.76
Don't know	74	139	53.24	100
Total	139		100	

Table 4.10 shows that when a question was asked on whether tender documents were used in the tendering process, 19.42% responded in the negative (22), 27.34% responded in the affirmative (38), while 53.24% did not know whether tender documents were used in the tendering process (74). It therefore indicates that, 72.66% either did not know whether tender documents were relied on in the procurement or were they not relied on.

4.2.10 Tender processes in the project.

Table 4.11 Following of the tender processes

Were tender processes followed.	Frequency	Cumulative frequency	% Frequency	Cumulative % frequency
Not followed	34	34	24.46	24.46
Followed	39	73	28.06	52.52
Don't know	66	139	47.48	100
Total	139		100	

Table 4.11 shows that when the respondents were asked whether tender processes of floating tenders, receiving quotes, evaluation of tenders and awarding tender were followed, 24.46% responded in the negative (34), 28.06% responded in the affirmative (39) while 47.48% did not know whether the processes of tendering were followed (66). This shows that, 71.94% of board/committee members either were ignorant of the procurement processes or they knew the processes were all together not followed.

4.2.11 Level of involvement in the planning of the project.

Table 4.12 **Level of involvement**

Level of involvement	Frequency	Cumulative frequency	% Frequency	Cumulative % frequency
Never involved	71	71	51.08	51.08
Involved a little bit	8	79	5.76	56.84
Involved	9	83	6.47	63.31
Fully involved	39	122	28.06	91.37
Don't know	12	134	8.63	100
Total	139		100	

The table above shows that, 51.08% of the board/committee members were not involved in planning and implementation of projects in their schools (71), 5.76% were a little bit involved (8), 6.47% were involved (9), 28.06% were fully involved (39), 8.63% did not know whether they

were involved (12) in the planning of the projects in their schools. This level of involvement negates the principle of public participation in the running of public funded projects.

4.2.12 Reason for non-involvement.

Table 4.13 **Reasons for non-involvement.**

Why do you think you were not involved	**Frequency**	**Cumulative frequency**	**% Frequency**	**Cumulative % frequency**
Maybe not qualified	51	51	36.69	36.69
Instruction from elsewhere	0	51	0	36.69
Input not needed	40	86	28.78	65.47
Urgency of the decisions	3	89	2.16	67.63
Don't know	45	139	32.37	100
Total	139		100	

Table 4.13 shows that when respondents were asked as to why they thought they were not involved in the planning of the project, 36.69% thought that maybe they were not qualified (51), none thought this was prompted by an instruction from elsewhere, 28.78% thought their input was not needed (40), 2.16% thought they were not involved because the project decisions were urgent (3) while 32.37% did not know why they were not involved or were involved and so the question was not applicable in their case(45).

4.2.13 Appreciation of project management knowledge and skills

Table 4.14 **Appreciation of construction skills**

Were your construction skills appreciated.	Frequency	Cumulative frequency	% Frequency	Cumulative % frequency
Not at all	131	131	94.24	94.24
A little bit appreciated	0	131	0	94.24
Don't know	1	132	0.72	94.96
Appreciated	0	132	0	94.96
Highly appreciated	7	139	5.04	100
Total	139		100	

Table 4.14 shows that when members were asked whether their construction skills and knowledge were appreciated in the planning and execution of the project, 94.24% said they were not appreciated or they did not have any NG-CDF project to plan and execute (131), none said their skills were a little bit appreciated or were appreciated, 0.72% did not know whether they were appreciated (1), while 5.04% said their skills were highly appreciated (7).

