

**PROJECT MANAGEMENT PRACTICES AND QUALITY OF HOUSING PROJECTS IN
PARKLANDS, NAIROBI COUNTY, KENYA**

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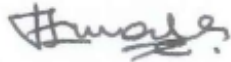
**A Research Project Proposal Submitted In Partial Fulfillment Of The Requirements For
The Award Of The Degree Of Masters Of Arts In Project Planning And Management
Of The University Of Nairobi.**

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DECLARATION

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

Signature



Date: 07/11/2022

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

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DEDICATION

I dedicate my work to my blessed family my wife Pastor. Linet and my four sons Benjamin, David, Simeon and Ariel who had to bear with me when I put many hours away from them. Thank you my Dad Ezekiel and Mum Beatrice and my siblings Emily, Anne, Milka, Lidia, Arthur and Sharon.

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LIST OF ABBREVIATIONS AND ACRONYMS

NACOSTI	National Commission For Science, Technology And Innovation
NCA	National Construction Authority
NCC	Nairobi City County
NEMA	National Environment Management Authority
PMI	Project Management Institute
SPSS	Statistical Package For Statistical Sciences

ABSTRACT

The world over has in the recent past experienced a tremendous change and shift in all aspects be it technology, commerce, economy and even the construction industry. The shift has been more on customer focus and customer satisfaction. Industry player are working round the clock to produce what customers want and to their standard. This simply means quality and value have become the key edge and focus of production. The housing and construction industry has not been left behind and so industry players right from the architects who design the buildings to engineers to the workman on the site are duty bound to question the quality of the work in progress to be competitive. This research set out to better understand how project management techniques affect the quality of structures in Parklands, Nairobi County. At now, there are 68,344 people living in the Parklands subcounty of Nairobi. There are now 23 active home construction projects in the Parklands subcounty, all of which are being handled by various companies. The goals are as follows: (1) establish the impact of resource management on the quality of Parklands housing projects; (2) evaluate the impact of schedule management on the quality of Parklands housing projects; (3) establish the impact of risk management on the quality of Parklands housing projects; and (4) evaluate the impact of stakeholder management on the quality of Parklands housing projects. Both the management theory of Phillip Crosby and the quality improvement cycle theory of Edward Deming will serve as theoretical anchors for this study. The population of this inferentially descriptive study consisted of construction firms currently working on Parklands-related projects. The respondents were drawn from architects, Quantity surveyors, contractors, project managers, new home owners, and project engineers. The Krejcie and Morgan formula for predicting sample sizes provided the basis for determining the appropriate size of the study's sample, which was determined to be 103 respondents. In the course of this research, quantitative information will be gathered via the use of a questionnaire. SPSS Version 20.0 was used for the inferential data analysis, and the central tendency test was performed (mean, frequencies, percentages ad standard deviation). The results revealed that the relationship and strength between the Quality of housing projects in Parklands and Project management practices increased in the following order; risk management ($r=0.574$), stakeholder management ($r=0.624$), resource allocation ($r= 0.66$), and schedule management ($r=0.694$). Conclusion is that good management practices affect positively the Quality of housing projects in Parklands subcounty. Thus practitioners and housing professionals must endeavor to judiciously apply sound management practices. The vast majority of respondents were completely in agreement that the methods of project management had a significant impact on the quality of housing developments in Parklands. Because the p-value for the correlation between quality of housing and project management techniques was less than 0.05, the r-value of 0.667 suggested that there was a positive association between the two; hence, there is a positive relationship between project management and quality. The study recommends adherence to strict management practices by all project professionals and stakeholders. The research also recommends the government to be more stringent in guidelines, compliance and enforcement to ensure good management practices are adhered to. This study recommends similar studies to be

extended to other subcounties in Nairobi especially where houses and buildings have been collapsing like Embakasi, Kasrani and Mathare subcounties.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Quality in housing projects is an integral non bargainable issue at the core of customer satisfaction and paramount to construction companies. The quality of housing projects must be above board considering massive investments of time ,resources, safety of occupants among other reasons compelling all stakeholders to critically demand quality end products. The 21st Century brings in the much-anticipated competitive edge ,with customers being more sensitive to price ,service delivery,scope and quality. According to ISO 9001:2015 quality management systems (QMS) is prerequisite which be must be actualized in any organization to make the entire cycle to meet client needs and consumers loyalty by any establishment of quality assurance activities to achieve and sustain quality products and services. Elbashir (2018) noted that quality is an essential part in construction projects. It gives a competitive advantage and has large impact on the profits and success of an organization. Quality, according to the American Society of Quality (ASQ), is the applying of quality management towards any process in order to achieve highest level of customer satisfaction at the least overall cost to the company and at the same time improving on the process (Rumane, 2018).

It is very necessary to put one's knowledge, abilities, tools, and approaches to use in order to fulfill the needs of the project.Howarth & Greenhord (2018) highlight that quality is specified in building projects and that the project scale, cost, duration and overall quality costs are the total cost spent in construction projects throughout the whole life cycle to avoid owner non-compliance. Quality control checks the quality performance and quality assurance in quality management (Jewel & Flanagan, 2017) According to O. Z .Oni (2019) site supervision by the contractor and client is key to quality projects. All stakeholders in any projects are interested in quality projects. According to Muriithi & Mwenda (2021), the quality of road building projects may be determined by whether or not the road achieves the intended objective or use, as well as the road's endurance. Indeed, quality is defined as the degree to which specified criteria are met.

In Croatia,according to Slawomis, Zanesa & Mladen (2020), Quality plays an important part project success. A projects success is thus defined as delivering a construction project on

customer satisfaction which provides a good return on investment for the company Only 14 percent of initiatives are effective, 67 percent are contested, and 19 percent are unsuccessful, according to the study. The quality of outcomes is seen in managing projects as a comparison of the customer's expectations and needs to what was accomplished.

In Malaysia schedule management is considered very key to delivering quality (Adekele et al., 2019) without neglecting risk management and stakeholders influence on the quality of housing projects. Overall project management practices impacted directly on housing project in Malaysia. China's housing issue has moved enormously from quantity to quality, and this is essential for housing supplies. China is the world's biggest building location for many dwelling units. Total USD 323 trillion in 2008 were committed in housing, a growth of 22.6% over the preceding year.

Research done in China according to Liu, Xin, Xue, Charlie(2016) improving the quality of houses in Shanghai city , mainly relied on the goodwill of professionals in the business to follow the professional ethics in every stage so as to hand over quality housing projects to their customers. Liu,Xin, Xue, Charlie (2016) also noted that the whole life cycle from design to the final products delivery all together affected the quality of the housing projects in Shanghai and Shenzhen. In Brazil, the construction industry has risen significantly since the year 2000. In Brazil's present economic development trend, the construction sector is among the leaders. The Brazilian housing deficit was estimated to be 6,273 million homes in 2010 yet quality still stood as a challenge in the housing industry (Barbosa, and Viltis, 2017).

The Brazilian federal government introduced the Brazilian habitats quality and productivity initiative in order to enhance quality in the industry. The main aim of this was to increase competitiveness though quality check, reduce cost in housing and increase productivity, targeting all segments of the production chain- materials companies, financing agents, professionals and construction man powers and non-governmental organization. Quality measurement is the ignition of quality improvement; things that cannot be measured therefore can be improved. Building sector has an important economic role in South Africa. As a matter of fact it accounts for approximately 80% of total capital asset and 15% of the gross domestic product while offering high employment opportunities (Tsiga, 2016) yet unfortunately despite the significant contribution to the South African economy quality performance remains low

(Bendale & Behangale, 2018) Cost overruns and delay were the main variables influencing construction quality.

The construction sector contributes 15% to Egypt's GDP (gross domestic product), and the country's total investment in the sector has reached a high of USD 21 billion. According to AlJanab, Abdel, and Eidash (2020), despite the significance of this business in Egypt and the fact that it is actively expanding, the industry is nonetheless hampered by a significant number of dangers that are collectively referred to as "rework." The non-conformity elements are brought back to an acceptable condition via a process called rework. The primary cause for lesser profitability and the owner's displeasure is the need for rework (Eze & Idiake, 2018). A prominent issue that contributes to the overall poor quality of building projects is rework. Stakeholder management according to Bosirat (2016) was very critical to the remedy of incessant collapse of buildings in Lagos State, Nigeria. This was found as an important factor in mitigating future risks and involving the community which otherwise would bear the brunt of collapsed buildings which are of poor quality.

Kigali, Rwanda's housing market is suffering from a serious drop in quality due to lax quality control over building materials and sloppy building codes (Benon, Mbazize& Shukla, 2016). According to Fashina, Sheikh, Fakunle, & Opiti (2020) the poor and the marginalized bear the brunt of disasters occasioned by poor quality building codes. These instances are disturbing, and they represent a pitiful cry to enhance enforcement of building codes, regulations and legislation on scholars, professionals and artisans Muhwezi, Twiramatsiko, & Acai (2020) noted that poor project management practices as the major reason why the quality of buildings was poor in Bushenyi District Uganda leading to some collapsing. Costover runs, schedule management as well as risk management contributed to this. There is thus a critical need for project managers to diligently be involved so as to achieve quality housing projects

Quality of housing projects in Nairobi depended majorly on Project Management Practices that is resources (cost) schedule (time) and risk management. (Obillo Sebby O,2020).He defined a project as the coordinated effort of several departments inside a company to create something new.Proper resource management and strict timelines observance had a direct effect on housing projects in Westlands.(Oyaya,Walter O,2017). According to The United Nation Center for Regional Development (UNCRD, 2000).That entity of complex activities where resources are

used is supposed to give back returns (profit). One of the six wards that make up the Westlands Sub County of Nairobi County is called Parklands ward. Parklands, just like in any other part of the county and country has seen the housing market evolve considerably in the last couple of years (Gurhan & Nyangau, 2020). Demand for housing has radically surpassed supply thereby putting pressure on private developers to rush their projects at hand which could compromise on quality.

1.2 Statement of the problem

Acceptable degree of building quality has been a problem for many years (Oyebisi et al, 2019). According to Neyestani, (2016) Quality has a positive and negative impact on time and costs in projects whereas the smallest impact on scope was seen. Stawomir & Zanesa (2020) noted that 40% of poorly managed project revenues are spent on poor quality. They have also highlighted that excellent management techniques have a beneficial influence on building quality. Thote, & Kanase (2017). The resource allocation was determined in a research of key success elements in building projects, schedule management, risk management and stakeholder management had a final direct effect on the quality of a project. According to (Mohammed & Abdullah 2017), project is deemed to have achieved its purpose and assigned objectives if it meets the acceptable building standards and all stake holders are in agreement. Romane (2018) said the building company must show its capacity to continuously deliver goods that meet or meet consumer expectation and reinvent the quality of its products. ISO 9001 continues to be a process-based systems that focuses on conformance (Mohammed & Abdullah, 2017).