4.2.14 Satisfaction with the project planning engagements.

Table 4.15 Level of satisfaction with the planning engagements

Were you satisfied with the engagements before project commencement	Frequency	Cumulative frequency	% Frequency	Cumulative % frequency
Not satisfied	63	63	45.32	45.32
A little bit satisfied	11	64	7.91	53.23
Satisfied	16	90	11.51	64.74
Highly satisfied	33	123	23.74	88.48
Don't know	16	139	11.51	100
Totals	139		100	100

Table 4.15 shows that, 45.42% of the respondents (63) were not satisfied while 11.51% of them (16) didn't know whether they were satisfied. It clearly indicates that majority of the

respondents were not satisfied (56.83%) with the planning process. 7.91% were a little bit satisfied and 11.51% said were satisfied with the planning. Only 23.74% said that, they were highly satisfied with how the engagements were done prior project commencement. The product is as good as the process and as indicated the process of planning for NG-CDF projects in the schools did not satisfy majority of the BOMs which casts a doubt on the performance of those projects.

4.3 Data Analysis and Interpretation

This is the art of compiling, sorting and cleaning the facts and statistics to make it easy for the user to interpret the information generated Lamba (2015, September). The process enables the receiver to draw conclusions on a given issue. Data interpretation denotes the know-how of revising data by use of analytical procedures to arrive at reasonable conclusions Lebied, M. (2018). Qualitative and quantitative data analysis and interpretation methods are applied in the analysis and interpretation of data. Qualitative analysis involves nonnumerical variables while quantitative analysis involves numerical variables. This research applied quantitative data analysis in the data analysis and interpretation for the processing of the responses from the respondents.

CHAPTER FIVE

5.0 DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

INTRODUCTION

This chapter presents the findings, discussions, conclusions and recommendations for any further research on some aspects of the study. This is largely guided by the research objectives, interpretations, findings and conclusions drawn from the study or data collected.

5.1 Summary of The Findings

On the construction technical training of the school BOM and NG-CDF Constituency committee members, the findings show that 61.15% of the respondents were not skilled at all in construction management (80), 21.58% were a little skilled (30), 15.83% were skilled (22), 1.44% were highly skilled (2) while there was none who did not know the level of their skill. On education levels, 2.16% were primary school leavers (3), 35.97% were secondary school graduates (50), 28.06% were tertiary college graduates (39), 33.81% were university graduates (47) while none was uneducated. The respondents who did not possess a university degree were majority at 66.19% (92)

The first objective of the study was, to evaluate school BOM members and NG-CDF committee members construction technical training as a NG-CDF projects performance indicator. The study revealed that majority of respondents 61.15% did not have any project management knowledge.

A very big majority at 94.96% of the respondents did not have any training in an engineering construction or related courses. This would hamper any meaningful engagement with the project

implementation teams especially on matters project planning, tendering, project implementation, supervision and monitoring.

The second objective was to determine the level of stakeholder involvement as performance indicator on NG-CDF construction projects. The study findings show that, 59.71% of the respondents were either not involved or did not know whether they were involved in the planning of the project. Noninvolvement of the stakeholders has a negative impact on performance since members satisfaction largely depend on the level of involvement in the project. From the findings 56.83% 0f the respondents were either not satisfied of did not know anything to do with engagement of stakeholders prior project commencement. This is the planning stage of project implementation hence lack of satisfaction is an indicator of project performance.

The third objective is to formulate an implementation framework of NG-CDF projects. The study revealed that there were no clear roles and responsibilities for the project's implementation teams for the projects. On tender documents preparation, a minority 16.55% thought there was a hired team of consultants and sub-county office prepared the documents. A majority 83.45% thought that either the team from the MP's office prepared the tender documents or did not know who prepared them on equal measure. This was either out of ignorance or dominance by the MP and his office. From the findings the most effective project management framework would be one that allows the constituency NG-CDF committee to have 1/5 of the members being building construction specialists. This will ensure consultative involvement and contribution of all members for the success of the construction projects.

5.2 Discussions

From the findings, it is revealed that, the majority members who sit in the boards of secondary schools have little or no construction management knowledge and skill. A very small minority are

trained on building construction or related courses but still having very low qualifications in those courses that they are trained in. Nyaga, (2014) In his study in his study found that project management skills were very necessary and important for the success of any project. Lack of those skills and knowledge leads to poor project performance. Worse still for those who possess some skills and training in building construction, their construction knowledge is hardly appreciated in the whole project implementation cycle.