The National Construction Authority (NCA) Strategic Plan 2015-2020 outlined lengthy duration, conflict of law, access to resource and low completion rates of housing, as major reasons hindering the quality of housing projects. Quality issues remain a thorn in the flesh in Parklands area, according to NCA (2020) report by the Executive Director. Two buildings worthy multimillions continued to be built in total disregard to the site having been suspended. If this is the extent of the rot then many more buildings could be faulty, with lack of accredited skilled workers, site supervisors and registered contractors on site. According to NCA(2020) report the Executive Director of (NCA) noted unprocedural constructions have been on the rise. This makes compliance and hence quality of the buildings greatly compromised. Further to that in the

NCA (2021) yearly report a building collapsed while undergoing construction. This emphasizes the fact that out of the 48 buildings which were ongoing 10 were not approved by NCA.

According to a study by Muigai Daniel (2019) Impact of management techniques on construction project performance, the study placed more emphasis on effective management skills and relegated quality as a by factor affecting projects performance, thus the study was too holistic. Another study by Njue(2016). An instance illustrates the Tharaka Nithi county government's reluctance to emphasize the impact of management practices on the quality of construction projects, and its emphasis on inspection as a crucial part of achieving quality in building construction. Another research by Oyaya,Walter (2017) on how leadership style affects housing projects in Westlands,Nairobi County in, Kenya, highlighted that buildings are carried out in compliance with specified criteria so that the quality of housing is assured. But this study ignored the issue of stakeholder's involvement as impeding the quality completion of projects because of time and cost overruns, interruptions midway the project cycle. Despite research having been done on performance of building projects a gap exists on research on the quality of housing projects. This research intends to bridge that gap.

1.3 Purpose of the study.

The purpose of this research was to assess how project management techniques affect the high quality of building projects in Parklands, Nairobi, Kenya;

1.4 Objectives of the study.

This research targeted four objectives, namely:

- i. To investigate the extent to which resource management procedures affect the quality of housing developments in Parklands, which is located inside Nairobi County.
- ii. To determine the extent to which time management procedures have an impact on the quality of residential construction projects in Parklands, which is located within Nairobi County.
- iii. To investigate the extent to which risk management procedures have an impact on the quality of housing developments in Parklands, which is located inside Nairobi County.

- iv. To determine the extent to which techniques of stakeholder management have an impact on the quality of housing developments in Parklands, Nairobi County.

1.5 Research Questions

The objectives of the research addressed four questions:

- i. How do the various approaches of resource management affect the quality of the housing developments that are being developed in Parklands, Nairobi?
- ii. What effect do methods of schedule management have on the quality of housing developments in the Parklands area of Nairobi?
- iii. What effect do risk management procedures have on the standard of Parklands, Nairobi's home construction projects?
- iv. What effect do methods of stakeholder management have on the quality of housing developments in Parklands, Nairobi?

1.6 Significance of the study

The findings of this research will be beneficial to decision-makers at both the national and the local levels. The provision of housing is now one of the top four priorities of the Government of Kenya (2013). The recommendations of this study will contribute to the success and efficient management of housing projects using sound project management practices. This will help in the quality and completion rate. Housing projects started will be completed on schedule and handed over as per the specification (quality work). A paper will be placed in our libraries, with online content to give knowledge on The Influence of Project Management Practices on the quality of housing projects, for the benefit of Civil Engineers, Architects, Structural Engineers, Quantity Surveyors; Public and Private Investors.

1.7 Delimitation of the study

The research focused on Parklands area which according to N.C.A strategic plan 2015-2020 had the highest housing index, overall in Nairobi County. Parklands is located in Westlands Subcounty in Nairobi county. This area has seen an influx of both commercial and residential projects attracting the highest returns on investments due to its proximity to the CBD and

multicultural population. To minimize the issue of collecting data from respondents that did not understand well the questionnaire items will be simplified to ensure all respondents comprehend and give the relevant information. The target population for this study was consultants, home owners, quantity surveyors, contractors and engineers.

1.8 Limitations of the study

The researcher experienced late response from respondents due to their busy, strict and tight schedule. Other sources of getting information will be considered like county government archives, internet and NCA library. The people who were asked for information seemed hesitant and frigid because they were afraid the research would adversely expose them. The researcher established a friendly relationship with the participants and worked to dispel any misconceptions they may have had. The information that is provided is not intended to be used in any way that might victimize somebody. It may also prove difficult for some respondents to fully understand the questionnaire hence give irrelevant information that does not enable the study meet its set objectives. The researcher debriefed the research assistants and respondents prior to overcome this.

1.9 Assumption of the study

Assumptions used for this study include that all questionnaire answers from the sampled participants will be honest and free of error. The researcher also hoped the data would be collected on time. The researcher assumed the respondents were aware of building projects and all implications therein. It was also claimed that the sample would be typical of the population, and that respondents would react in an objective way to the questions that were included in the research proposal. The research was conducted to evaluate and contrast the impact of different management methods on the standard of living provided by different types of residences.

1.10 Definition of significant terms used in the study

Project – A project is a planned series of steps taken to bring about a specified outcome with the help of various inputs including time, effort, money, and other resources.

Project management techniques-include making use of management theories and concepts in an efficient manner so as to complete project tasks.

Quality- Quality is about customer satisfaction. Degree to which project fits the desired standards. When the client sees the final products, the client is able to appreciate their desires have been captured in totality.

Housing Project-Residential houses for occupation by people

Resource Management- This concerns mainly the amount of resource required for planned tasks. It involves estimating schedule activity costs.

Schedule Management- It involves putting up measures to complete project in stipulated time. A start and end time for the project is required. In between the various stages, each stage must adhere to a planned schedule including the waiting time for a particular schedule to roll over to the next.

Risk Management- Risk management in a project is the process of preparing for the possibility that an unfavorable or favorable outcome may occur in relation to one or more of the project's objectives.

Stakeholder Management- A project's stakeholders are any interested parties who stand to gain or lose from the project's completion. It involves a systematic and organized way of identifying stakeholders and managing their expectations and perceptions.

1.11 Organization of the study

The study was divided into five parts, the first of which contained a survey context, the study's aim and objective, the study's research issue, its importance, limits, assumptions, and a description of key components. The literary evaluation and the theoretical framework were the primary focuses of the second chapter. The methodology of research, which may be broken down into the following categories, was discussed in Chapter 3. The preamble, the techniques of the study, the demographic goals, the sampling, the research equipment employed and the data collection, and the methods of data analysis. Chapter four discussed research methodology in more depth. The fourth chapter offered a panorama, presentation and analysis of the results. In Chapter 5, the observations, results and recommendations in the preceding chapters were summarized.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

It is the purpose of this chapter to examine the literary works of different academicians in order to determine what they have contributed to the understanding of how project management techniques affect the quality of housing projects. It will be driven primarily by the study's goals, with resource management, schedule management, risk management, and stakeholder management serving as the core domains of inquiry.

2.2 Quality of Housing Projects

The veto on quality of housing is such an invaluable aspect of home owners besides factoring safety and satisfaction. In understanding the dynamics, Ingason et al (2019) opened up the issue of balancing and setting up proper models of project management including yet not limited to scope, cost, duration and prudent timelines. Juran (1999) defined quality as delivering a service or product according to customer's specification and standards without defects. Crosby (1991), a respected American quality guru defined quality as Conformity with customer service and product specifications, quality assessment is the expense of non-compliance, negligible defective ought to be the benchmark quality and performance protection is the quality system (Romane, 2018). The importance of establishing quality in the minds of the public has made quality a top focus in many companies. Yet quality is a core concern in many changing business conditions which include competition, customer expectation and performance improvement. According to Stawomir et al (2020) better performance of construction projects require creative and adaptive project management practices that consider use of verified very high quality materials. Materials used in construction play a role in attaining quality, poor quality supplies will definitely compromise project quality, and so it is prudent to have a supplier quality management system to ensure quality supplies are sourced and finally reach the site and are used in the site appropriately without diversion or compromise quality (Picciotto 2020)

According to Abor & Otinga (2020) hiring the right personnel with necessary expertise like the right engineers, quantity surveyors, architects, foremen, supervisors, both skilled and non-skilled is key in delivering quality projects. Even with the right quality supplies but poor skills, quality

cannot be guaranteed and vice versa. Quality supervision which can be achieved by forming a team and assigning them responsibilities to monitor quality progress at every project stage and have control mechanisms such that if quality is not achieved necessary correction should promptly be initiated (Mashwama & Twala 2017). Quality control, quality inspection, quality assurance, quality engineering and quality management are very key steps of ensuring quality building projects (Howard & Greenword, 2018). To execute a quality project the contractor has to have the capacity to deliver at the appointed time, cost and customer craving according to OZ Oni et al 2019. In Egypt, the quality of building projects was strongly affected by cost overruns and delays in schedule according to a study by Al-Janabi (2020). Yet, current market situation in Brazil (Barbosa & Vilntis 2017) construction firms have begun to implement new management models that prioritize quality from a strategic standpoint. In another study by Mwenda (2018) factors like feasibility study, legal and environment factors had an impact on building quality. Quality, as defined by the researcher, is based on how well certain criteria are satisfied, such as whether or not a structure can withstand its intended usage for an extended period of time.

The project team's project management action has also proven to be the strongest predictor of customer satisfactions with quality (PMI, 2017) that limited resources may be used effectively. According to Howarth (2017), the difficulties posed by competitive building markets and highly dynamic, highly complex projects need the development and implementation of quality management methods. For quality achievement in construction projects (Thote, 2017) both measurement of performance and taking actions must be considered strongly since quality is not an abstract but real tangible aspect in projects. Furthermore construction companies can seek quality assurance certification and implement a robust working quality assurance system. Bergmann(2019) conceptualized that to achieve quality projects, then quality planning that is defining and designing a process that achieves set goals, quality control involving operating and changing the process to achieve optimal effectiveness and quality improvement which essentially entails improving performance to superior levels is very critical in achieving quality.

2.3 Resource Management and Quality of Housing

Defining cost estimates for conceptual alternatives by the owner is very key in determining the construction capital costs so that the owner of the project may provide the necessary funds (Othman et al 2017). According to Gupta & Belinda (2018) the project owner should approve

maximum finance budget and formulate throughout on project financing right from the onset. Construction resource allocation is important in planning and allocating resource required like products and materials, construction tools and equipment, human resources, space, subcontractors and finances to meet project objectives of quality and on time completion of projects. (PMI 2021) In order to deliver high-quality projects, project managers must resolve resource conflicts, optimize time, effort, and cost management, secure the appropriate workforce skillset, recognize constraints like poor weather and limited access to the site, and monitor resource utilization to prevent either over- or under-allocation. According to Rumane (2018) problems with projects can occur where there is poor resources allocation, and the opposite is positive because construction has grown more technological, the variety of goods and materials has expanded, standards and rules have been stricter and many specialized creators are present, particularly in the early phases of design processes.

The formation and implementation of a competent resource management team helps in managing housing projects. According to Kusimo (2018) proper resource management and allocation by the resource management team helps keep projects on schedule at the same time ensuring the need for project activities is fulfilled and maximized. (Desalegn & Jayeskumar, 2018) Goods and materials, building tools and facilities, people resources, areas and facilities, subcontractors and funding need project goals and quality integration. The resource allocation team and plan should be able to establish properly defined goals and objectives which are specific, measurable, agreed upon, realistic and timely (Gupta & Belinda 2018)

Planning according to Rumane (2018) and management of resources has a good or negative impact on the ultimate building quality. When resource allocation is done prudently quality is ensured and vice versa. Results from a research done in Kenya by Pamela Wanja (2017) found that the effectiveness of WFP-funded NGOs' programs was dependent on the efficient distribution and administration of the monies given by the WFP. However, this study did not highlight on the quality that is customer satisfaction. Another study by Jeremiah Nairouwa (2018) on factors influencing competitor of building projects in Kajiado highlighted that capital resource, human resource and stakeholder involvement ensure the smooth running of a project. However this study relegated to the back customer satisfaction, which is the key in any project completion. Research by Vivi Mary Elizabeth (2020) on the impact of monitoring and evaluation on the success of housing projects in Nairobi County indicated that adequate resource allocation

was crucial to the projects' ability to be completed on time. This research stressed on human resource as a key element among capital, and resource plan as critical factors. This study, however, was unable to demonstrate a correlation between project quality and resource allocation.

2.4 Schedule Management and Quality of Housing

A project has a limited lifetime and a clear starting and end timetable is drawn up. The anticipated timetable is extremely essential both from the financial perspective and the acquisition by the user or owner (Wawak & Mladen, 2020). According to (PMI 2017), in order to plan construction activities within the time-frame of chronological distribution of tasks, the resources, length and processes required to guarantee optimum costs and timeframes are accomplished, but above all quality is achieved. A thorough study of design and the location where construction work is carried out before planning is carried out, breakdown of operations into activities, analysis of any relationship between different activities, setting the procedures and methodology and assigning equipment is very important because time is the most basic variable in schedule management to achieve quality (Majeed, 2019). According to Nelson (2017) project managers need programs which describe the sequence in which tasks must be carried out to achieve quality. The programs must have dates and durations allocated to tasks, critical path and float.

Whereas according to Kerzner (2017) schedule management is the most next important activity after the project program has been approved, proper strategy to set up the activities need to be drawn. The schedule of activities, start to end time must consider the best time to start with the least cost and least risk. One of the intended management components of the performance of construction projects in the Gaza Strip was cited by Enschassi (2017) as the second most important factor in Gaza's success. A further Mahamid (2016) research on variables leading to poor performances in Saudi Arabia's construction projects found inadequate scheduling and inadequate contractor experience as factors influencing the performance of projects. This study however did not focus on quality of the projects.

Another research by YaserGamil (2018) assessing critical factors for building failures in Yemen highlighted poor project management, frequent design changes, cash flow, employer and non-educated contractor work, shortages of raw materials and a low salaries for engineers and

building workers, all of which contribute to building failure. This study did not focus on time schedule management as factor. The study by Suresh & Sivakumar (2019) noted that sequencing of project activities is the key to timely completion of projects. This study noted that delays came because of poor time management and failure to do thorough monitoring and evaluation hindered on schedule completion of projects. It however did not deal with the overall satisfaction of the customer; hence this research hopes to bridge that gap.

2.5 Risk Management and Quality of Housing Projects

A silent but known fact of all housing projects is: All housing projects face risks! According to Abazid & Harb (2018) there is never a time any building project or company is not going to face or take at least a little risk with projects which may include litigation and disputes, safety issues, financial risks, environmental risks, expectation to produce high return on invested funds and low margins and profits. Risks are part of projects (Mhetrek & Landage 2016). It is essential that the project managers have a danger management strategy in place to govern the level of risk involved in the project. Among the issues to guide may include, identification of the problems, identify who may be harmed and impact, determine how many risks may arise, decide on control measures, have contingency plans and review and revise all risks assessment throughout the entire project. Risks that might negatively impact the project's quality can be avoided, mitigated, transferred, or accepted by project managers, as stated by Ljveco (2017). (Al-Ajmi & Makinda, 2018) when risk management is done correctly and sincerely the construction risk management reduces likelihood of an event occurring and impact that is to say preemptive actions minimize its magnitude and thus completion is assured.

Risk management is an extensive and methodical manner in which the project goals are identified, analyzed and responded to perceived and unexpected risks (Howard & Greenwood 2018). Since construction projects are notoriously difficult to anticipate, Aarthipriya & Poomozhi(2020) argue that construction management must prioritize risk planning, identification methods, qualitative & quantitative risk analysis, risk response, and monitoring.

A research by RA Bahamid (2017) on risk management processes in building development country projects defined risk as known, or unknown, exposure to losses and gains, or probability of loss or gain multiplied by proportionate magnitude. The research dwelt more on risk identification and mitigation but did not address the influence on quality. This research hopes

to address this gap. Rostami (2017) in a trial risk identification tools and techniques: research in small businesses has observed that the construction sector has a very low reputation for dealing with risks since most projects fail to meet timeframe and cost budgets, making the sector very at risk yet efficient risk assessment and risk management is a major challenge. This research did not discuss the final product or quality of the project. Another study of risk management in construction in Sweden by Daria Petriovic (2017) identified risk identification as key component among the risk management processes. The result of this study did not address the effect of risk managing on building quality projects. A study by Lim (2018) on risk management in the Kenyan construction sector, the researcher noted that poor quality workmanship, cost and time overruns were important aspects for projects Managers to assess in risk identification and mitigation.

2.6 Stakeholder Management and Quality of Housing Projects

Stakeholder mapping and group sessions are startup points in stakeholder management. According to Matu et al (2020) each construction project manager needs to understand who the stakeholders are through stakeholders mapping and what is required by each of them. It is imperative also to do self-assessment to enable the projects team determine if in fact are meeting the requirement of the stakeholders. (Mandala E 2018) provided a critical and very evaluative methodology approach. Both Primary and secondary stakeholders must be given consideration. Opinions and influence of the stakeholders help shape a project and make it better positioned for success. (Nangoli, 2016). According to Freeman(2018) a bilateral type of relationship where stakeholders' opinion on how a project is accountable to itself first and also how an organization behaves when dealing with its stakeholders informed how decision making and outcome of the final project. Stakeholders in a process are persons or organizations with vested interest in any projects being promoted. The interested parties can be grouped as international/donors, political, public, security, labour unions, nonprofit organizations, civil society and users (PMI, 2017)

It is perilous to ignore any stakeholder, especially key influencers, since, as stated by Khan and Cable (2018), stakeholders have a significant effect on the quality of building projects. Freeman (2018) noted that stakeholder's analysis as key to identifying key influences and stakeholder related issues very relevant for managerial attention. Maina (2016) conducted study emphasizing the role stakeholders play in a project's success; however, the data were not presented in an easily digestible format. Good plans are good on paper but outcomes are critical for project managers.

This research hopes to bridge that gap. Another study by Njoka (2020) The impact of stakeholder participation in public projects was influenced by majorities on the identification, planning, execution, surveillance and assessment of projects. The research findings did not say much on the effect of quality of the projects by stakeholders. It gravitated more around the process.

2.7 Theoretical Framework

The following two theories guided this study: The Phillip Crosby Management Theory and The Deming Cycle Theory.

2.7.1 Phillip Crosby Management Theory

The renowned quality specialist Crosby (1994) has developed the Quality Principle based on the four principles of quality for the first time: Product conformity, customer satisfaction, quality prevention, zero defect performance and non-compliance quality pricing for the first time. PMI(2017), Crosby stated that establishing the right principles in a business saves more on returns than the cost of quality paid by the organization. He disputed the assumption that zero faults were not an assembly line phenomena but rather that quality was defined as a conformance to a set of management established and quantifiable requirements and not a hazy concept of goodness. These requirements are based on the customer's needs and desires and are not randomly defined.

An organization must strive for perfection at every level of the production chain. Each individual from high level management to line workers should be involved in ensuring the output is as close to the customers target specifications as possible. Overall, according to Ruman (2018), Crosby postulated the fourteen step quality management principle with emphasis on quantitative performance; create commitment to management, build quality enhancement teams, establish quality measures, Evaluating quality costs, raising awareness of quality, Take steps to fix issues, aim for zero faults, Train and management supervisors, Hold zero faults to determine your attitude. Promote targets for development, report on obstacles, recognize contributions, create quality boards and repeat everything.

According to Neyestani (2017) Crosby's Principle based on efficient quality management where there are zero defects. He also stated that Crosby recognized that the first time the cost of doing this could be calculated. Othman et al. (2017) noted that quality is not intangible or

immeasurable, no, it can be quantified and the opposite poor quality has to do with management. He noted that indeed as Crosby had conceptualized, quality as a measure of goodness of a product and that getting it right first time is key to quality products. To achieve quality employees you have to know that quality improvement is continuous, they must report any existing problems and possible solutions and they must also work as a team (Ljevo, 2017).

Quality of housing projects depend on how prudent project management practices are incorporated in housing projects. The early actions that are carried out by the project team are very vital for there to be a successful outcome to the planning of the project. The total dedication to quality must be communicated by the project management team to everyone who will be engaged in the project, including the various suppliers. This must be done in a very clear and concise manner. This means for the housing project to conform then the whole team must do it right. The project team leaders have a duty to mobilize all the different departments to reduce and if possible eliminate wastages-that is employees must be prudent in time keeping and the various tools and materials on the site so that the budget estimates are met. Moreover, the project team should establish training needs and encourage all the members involved to have personal improvement goals. Those who excel should be recognized openly. Doing it right the first time in making sure the various components of management are planned first time. Resources, investigating risk, planning the different tasks on time and the input of various stakeholders must carefully be done before start of the project to minimize hiccups and wastages. Overall an important aspect of the theory the researcher hopes to use is that quality is tangible and measurable. Quality must be seen and accepted.