The findings show a different project implementation structure from what is anticipated in the NG-CDF structure in the 2016 NG-CDF regulations that anticipated full participation or involvement of the project implementation teams which for schools are the BOM members. The level of involvement from the study findings is too low and therefore affects the supervision and monitoring of quality, time and cost of the projects which eventually affects project's performance. This is collaborated by Adan, (2012) where he found that stakeholder involvement in the project has a positive influence of the performance of projects while lack of stakeholder involvement has a negative influence on project performance however varying depending on the stage of the project.

It is clear from the findings that the area MP is still holding a lot of sway in the projects that are implemented and how they are implemented in schools. From how the tendering processes are handled in the projects to the supervision and eventually the quality of delivered projects, there is seen a lack of proper coordination in the whole process between the NG-CDF committee and the schools' boards of management. These factors have affected performance of NG-CDF projects negatively since quality, time and cost of a project can be ensured only if there is proper involvement of PMCs in the implementation, monitoring and evaluation of the project.

5.3 Conclusions

From the findings, it can be concluded that the NG-CDF project management structure adopted in the implementation of NG-CDF projects is affecting the performance of NG-CDF projects. The lack of construction management knowledge and skills on the part of school boards of management has an effect on quality of projects done, cost of the projects and time taken to complete them. The structure allows manipulation, interference and opaqueness in the whole project management and implementation cycle that eventually benefits a few parties and not the intended beneficiaries.

The constituency development fund committee is pivotal in the implementation of the projects but did not involve majority stakeholders in the project's implementation. This hampers the monitoring processes which leaves the costing of projects to a few individuals and to some cases stalled projects. There were cases of water boreholes dug without consultations and geotechnical studies which ended up yielding nothing hence money lost. All these is attributed to lack of proper consultations and involvement of the project implementation team running of the projects.

Stakeholder involvement was not embraced since majority of schools board members claimed non-involvement. This led to very high rate of dissatisfaction with the projects outcomes. There was no openness with the entire project implementation cycle which eroded the confidence of the project implementation teams and therefore giving rise to poor project ratings.

The best project implementation framework that will best serve the communities, schools and the constituency is one which allows full participation of all stakeholders at every stage of the projects. The framework should equally embrace expertise in the membership of the project implementation teams in order to tap into their contributions in ensuring professionalism in the development of school and community infrastructure.

5.4 Recommendations

The research recommends policy formulation where the project implementation teams especially NG-CDF constituency committee and community project implementation teams are allowed to have specific number of slots for building construction specialists who will guide in the process of project planning and implementation in those communities or schools as this will guarantee the achievement of value for money in the projects. A proportion of at least a 5^{th} of the construction experts like, Civil structural engineers, Quantity Surveyors, Architects, Electrical Engineers and Project Managers should be allowed in all school boards in order to entrench construction knowledge and skills in those boards.

The research equally recommends mandatory involvement of all project implementation team members in the process of proposing and prioritization of projects that are important to the community in order to guarantee fairness, openness and transparency in resource management.

5.5 Suggested further study

The researcher suggests that, further study be conducted on the role of secretaries to the boards of schools (School principals) on the performance of the projects in their respective schools. This will show their contributions and influence on the successes or failures of construction projects.

Secondly the researcher suggests a further study to establish whether the school board members understand their role in the management of school resources in accordance with the NG-CDF and Basic Education Act and Regulations. This will help to evaluate the performance of the boards of management on the basis of reality rather than on the basis of assumptions.

The researcher finally suggests that further study be carried out on specific schools and the boards of management with project success variables in order to clearly establish the relationship between their qualifications and the performance of projects.