2.7.2 The Deming Cycle Theory

The Deming cycle was established in the 1950's and has a chronological order of four essential phases: plan, do, analyze and act. According to this idea, a method for improving the quality, decreasing faults via better quality consistency and knowledge of quality were key topics. In this theory under planning, the aim is to prepare ahead of time so that you can comprehend what you'll be archiving. This is both theoretical and practical. In planning you attempt to improve outcomes, test and analyze processes. At the `Do` stage, the plan is executed bit by bit while documenting every step. While at the `study` stage questions like did the outcome meet your predictions? In what respects was the result different and why? And how can these factors be

tested? They're asked. The study stage for Deming helps us to make scientific findings. The act phase is the last step of our procedure and the first phase of our following cycle. This stage is both the implementation of new theory. The researcher used this theory in the study in that the project team should be able to plan, do, study and finally act or implement the various aspects of the variables under study. Thorough insight on resource, risk, schedule and stakeholder involvement is critical for the researcher.

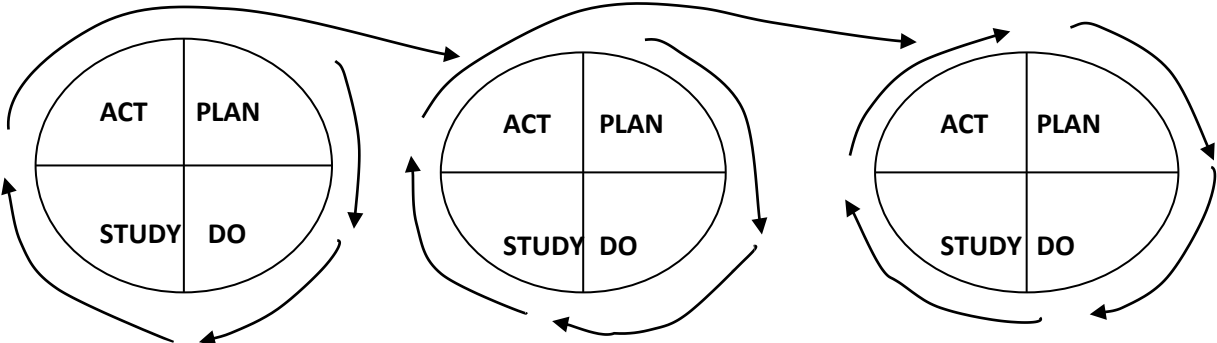


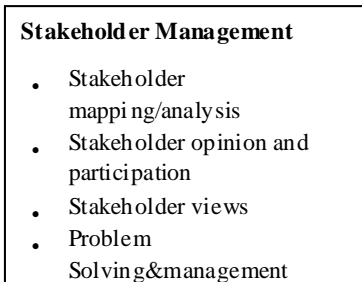
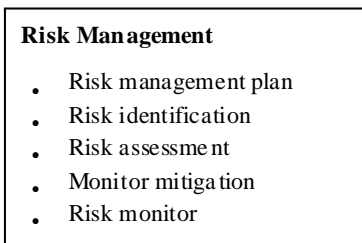
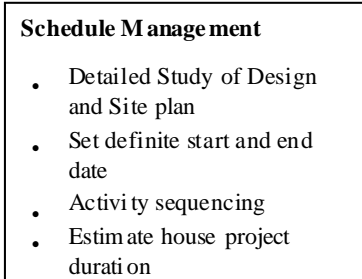
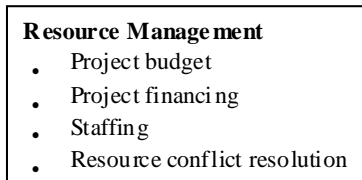
Figure 1 The Deming Cycle

2.8 Conceptual Framework

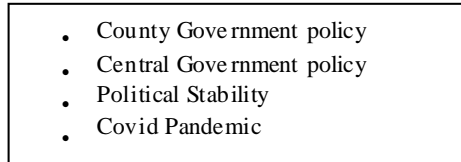
Diagrammatic representations of the research variables and their connections are provided below. One variable's action is determined by a third, the independent variable. The response variable is a time series of observations or quantitative measurements that are used to interpret the independent variable's behavior.

CONCEPTUAL FRAMEWORK

INDEPENDENT VARIABLES



MODERATING VARIABLES



Quality of Housing Projects

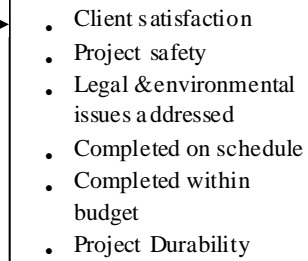


Figure 2 Conceptual Framework of the Study

The independent variables of the research include allocation of resources, schedule management, risk management and stakeholder management. The moderating factors of the research include government policy and local authorities. It explores the hypothesis that several factors, including resource allocation, schedule management, risk mitigation, and stakeholder engagement, all have an impact on the final product quality of residential construction projects.

2.9 Summary of Literature Review

The impact of construction quality on project management approaches was the subject of an extensive literature review, which included both theoretical and empirical studies from researchers all over the world. Studies and theories indicated that yes indeed resource allocation, schedule management, risk management and stakeholder management affects the quality of building. It also looks at the two theories of quality management by Phillip Crosby and Deming.

The papers examined indicate a connection between quality and project management. The chapter also looks at theoretical framework where two theories that highlight current research have been discussed. The Crosby theory of management explores how to achieve quality. Quality must conform to customers' requirement while maximizing zero defects. Quality is also measurable and tangible; it is practically seen and felt. In the current study the researcher holds that resources allocation, Schedule management, risk management and stakeholder management are crucial to project quality. Yet the Deming Theory Cycle developed by Francis Deming (1950) based on improvement of quality as a process helps the researcher to help managers of projects plan activities, do the activities that is implement, study any outcomes for risk management and act promptly.

2.10 Knowledge Gaps

Table 2.1 Knowledge Gap Mtrix

Variable	Author & Year	Focus of Study	Findings	Knowledge Gaps
Quality Of Building Projects	AL Janabi 2020	Project performance and how is impacted by factors related to reworking in Egypt	Poor project management practice affect project performance in Egypt.	The study attained common factors (completion cost, schedule,)but did not set to investigate effect on quality.
Quality of Building Projects	Mwenda (2018)	Construction project stages, legal issues, the environmental, and the quality of housing development project in Nairobi County, Kenya	Feasibility assessment is a key variable of project quality.	Overall project management practices and resultant effects and influence on quality lacking.
Resource allocation	Wanja (2017)	A look at the factors that affect the performance of programs in NGOs that are supported by the WFP	The study found that good resources allocation influences positively performance of projects.	The effect of resource distribution on the overall quality of projects was not the primary focus of this research.
Resource allocation	Nairowua (2018)	Factors influencing completion of Building projects in Kajiado.	The study found that resource allocation had an influence on the completion of building in Kajiado.	The study did not bring out quality being affected by resource allocation. It source the process rather than customer satisfaction.
Schedule management	Adan (2017)	Factors affecting performance of construction projects in Gaza Strip.	The study found out that proper schedule management positively affected performance and completion of projects.	The study did not highlight schedule management as an effect/ influencer of quality.

Schedule Management	Ibrahim (2016)	Factors contributing to poor performance in Saudi Arabia	Poor site management and schedule affect performance of construction.	The study did not evaluate the effect on quality.
Risk management	Bahamid (2017)	Risk management in construction projects in Developing countries	The study focused on risk identification and mapping.	The study never correlated the effects and influence of risk on quality
Risk management	Dario (2017)	Risk management in construction in Sweden	Risk identification is key in risk management.	Omitted the impact of risk on quality of building(construction site)
Stake holders management	Maina (2016)	The impact that the engagement of stakeholders has on the performance of the project.	Good stakeholders involvement keeps the project complete without interruptions and without overruns.	The research was unable to establish a correlation between the engagement of stakeholders and the quality of initiatives.
Stakeholder management	Njoka (2020)	The impact that the engagement of stakeholders has on public projects.	The selection of projects, their planning and execution, as well as their monitoring and assessment, are essential for project performance.	The research was skewed to the process. It never sought to focus of the end produce and customer satisfaction that is quality.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This part offered an insight into the conduct of the study. This chapter dealt with the design of the research, the target audience, the sample and sampling procedures, research equipment includes devices for pilot instruments, data collecting techniques, data analysis methodology, ethics and variable operation.

3.2 Research Design

Research design is a plan that most likely assists the researcher in the preparation and execution of the study in order to accomplish the targeted aims (Orodho, 2015). This investigation is carried out in a descriptive design. The method aims to explain the components of the research participants and the variables under study (Kombo and Tromp 2016). Because it tries to aid researchers in gathering data on a wide variety of qualities that are easily observable in society, this methodology is the most appropriate choice for this study. Another feature that guided adoption of this design is its ability to help achieve direct source of all attributes required. Descriptive research design creates a good environment of interaction for thorough responses and sharing past experiences, ongoing and future happening in the housing industry, thus very key in elaborating the variables under study. The study's methodology, which included dependable descriptive analysis of demographic variables, was a good fit for investigating how management approaches affect the quality of housing developments.

3.3 Target Population

The study focused on building inspectors, project engineers, contractors, project managers, currently having ongoing projects in Parklands and new home owners of Ameresa apartment-a three bedroom apartment making a total of 140 respondents. According to National Construction Authority 2021 report we have twenty three ongoing housing projects in Parklands. According to Kothari (2012) the target population comprised all participants in the study, who poses similar set of traits with respect to investigation at land. According to Orodho (2015), the term "target population" may refer to a variety of different groups that need to be kept an eye on. For this study the researcher included building inspectors, project engineers, contractors, project managers, new home owners .This population is directly involved in housing projects and

therefore deemed sufficient to provide the much needed information to make proper inferences in this research.

Table 3.1 Target Population

Cluster	Target Population	Percentage Target %
Architects	13	9.3
Quantity Surveyors	20	14.3
Contractors	15	10.7
Project Managers	22	15.7
New Home Owners	27	19.3
Building Inspectors	10	7.1
Project Engineers	33	23.0
Total	140	100

Source: NCA2021 website report

3.4 Sample Size and Sampling Procedure

This section will examine sampling and sampling mechanisms.

3.4.1 Sample Size

The sample of 103 participants selected utilizing the Krejcie & Morgan Distribution Table for this study will be. Individual sample for respondents interviewed in this study will be determined by proportionate sampling followed by simple random sampling. The sampling unit for the study was individual cluster of professionals.

Table 3.2 Sample Size

Cluster	Sample size	Percentage Sample Size%
Architects	9	8.7
Quantity Surveyors	15	14.6
Contractors	12	11.7
Project Managers	17	16.5
New Home Owners	19	18.4
Building Inspectors	7	6.8
Project Engineers	24	23.3
Total	103	100

3.4.2 Sampling Procedures

The sampling method was to pick a few instances from a large population to investigate and to generalize the large population.

In order to determine how respondents were involved in the study process, the researcher first used the idea of stratified sampling and then moved on to using random sampling alone. According to Kothari. C (2016), the sampling technique to be used will be searching specific number of people from the target population.

3.5 Research Instruments

For the purposes of this investigation, the questionnaire functioned as the data collection tool.

3.5.1 Piloting of Instruments

To evaluate the level of dependability, the questionnaire was tested experimentally before the real data collecting procedure. This will be done in Westlands where questionnaires will be issued to 10 selected respondents in the construction industry with ongoing projects. This figure is approximately 10% of the sample. The Westlands area will be used in piloting which is exempt from the actual study. This process will enable the researcher assess the clarity of the questions asked and in case of typing errors and ambiguities they will be addressed and corrected. The researcher may get more acquainted with the method of data gathering with the help of the pilot-testing procedure, which is another reason why this approach is important.

3.5.2 Validity of the instruments

Creswell, J(2015) noted that the level to which a construct provides the measures of what is being investigated is termed as validity. The research made use of content validity since it gives the measure of the level to which a sampled item represents the contents of what was designed to measure. The study's goals will be used to inform the development of the questionnaire. The researcher will consult with their supervisor and several industry experts to evaluate the questionnaire and establish the instrument's validity. The findings of the discussion will help the researcher identify ambiguous questions, and correction done. The researcher will use suggestions from the supervisor to improve the instrument and experts.

3.5.3 Reliability of Instruments

As per Konthari (2016), the dependability of the devices is defined as providing coherent results on repeated testing. Blumberg, Cooper & Schindler (2014) noted that the reliability of the data utilized depended majorly on the questionnaire. This will be achieved by pre-testing the questionnaire and addressing shortcomings during pilot testing. In this study the instruments reliability will be tested using Cronbachs Alpha (Cronbach, 1951). If an item's alpha coefficient is less than 0.7, it will be considered unreliable for the purposes of this study and will be excluded from consideration.

3.6 Data Collection Procedures

The researcher got a University of Nairobi introductory letter and a NACOSTI research license will be requested for. Research assistants will do data collection. Drop and choose later methods are used during data gathering. It is recommended of the responders that they finish filling out the questionnaire within the next five days so that there is sufficient time to react. To ensure issued questionnaires are returned the researcher maintained a register to monitor issued and returned questionnaires.

3.7 Data Analysis Technique

This comprises the methods that are used to evaluate the data that was obtained from the field so that conclusions may be drawn from the data. Initially, SPSS will be used in order to code the surveys. The descriptive statistics such as mean, standard deviation, frequency, and percentages will serve as the foundation for the quantitative analysis that will follow. The data was organized into frequency tables for easy viewing. Correlation analysis will be used to determine if two variables are interrelated. If the correlation coefficient found is 0, the two variables are unrelated and if the value is 1, they are perfectly related. The relationship can be positive or negative.

3.8 Ethical Consideration

During the administration of questionnaires, ethical criteria were carefully respected in order to foster collaboration, responsibility, trust, equity, and mutual understanding between researchers and respondents. Confidentiality of the respondents was highly regarded so that there was no fear of victimization. This was also important among similar target groups so that they would not discuss the questionnaire together and thus give biased opinion. The questionnaire included a cover letter requesting anonymity from the participants. The information provided was used for no other reason than for this study.

3.9 Operationalization of Variables

Table 3.3 Operationalization Variables

Objective of The Study	Type of Variables	Indicators	Measurement Scale	Method Of Data Collection	Type of Data Analysis	Tools of Data Analysis
The goal of this study is to ascertain the effect of standard project management procedures on the final product quality of building projects.	Quality dependent	<ul style="list-style-type: none"> • Client satisfaction • Project safety • Legal environmental issues addressed • Completed on time • Completed within budget • Project durability 	Ordinal internal	Questionnaire	Descriptive statistics	Arithmetic, mean standard deviation, frequencies, percentage inferential linear regression
To determine how resource distribution affects the final product of house construction	Resource allocation independent	<ul style="list-style-type: none"> • Project budgeting • Project financing • Goal setting • Resource allocation conflict resolution. 	Ordinal Interval	Questionnaire	Descriptive statistics	Arithmetic, mean standard deviation, frequencies, percentage inferential linear regression
To assess the influence of schedule management on quality of housing projects	Schedule management independent	<ul style="list-style-type: none"> • Detailed study of design and site plan • Set definite start and end date • Activity frequency • Estimate housing project duration 	Ordinal Interval	Questionnaire	Descriptive statistics	Arithmetic, mean standard deviation, frequencies, percentage inferential linear regression

For the purpose of analyzing the effect that risk management has on the final product of residential construction projects.	Risk management independent	<ul style="list-style-type: none"> • Risk management plan • Risk identification • Risk assessment • Monitor mitigation • Risk Monitor 	Ordinal Interval	Questionnaire	Descriptive statistics, mean, standard deviation, frequencies, percentage inferential linear regression
To assess the influence of stakeholder management on the quality of housing projects	Stakeholder management independent	<ul style="list-style-type: none"> • Stakeholder mapping/analysis • Stakeholder opinion and participation • Stakeholder view • Problem solving and management 	Ordinal Interval	Questionnaire	Descriptive statistics, mean, standard deviation, frequencies, percentage inferential linear regression

CHAPTER 4

DATA ANALYSIS,PRESENTATION AND INTEROPERATIONS AND DISCUSSION.

4.1 Introduction

In this chapter, there is an analysis of the data, presentations, and an explanation of the conclusions of the study. The purpose of this research was to investigate the ways in which different project management methods influence the overall quality of construction projects in Parklands Sub county, which is located inside Nairobi County in Kenya.

4.2 Questionnaires Return Rate

The response rate was 85.4%, which was based on the 88 questionnaires that were mailed back out of the total 103 that were sent out. Questionnaire return rate of at least 80.0% according to Fincham(2008) is considered satisfactory and sufficient. Therefore it goes without saying that 85.4 questionnaire return rate is very suitable for providing conclusive observation by the researcher.

4.3 Demographic Data of respondents

In this section, background information about the survey participants was supplied in great detail, and it was then meticulously evaluated, interpreted, and presented. The following categories of data were requested: gender, age, educational level, and years of professional experience.

4.3.1 Gender of the Respondents

The participants' sex identities were a primary research interest, and the results may be shown in Table 4.1.

Table 4.1 Gender of the Respondents

Category	Frequency	Percent
Male	77	87.5
Female	11	12.5
Total	88	100.0

From the table 4.1 male respondents were 77 representing 87.5% while female respondents were 11 representing 12.5%. The proportion of men outmatched that of female responders by 75% (87.5% - 12.5%) confirming the old adage of bias of more men in the construction industry.

4.3.2 Age of Respondents

It was requested of the respondents that they specify their age within the ranges of 21 to 30 (19.3%), 31 to 40 (35.2%), 41 to 50 (37.5%), 51 to 60 (8.0%), and above 60 years old (0%). Everyone who participated in the survey was an adult, and as such, they all possess independent thought. Due to their extensive prior knowledge in the sector, they were able to provide answers after doing the necessary research.

Table 4.1 Age group of Respondents

	Frequency	Percent	
Valid	21-30	17	19.3
	31-40	31	35.2
	41-50	33	37.5
	51-60	7	8.0
	Above 60	0	0
Total	88	100.0	

4.3.3 Education of Respondents

The respondents were asked to identify their greatest degree of education, and the results are summarized in table 4.3 below.

Table 4.2 Education level of respondents

	Frequency	Percent	
Valid	Diploma	36	40.9
	Bachelor's degree	37	42.0
	Post graduate	15	17.1

Total	88	100.0
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Table 4.3 shows the level of education with diploma (40.9%), Bachelors degree (42.0%) and postgraduates (17.1%). This ascertain the literacy level of the respondents and the validity of their response in answering the questionnaire.

4.3.4 Work experience

As shown in table 4.4, respondents were asked to choose the appropriate category based on their cumulative years of experience in the construction sector.

Table 4.3 Work experience in years.

	Frequency	Percent
1-5yrs	14	15.9
6-10yrs	28	31.8
11-15yrs	23	26.1
16-20yrs	15	17.0
Over 20yrs	8	9.2
Total	88	100.0

4.3.5 Position

Respondents were asked to indicate which position or specific role they hold in the construction industry and table 4.5 shows the position.

Table 4.4 Position in the construction industry

Category	Frequency	Percent
Contractors	10	11.4
Project managers	16	18.2
Project engineers	23	26.1
Architects	9	10.2
Quantity surveyors	14	15.9
Building inspectors	7	8.0
New Home Owners	9	10.2

Table 4.5 provides a summary of the frequency with which various professionals working in the construction sector were questioned for this research. These professions include architects (10.2%), quantity surveyors (15.9%), building inspectors (8.0%), and new house owners (10.2%). This indicate all the parties in the construction industry were sufficiently covered in developing this study.

4.4 Findings on Quality of Buildings in Parklands Sub county

Quality of Buildings in Parklands was the dependent variable .The indicators were client satisfaction, project safety, legal & environmental issues ,budget and project durability. The goal of this study was to evaluate the degree to which professionals, and ultimately clients (house owners), rate the quality of homes. Therefore, separate questions were directed at both the experts and the house owners, asking each group to identify how they assessed the question of quality, and the results are as follows:

The extent to which different project management approaches have an impact on quality is shown in Table 4.6 below. Because homeowners are the consumers, we asked them to review the quality of the product they had bought because they are the ones who really used it.