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APPENDICES

Questionnaire For Collection of Data For A Research Project Titled

ASSESSSMENT OF THE NG-CDF PROJECT MANAGEMENT STRUCTURE ON PERFORMANCE OF NG-CDF PROJECTS IN KENYA; A CASE STUDY OF PUBLIC SECONDARY SCHOOLS IN NORTH MUGIRANGO CONSTITUENCY IN NYAMIRA COUNTY

STUDENT; OISANGA SHADRACK NYAANGA

SUPERVISOR; Dr.-Ing C Mbatha

INSTITUTION; University of Nairobi

Research questions

What is the impact of BOM project management knowledge on performance of NG-CDF construction projects?

What is the impact of NG-CDF constituency committee members' project management knowledge on performance of NG-CDF construction projects?

What is the impact of lack of stakeholder involvement on the performance of NG-CDF construction projects?

Is there implementation framework for NG-CDF Projects?

This is a Structured Questionnaire with multiple choice answers organized in form of a Linkert scale to make it easy for respondents in their responses. These, together with secondary data and field observations, will answer the research questions listed above.

1. Which position do you occupy in the board/committee?

	Chairperson	Secretary	Treasurer	Vice Chairperson	Member
B.O.M/ NG-CDF CC					

2. What is your level of education?

	Primary	Secondary	Tertiary	University	Not educated
BOM/NG-CDF CC					

3. Do you possess construction project skills?

	Not at all	A little skilled	skilled	Highly skilled	Don't know
BOM /NG-CDF CC					

4. Do you possess any training on building construction?

	Not at all	A little bit	Trained	Highly trained	Don't know
BOM/NG-CDF CC					

5. Which area of construction are you trained in?

	Engineering	Architecture	Quantity surveying	Construction management	Building construction	Building economics
BOM /NG-CDF CC						

6. What level of training or qualification do you have?

	Artisan certificate	Certificate	Diploma	Degree	Masters degree	PhD
BOM /NG-CDF CC						

7. What was the level of your involvement in the planning of the project?

	Never involved	Involved a little bit	Involved	Fully involved	Don't know
BOM / NG-CDF CC					

8. Were tender documents prepared for tendering?

	Not prepared	Don't know	Prepared
BOM / NG-CDF CC			

9. Who prepared the tender documents for the project?

	Hired technical team	Team from the sub-county office	Team brought in by mp	Don't know
BOM/NG-CDF CC				

10. Were the tender documents used in the tendering process?

	Not used	used	Don't know
BOM/ NG-CDF CC			

11. Was the tendering process followed in the project?

	Not followed	Followed	Don't know
BOM/ NG-CDF CC			

12. Why do you think you were not involved?

	May not be qualified	Instruction from elsewhere	Input not needed	Urgency of the decision	Don't know
BOM /NG-CDF CC					

13. Were you satisfied with the engagements that were done before the project began?

	Not satisfied	A little bit satisfied	satisfied	Highly satisfied	Don't know
BOM /NG-CDF CC					

14. Were your construction skills and knowledge appreciated in the planning and execution of the projects?

	Not at all	A little bit	Don't know	Appreciated	Highly appreciated
BOM /NG-CDF CC					

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Ref: B53/34243/2019 **Date:** 3rd November, 2021

To Whom It May Concern

Dear Sir/Madam,

RE: RESEARCH LETTER – OISANGA SHADRACK NYAANGA

This is to confirm that the above named is a student in the Department of Real Estate, Construction Management & Quantity Surveying pursuing a course leading to the degree of M.A. Construction Management.

He is carrying out a research *entitled* ***"Assessment of NG-CDF Project Management Structure on Performance of NG-CDF Projects in Kenya (A case study of Public Secondary Schools in North Mugirango constituency in Nyamira County)"*** in partial fulfillment of the requirements for the degree programme.

The purpose of this letter is to request you to allow him access to any kind of material he may require to complete his research. The information will be used for research purposes only.

CHAIRMAN
DEPARTMENT OF CONSTRUCTION
MANAGEMENT & QUANTITY SURVEYING
UNIVERSITY OF NAIROBI

Isabella N. Wachira-Towey, (PhD)
Chair & Senior Lecturer,
Department of Real Estate, Construction Management & Quantity Surveying