Table 4.5 Quality of housing project - Dependent

Items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	N	Mean	Standard deviation
My family and I feel safe in this house	0(0%)	3(3.4%)	18(20.5%)	27(30.7%)	40(45.5%)	88	4.26	0.789
My family and I feel this house will be durable for more than 20yrs without major repairs	0(0%)	4(4.5%)	13(14.8%)	39(44.3%)	32(36.4%)	88	4.23	0.700
Satisfied clients implies quality of	0(0%)	5(5.7%)	12(13.6%)	43(48.9%)	28(31.8%)	88	4.19	0.671

houses is satisfactory									
The quality of houses is satisfactory	0(0%)	4(4.5%)	22(25.0%)	34(38.6%)	28(31.6%)	88	4.07	0.773	
I feel NEMA will not pull down this house because of environmental issues	1(1.1%)	6(6.8%)	19(21.6%)	38(43.2%)	24(27.3%)	88	4.04	0.761	
The quality of this house is value for money	3(3.4%)	8(9.1%)	14(15.9%)	41(46.6%)	22(25.0%)	88	4.03	0.779	
Combined mean and standard deviation						88	4.14	0.746	

The combined mean and standard deviation for this parameter was 4.14 and 0.746 respectively. The items whose mean was above 4.14 were notably ;my family and I feel safe in this house, my family and I feel this house will be durable for more than 20 years without major repairs and satisfied clients implies quality of housing is satisfactory. The items whose means exceeded the combined mean of 4.14 were; my family and I feel safe in this house, my family and I feel this house will be durable for more than 20 years without major repairs and satisfied clients indicate quality of housing is satisfactory. The items that were below the combined mean of 4.14 were; the quality of housing is satisfactory, I feel Nema will not pull down this house because of environmental issues and the quality of this house is value for money. A standard deviation of 0.746 meant a well distributed data around the mean which implies that the data obtained was reliable. This means that the standard deviation positively agrees that quality of housing in Parklands is affected by management practices. Proper management practices enhanced the quality of buildings.

4.5 Findings on Resource allocation in Housing and Quality of housing in Parklands.

Resource allocation was a variable for this research and the indicators were project budget, project financing, staffing and resource conflict resolution.

4.5.1 Descriptive data for resource allocation and quality of housing projects.

It was requested of the respondents that they assess six different aspects relating to the resource allocation processes and the quality of the housing project in the Parklands Sub county. Table 4.8 contains the answer that was received.

Table 4.6 Descriptive data for resource allocation and quality of housing projects.

Items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	N	Mean	Standard deviation
Resource budgeting are key in final outcome of housing project	1(1.1%)	8(9.1%)	9(10.2%)	25(28.5%)	45(51.1%)	88	4.43	0.742
Resource financing influence the outcome of project	1(1.1%)	10(11.4%)	12(13.6%)	27(30.7%)	38(88.6%)	88	4.31	0.778
Resources influences the day progress and housing project	1(1.1%)	3(3.4%)	3(3.4%)	29(33.0%)	52(59.1%)	88	4.54	0.684
There is a plan to solve issue of cash reduction	4(4.5%)	4(4.5%)	20(22.7%)	21(23.9%)	39(44.3%)	88	4.13	0.941
Planning of human resource as a project team influences the outcome of housing project	1(1.1%)	1(1.1%)	18(20.5%)	30(34.1%)	38(43.2%)	88	4.20	0.847
There is regular revisiting of project budget	1(1.1%)	5(5.7%)	27(30.7%)	21(23.9%)	34(38.6%)	88	3.97	0.970
Combined mean and standard deviation					88	4.26	0.827	

Table 4.7 shows that the average amount of money spent on Parklands building projects and the average quality of those buildings are 4.26 and 0.827, respectively. The combined mean of 4.26 indicates that most respondents are confident that resource planning, resources have an essential part in the eventual product, and resources affect the course of the day. The items with composite mean less than 4.26 were; there is a plan to solve the issue of cash reduction, planning of human resource as a team influence the outcome of housing project and revisiting of project budget. The composite mean of 4.26 means that yes truly the statement resource allocation influences the quality of buildings stands and is true to the study findings.

4.5.2 Correlation between Resource allocation and Quality of Housing project in Parklands

Using Pearson's correlation technique, this research set out to determine whether there was a connection between funding priorities and the final product quality of housing developments in Parklands Sub County.

Table 4.7 Pearson correlation matrix

		Quality of housing project	Resource Management
Quality of housing project	Pearson Correlation	1	.666**
	Sig. (2-tailed)		.000
	N	88	88
Resource Management	Pearson Correlation	.666**	1
	Sig. (2-tailed)	.000	
	N	88	88

** . Correlation is significant at the 0.01 level (2-tailed).

In a Pearson bivariate correlation study, housing project quality served as the dependent variable, while housing project location served as the independent variable (Resource allocation practices). Statistical analysis of the relationship between resource allocation methods and the quality of housing projects is shown in Table 4.8 ($r=0.666$, $p05$). As shown, both the positive and negative impacts of resource allocation on the quality of the Parklands Subcounty housing project are significant.

According to the hypothesis that was tested, there is not a meaningful connection between the methods of resource distribution and the quality of housing developments in the Parklands Subcounty. The results in Table 4.8 suggest that the null hypothesis may be rejected since there is support for a 95% confidence interval, $p < 0.05$, indicating that resource allocation approaches have an influence on the quality of housing projects.

4.5.3 Regression analysis of Resource allocation and Quality of buildings in Parklands.

The study employed multiple regression analysis aimed at generating the model summary, analysis of variance (ANOVA) and regression coefficients.

Table 4.8 Regression of resource allocation and Quality of housing in Parklands sub county

Model Summary

The model summary consist of the R value, R square value, Adjusted R square value, Std. error of the estimates and change statistics.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.666a	.444	.437	.550	.444	60.659	1	76	.000

a. Predictors: (Constant), Quality of house

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	18.330	1	18.330	60.659	.000b
1	Residual	22.965	76	.302		
	Total	41.295	77			

a. Dependent Variable: Resource allocation practices

b. Predictors: (Constant), Quality of housing project

Coefficients

Model		Unstandardized Coefficients		Standardized	t	Sig.
		B	Std. Error	Coefficients		
	(Constant)	1.748	.352		4.959	.000
1	Resource financing influences in the outcome of a project	.627	.081	.666	7.788	.000

a. Dependent value: Resource allocation practices

The coefficient of correlation R for the model, which can be seen in Table 4.9, was 0.666, indicating that there is a substantial association between resource allocation techniques and the quality of housing project. The value of the coefficient of determination, which is also often referred to as R square, was 0.444. According to this, 44.4% of the variance in the quality of the housing project may be attributed to the resource management procedures. The remainder of 55.6% was explained by other factors.

From the ANOVA results Table 4.9, resource allocation practices had a significant impact on quality of housing project in Parklands Sub county, $f(1,76)=60.659$, $p<0.05$). This illustrates that the regression model was able to predict the quality of the housing project in the Parklands Sub county with a level of statistical significance.

If resource allocation techniques were not taken into account, the coefficient table in Table 4.9 reveals that even if all other aspects of the housing project remained same, its overall quality would not deviate from the value of 1.748. In addition, an increase of one unit in resource allocation procedures would result in a 0.627 standard deviation in the quality of the housing project.

4.5.4 Discussion on the influence of resource allocation and quality of buildings in Parklands sub county

The primary conclusion that could be drawn from the descriptive data was that the methods of resource allocation led to an improvement in the quality of the housing projects located in the Parklands Sub county. In addition, the findings of the correlation revealed that a rise in the amount of resources allocated led to a little improvement in the quality of the housing project.

The results are in line with those that were discovered in an investigation that Pamela Wanja carried out (2017). This study's findings corroborate those of a previous study that set out to identify the elements that determine the efficacy of WFP-funded activities carried out by NGOs in Kenya. The second study's goal was to identify these antecedents.

Conclusions from this research show that resource allocation improves project quality and efficiency in both broad and narrow senses. Additional study by Vivi Mary Elizabeth (2020) on the impacts of Monitoring and Evaluation on the performance of Housing projects in Nairobi indicated that resource allocation had a positive influence on the overall quality of the projects. According to the Phillip Crosby management theory when proper resource allocation and management is done well, then the management team is more than assured of better quality of the project.

4.6 Findings on schedule management and quality of housing projects in Parklands sub county

Schedule management was a variable in this research and the indicators were timing of the project, knowledge of the project design and internal monitoring of the project.

4.6.1 Descriptive Data for schedule management and quality of housing projects in Parklands subcounty.

The researcher asked respondents to rate six items describing the schedule management practices and quality of housing project on a scale of 1-5 ,5 denoting strongly agree and 1 denoting strongly disagree and the results is as tabulated in the Table 4.10

Table 4.9 Data on schedule management and quality of housing projects in Parklands

Items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	N	Mean	Standard deviation
Setting a finite start and end time for the housing projects influences the end dates	1(1.1%)	2(2.3%)	9(10.2%)	33(37.5%)	43(48.9%)	88	4.33	0.802
Understanding of housing design influences the flow stages in building	2(2.3%)	15(17.0%)	15(17.0%)	33(37.5%)	1(1.1%)	88	4.82	.697
Adherence to initial housing design with minimum changes influences completion time	1(1.1%)	1(1.1%)	24(27.3%)	21(23.9%)	41(46.6%)	88	4.16	0.913
Project team internal monitoring ensures completion on schedule	1(1.1%)	2(2.3%)	16(18.2%)	33(37.5%)	36(40.9%)	88	4.18	0.815
Every project activity duration estimate is important to ensure completion on schedule	2(2.3%)	1(1.1%)	21(23.9%)	33(37.5%)	31(35.2%)	88	4.06	0.867
Activity sequences and time management is important in ensuring successful completion of project on schedule	1(1.1%)	2(2.3%)	15(17.0%)	39(44.3%)	31(35.2%)	88	4.14	0.780
Combined mean and standard deviation						88	4.28	0.813

From the data in Table 4.10 the composite mean and standard deviation for schedule management and quality of housing is 4.28 and 0.813 respectively. The items which had a mean greater than the composite mean were; setting a finite start and end time for housing projects influence the end date and understanding of housing design influence the flow stages in housing. The items that had a mean lower than the combined mean were; Adherence to initial housing design with minimum changes influences completion time, Project team internal monitoring ensures completion on schedule, Every project activity duration estimate is important to ensure completion on schedule and Activity sequences and time management is important in ensuring successful completion of project on schedule.

4.6.2 Correlation between schedule management and quality of housing projects in Parklands

It was hypothesized that the efficiency with which Parklands's housing projects were completed on time and their overall quality were connected, thus we utilized Pearson's correlation analysis to test this hypothesis. Results are shown in Table 4.11 below.

Table 4.10 Correlation analysis between schedule management practices and quality of housing project in Parklands Subcounty.

		Quality of housing project	Schedule Management Practice
Quality of housing project	Pearson Correlation	1	.694**
	Sig. (2-tailed)		.000
	N	88	88
Schedule Management Practice	Pearson Correlation	.694**	1
	Sig. (2-tailed)	.000	
	N	88	88

** . Correlation is significant at the 0.01 level (2-tailed).

The existence of a connection between the dependent variable (Quality of housing project) and the independent variables (location, budget, and timeline) was tested using a Pearson bivariate correlation analysis (Schedule management practices). Table 4.11 shows a positive correlation between housing project quality and schedule management measures ($r = 0.694$, $p < 0.05$). The results indicate that in the Parklands Subcounty, the quality of the housing project being built is strongly influenced by the management of the schedule.

According to the hypothesis with no alternative, there is no meaningful connection between the methods of Schedule management and the caliber of housing projects in the Parklands Subcounty. Table 4.12 shows that the results reject the null hypothesis since there is evidence to support the 95% confidence interval, $p < 0.05$, indicating that Schedule management techniques have an effect on the quality of the housing project.

4.6.3 Regression of schedule management practices and quality of housing projects in Parklands subcounty

The study employed multiple regression analysis aimed at generating the model summary, analysis of variance (ANOVA) and regression coefficients.

Table 4.11 Regression of schedule management practices and quality of housing in Parklands Subcounty

Model Summary

The model summary consist of the R value, R square value, Adjusted R square value, Std. error of the estimates and change statistics.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.694 ^a	.482	.476	.661	.482	79.127	1	85	.000

a. Predictors: (Constant), Quality of housing project

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	34.590	1	34.590	79.127	.000 ^b
	Residual	37.157	85	.437		
	Total	71.747	86			

a. Dependent Variable: Schedule Management practices

b. Predictors: (Constant), Quality of housing project

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.903		2.422	.018	
	Schedule Management practices	.779	.088	.694	8.895	.000

a. Dependent value: Quality of housing project

The summary of the model can be seen in Table 4.12, where the coefficient of correlation R was calculated to be 0.694. This indicates that there is a significant connection between the practices of Schedule Management and the quality of housing projects. The value of the coefficient of determination, which is also often referred to as R square, was 0.482. According to this, 48.2% of the variance in the quality of the housing project may be attributed to the methods of schedule management. The remainder of 51.8% was explained by other factors.

From the ANOVA results Table 4.12, Schedule Management practices had a significant impact on quality of housing project in Parklands Subcounty, $f(1,85)=79.127, p<0.05$). This illustrates that the regression model was able to predict the quality of the housing project in the Parklands Subcounty with a level of statistical significance.

The coefficient table in Table 4.12 shows that when other factors were held constant, quality of housing project would remain constant at 0.903 where Schedule Management practices was not factored in. In addition, a rise of one unit in the practices of schedule management would result in a variance of 0.779 in the quality of the housing project.

4.6.4 Discussion on influence of schedule management practices and quality of housing in Parklands subcounty

The main finding from descriptive data was that resource allocation practices enhanced the quality of housing project in Parklands Subcounty. Further, the correlation results suggested that an increase in resource allocation led to a moderate rise in the quality of housing project.

A research conducted by Enchassi (2017) on the performance of buildings in the Gaza strip found that schedule management, which involves specifying a specific start time and an end time for the project, affects the quality of the projects. The study's findings imply that the quality of finished goods may increase or decrease depending on how strictly deadlines are adhered to. This conclusion agrees with this study that proper schedule management positively affected the quality of housing projects. The conclusions of this research were agreed upon by a subsequent study conducted by Wawak Mladen(2020), which found that a scheduled schedule of operations from the beginning to the finish impacts the quality of the outcome of housing projects. The Deming cycle theory agrees with the findings of this research where a sequential plan of action which follow each others systematically had a positive impact on the influence of schedule management on quality. Schedule management positively influenced the quality of housing projects positively.

4.7 Findings on risk management practices and quality of housing projects in Parklands subcounty

Risk management practices was the variable in this research and the indicators were risk identification, plan, assessment and analysis.

4.7.1 Descriptive Data for Risk management practices and quality of housing projects in Parklands subcounty

The research sought to know from the respondents on seven issues on a scale of 1-5,5 being strongly agree and 1 strongly disagree whether risk management affected quality of housing projects in Parklands subcounty and the results tabulated in table 4.14.

Table 4.12 Descriptive Data on risk management practices and quality of housing projects in Parklands subcounty

Items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	N	Mean	Standard deviation
Risk management plan influences the outcome of housing project	1(1.1%)	0(0%)	14(15.9%)	37(42.0%)	36(40.9%)	88	4.22	0.794
Risk identification and mitigation influences	1(1.1%)	1(1.1%)	15(17.0%)	39(44.3%)	32(36.4%)	88	4.75	0.769

housing project Project risk factors identified in project cycle influences housing project	0(0%)	1(1.1%)	25(28.4%)	28(31.8%)	34(38.6%)	88	4.11	0.823
Risk assessment influence completion of housing project	0(0%)	1(1.1%)	25(28.4%)	28(31.8%)	34(38.6%)	88	4.08	0.847
Risk analysis and mapping influences housing project	1(1.1%)	0(0%)	21(23.9%)	30(34.1%)	33(37.5%)	88	4.11	0.859
Risk management influences the completion time of housing project	1(1.1%)	3(3.4%)	21(23.9%)	30(34.1%)	33(37.5%)	88	4.20	0.805
Risk management influences project quality	0(0%)	1(1.1%)	18(20.5%)	31(35.2%)	38(43.2%)	88	4.16	0.992
Combined mean and standard deviation				88	4.23	0.841		

From the data in Table 4.13 the combined mean was 4.23 and the standard deviation was 0.841. The items that had a mean above the combined mean was; Risk identification and mitigation influences housing project. The items that had a mean below the combined mean were; Risk management plan influences the outcome of housing project, Project risk factors identified in project cycle influences housing project, Risk assessment influence completion of housing project, Risk analysis and mapping influences housing project, Risk management influences the completion time of housing project and Risk management influences project quality.

4.7.2 Correlation between risk management practices and quality of housing projects in Parklands subcounty

Pearson correlation analysis was used to establish a link between risk management and the quality of construction projects for homes. The results are shown in Table 4.14.

Table 4.13 Correlation analysis between risk management practices and quality of housing projects in Parklands

		Quality of housing project	of Risk Management Practice
Quality of housing project	Pearson Correlation	1	.574**
	Sig. (2-tailed)		.000
	N	88	88
Risk Management Practice	Pearson Correlation	.574**	1
	Sig. (2-tailed)	.000	
	N	88	88

** . Correlation is significant at the 0.01 level (2-tailed).

The quality of the housing project was the dependent variable, and Pearson's bivariate correlation analysis was employed to see whether there was a link between the two (Risk Management Practice). A somewhat significant connection ($r=0.574$, $p<0.05$) between Risk Management Practice and housing project quality is shown in Table 4.14. According to the available data, Risk Management Practice has a substantial impact on the quality of new construction in the Parklands Subcounty.

The null hypothesis proposes that there is no association between Risk Management Practice and the quality of the housing project being created in the Parklands Subcounty. The null hypothesis is rejected by the data in Table 4.14 due to the existence of evidence for the 95% confidence interval and $p<0.05$, indicating that risk management procedures do affect the quality of housing developments.

4.7.3 Regression analysis of risk management practices and quality of housing projects in Parklands subcounty

The study employed multiple regression analysis aimed at generating the model summary, analysis of variance (ANOVA) and regression coefficients.

Table 4.14 Regression of risk management practices and quality of housing in Parklands Subcounty

Model Summary

The model summary consist of the R value, R square value, Adjusted R square value, Std. error of the estimates and change statistics.

Model R R Square Adjusted R Std. Error of the Change Statistics

		Square	Estimate	R	SquareF	Change	df1	df2	Sig.	F
				Change					Change	
1	.574 ^a	.330	.321	.612	.330	38.335	1	78	.000	

a. Predictors: (Constant), Quality of housing project

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	14.351	1	14.351	38.335	.000b
1	Residual	29.199	78	.374		
	Total	43.550	79			

a. Dependent Variable: Risk Management Practices

b. Predictors: (Constant), Quality of housing projects

Coefficients^a

Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.
		B	Beta		
	(Constant)	2.364		6.958	.000
1	Risk Management Practices	.497	.574	6.192	.000

a. Dependent Variable: Quality of housing projects

Model summary statistics may be shown in Table 4.15, where R is 0.574. This data reveals a direct link between risk management strategies and completed residential building projects. The square root of the coefficient of determination, or R, came out to be 0.330. This indicates that 33.0% of the variance in the quality of the housing project may be attributed to the risk management methods that were used. Other variables were responsible for explaining the remaining 67.0% of the variance.

Results from an ANOVA are shown in Table 4.15; they indicate that the quality of the Parklands Subcounty housing project was substantially affected by the use of risk management strategies ($f(1,78)=38.335, p<0.05$). The results demonstrate that the regression model significantly improved upon the original model's ability to forecast the quality of the Parklands Subcounty housing project.

The coefficient table in Table 4.15 shows that when other factors were held constant, quality of housing project would remain constant at 2.364 where risk management practices was not factored in. Additionally, an increase of one unit in risk management procedures would result in a difference of 0.497 in the quality of the housing project.

4.7.4 Discussion on influence of risk management practices and quality of housing in Parklands subcounty

The main finding from descriptive data was that risk management practices enhanced the quality of housing project in Parklands Subcounty. Further, the correlational results suggested that an increase in risk management led to a moderate rise in the quality of housing project.

A study by Abazid & Harb(2018) identified risks to a project as an issue that can adversely affect negatively the quality of housing project. The study agrees with this research that risk management when properly done will have either a positive or negative effect on the quality of housing projects. According to another study by Lim(2018), the management of risks in a housing project considerably showed significant impact on the quality of housing project. The study agrees with this research work. Yet according to the Deming cycle theory when the project plan is at the study phase, it is very important for the project team to map out the risk factors because scientifically managing the project risks will ultimately affect positively the quality of housing. This theory better agrees with this study and the results that proper risk management significantly affected positively the quality of housing projects.

4.8 Findings on stakeholder management practices and quality of housing projects in Parklands subcounty

Stakeholder management practices was the variable in this research and the indicators were stakeholders' opinion, consultation, assessment and unforeseen conflict

4.8.1 Descriptive Data for stakeholder management practices and quality of housing projects in Parklands subcounty

The researcher sought to know from the respondents on a scale of 1-5, 5 being strongly agree and 1 being strongly disagree on six parameters and the findings were tabulated as in the table 4.17.

Table 4.15 Descriptive Data on stakeholder management and quality of housing projects in Parklands subcounty.

Items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	N	Mean	Standard deviation
Solving unforeseen conflicts influence completion of housing project	2(2.3%)	3(3.4%)	11(12.5%)	30(34.1%)	42(47.7%)	88	4.29	0.824
Stakeholder opinion and input before development influence completion of housing project	0(0%)	1(1.1%)	26(29.5%)	30(34.1%)	31(35.2%)	88	4.06	0.812
Stakeholder reviews and evaluation affect housing project	1(1.1%)	2(2.3%)	29(33.0%)	20(22.7%)	36(40.9%)	88	4.03	0.921
Stakeholder assessment of the project influence the project	3(3.4%)	3(3.4%)	27(30.7%)	23(26.1%)	32(36.4%)	88	3.99	0.919
Stakeholder community consultation influences housing project	1(1.1%)	5(5.7%)	22(25.0%)	29(33.0%)	31(35.2%)	88	4.08	0.829
Stakeholder participation in project design influences the housing project	4(4.5%)	6(6.8%)	24(27.3%)	16(18.2%)	38(43.2%)	88	4.07	0.979
Combined mean and standard deviation					88	4.09	0.881	

From the Data in table 4.16 the combine mean was 4.09 and standard deviation was 0.881. The items that had a mean above 4.09 was; Solving unforeseen conflicts influence completion of housing project. The items that had a mean lower than the combined mean were; Stakeholder opinion and input before development influence completion of housing project, Stakeholder reviews and evaluation affect housing project, Stakeholder assessment of the project influence

the project, Stakeholder community consultation influences housing project and Stakeholder participation in project design influences the housing project.

4.8.2 Correlation between stakeholder management practices and quality of housing projects in Parklands subcounty

Analysis of the relationship between stakeholder management strategies and Parklands house quality was conducted using a Pearson correlation. The outcomes are shown in Table 4.17.

Table 4.17 Correlation analysis between stakeholder management practices and quality of housing projects in Parklands subcounty

		Quality of housing projects	of Stakeholder Management Practice
Quality of housing projects	Pearson Correlation	1	.624**
	Sig. (2-tailed)		.000
	N	88	88
Stakeholder Management Practice	Pearson Correlation	.624**	1
	Sig. (2-tailed)	.000	
	N	88	88

** . Correlation is significant at the 0.01 level (2-tailed).

The Pearson bivariate correlation research employed the quality of the housing project as the dependent variable and the location as the independent variable to find the strength of the link between the two (stakeholder management practices). Table 4.17 reveals a somewhat good association between stakeholder management practices and housing project quality ($r=0.624$, $p<0.05$). The results indicate that the quality of housing developments in the Parklands Subcounty is significantly affected by how well stakeholder management techniques are executed.

According to the hypothesis of no significant link, the stakeholder management techniques and the quality of housing projects in the Parklands Subcounty are not significantly related to one another. Because there is evidence to support 95% confidence interval, $p<0.05$, which signals the effect of stakeholder management techniques on quality of housing project, the null hypothesis may therefore be rejected based on the data that are shown in Table 4.17.

4.8.3 Regression of stakeholder management practices and quality of housing projects in Parklands subcounty

The study employed multiple regression analysis aimed at generating the model summary, analysis of variance (ANOVA) and regression coefficients.

Table 4.16 Regression of stakeholder management practices and quality of housing in Parklands Subcounty

Model Summary

The model summary consists of the R value, R square value, Adjusted R square value, Std. error of the estimates and change statistics.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.624 ^a	.389	.382	.651	.389	52.875	1	83	.000

a. Predictors: (Constant), Stakeholder management practices

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	22.433	1	22.433	52.875	.000 ^b
1	Residual	35.214	83	.424		
	Total	57.647	84			

a. Dependent Variable: Stakeholder management practices

b. Predictors: (Constant), Quality of housing project

Coefficients

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
	Standardized Coefficients			
	Beta			

	(Constant)	1.673	.367		4.555	.000
1	Stakeholder opinion and input before development completion of housing project	.642	.088	.624	7.272	.000

a. Dependent Variable: Quality of housing project.

In the model's summary statistics, shown in Table 4.18, we discover a R value of 0.624. This points to the importance of stakeholder management strategies in determining the success of a housing project. The square root of the coefficient of determination came out to be 0.389. In light of this, it may be deduced that the stakeholder management techniques were responsible for explaining 38.9% of the variance in the quality of the housing project. The remainder of 61.1% was explained by other factors.

An analysis of variance (ANOVA) shows in Table 4.18 that stakeholder involvement in project management significantly improved the quality of the Parklands Subcounty housing development. That the regression model accurately predicted the quality of the Parklands Subcounty housing project is evidence of its validity.

The coefficient table in Table 4.18 shows that when other factors were held constant, quality of housing project would remain constant at 1.673 where Stakeholder management practices was not factored in. Additionally, an increase of one unit in stakeholder management techniques would result in a difference of 0.642 in the quality of the housing project.

4.8.4 Discussion on Influence of Stakeholder management practices and quality of housing projects in Parklands subcounty

The main finding from descriptive data was that Stakeholder management practices enhanced the quality of housing project in Parklands Subcounty. Further, the correlational results suggested that an increase in Stakeholder management practices led to a moderate rise in the quality of housing project. A research done by Matu et al (2020) found in conclusion that proper stakeholder need management affects the quality of housing projects. The outcomes of this investigation are consistent with this conclusion. Stakeholder management's impact on quality was further supported by the results of a different study by Nangoli (2016). The research noted that opinions

and influence of stakeholders are critical in directing whether the building will achieve the desired quality standards .These findings agree with the Deming Cycle Theory with greater emphasis on the plan stage where various inerst group insights are taken acre of and if need be mitigation occurs.Thus in summary yes indeed stakeholder management affects the quality of housing projects according to this research.

4.9 Findings on Project Management Practices and quality of housing projects in Parklands subcounty

Project management practices was the variable in this research and the indicators were project safety, client’s satisfaction, NEEMA approval, project lifespan, professionalism and inspections.

4.9.1 Descriptive Data for Project Management Practices and quality of housing projects in Parklands subcounty

The researcher sought to know from the respondents on a scale of 1-5,5 being strongly agree and 1 being strongly disagree on seven parameters and the findings were tabulated as in the table 4.19.

Table 4.17 Descriptive Data on Project Management Practices and quality of housing projects in Parklands subcounty.

Items	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	N	Mean	Standard deviation
The safety of houses influences client’s satisfaction	1(1.1%)	4(4.5%)	17(19.3%)	43(48.9%)	22(25.0%)	88	3.97	0.804
Client satisfaction is proportiona l to quality of houses or satisfied clients imply quality of houses is	1(1.1%)	4(4.5%)	21(23.9%)	37(42.0%)	25(28.4%)	88	3.95	0.848

good

The lifespan of houses is related to quality of housing project	3(3.4%)	4(4.5%)	22(25.0%)	36(40.9%)	23(26.1%)	88	4.51	0.573
NEMA approval influences the final housing project	2(2.3%)	3(3.4%)	25(28.4%)	45(51.1%)	13(14.8%)	88	3.79	0.738
Houses completed within budget rate influences quality	3(3.4%)	3(3.4%)	29(33.0%)	40(45.5%)	13(14.8%)	88	3.74	0.758
Professional conduct influences quality of buildings	2(2.3%)	1(1.1%)	30(34.1%)	20(22.7%)	35(39.8%)	88	4.03	0.900
The inspection of the construction stages is satisfactory	0(0%)	3(3.4%)	19(21.6%)	37(42.0%)	29(33.0%)	88	4.12	0.747

Combined mean and standard deviation 88 4.02 0.767

From the Data in table 4.19 the combine mean was 4.02 and standard deviation was 0.767. The items that had a mean above the combined mean of 4.02 were; The lifespan of houses is related to quality of housing project; Professional conduct influences quality of buildings and The inspection of the construction stages is satisfactory. The items that had a mean of lower than the

combined mean of 4.02 were; The safety of houses influences client’s satisfaction, Client satisfaction is proportional to quality of houses or satisfied clients imply quality of houses is good, NEMA approval influences the final housing project and Houses completed within budget rate influences quality. For 0.767 to be the standard deviation it clearly means that the data was quite closely distributed around the mean, thus the data was reliable.

4.9.2 Correlation between project management practices and quality of housing projects in Parklands subcounty

Analysis of the relationship between stakeholder management strategies and Parklands house quality was conducted using a Pearson correlation. The results are shown in Table 4.20.

Table 4.20 Correlation analysis between stakeholder management practices and quality of housing projects in Parklands subcounty

		Quality of housing project	of Project Management Practices
Quality of housing Project	Pearson Correlation	1	.667**
	Sig. (2-tailed)		.000
	N	88	88
Project Management Practices	Pearson Correlation	.667**	1
	Sig. (2-tailed)	.000	
	N	88	88

** . Correlation is significant at the 0.01 level (2-tailed).

In a Pearson bivariate correlation research, we looked at the association between housing project quality and location. The quality of the housing project served as the dependent variable, while location served as the independent variable (Project management practices). As can be shown in Table 4.20, there is a statistically significant positive connection ($r=0.667$, $p<0.05$) between the quality of the housing project and the project management approaches used. These findings imply that Parklands Subcounty's housing projects' quality is strongly influenced by the project management techniques used.

According to the evidence, there is no correlation between project management techniques and the high quality of the homes built in Parklands Subcounty. Given the data in Table 4.21, it is clear that the null hypothesis is incorrect, since both the 95% confidence interval and the p value

of less than 0.05 indicate that project management practices do impact the quality of housing developments.

4.9.3 Regression of project management practices and quality of housing projects in Parklands subcounty

The study employed multiple regression analysis aimed at generating the model summary, analysis of variance (ANOVA) and regression coefficients.

Table 4.18 Regression of project management practices and quality of housing in Parklands Subcounty

Model Summary

The model summary consists of the R value, R square value, Adjusted R square value, Std. error of the estimates and change statistics.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.667 ^a	.445	.438	.602	.445	67.361	1	84	.000

a. Predictors: (Constant), Quality of housing project

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	24.430	1	24.430	67.361	.000 ^b
1	Residual	30.465	84	.363		
	Total	54.895	85			

a. Dependent Variable: Project Management Practices

b. Predictors: (Constant), Quality of housing project

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	1.480	.310		4.778	.000
1	Project Management Practices	.629	.077	.667	8.207	.000

a. Dependent Variable: Quality of housing project

As can be observed in Table 4.21, the model's coefficient of correlation R was 0.667, suggesting a strong link between project management techniques and the final product's livability. Coefficient of determination, or R square, was calculated to be 0.445. This implies that 44.5% of variation in the quality of housing project was explained the project management practices. The remainder of 55.5% was explained by other factors.

From the ANOVA results Table 4.21 project management practices had a significant impact on quality of housing project in Parklands Subcounty, $f(1,84)=67.361$, $p<0.05$). This concludes that the regression model significantly predicted the quality of new home construction in the Parklands Subcounty.

The coefficient table in Table 4.21 shows that when other factors were held constant , quality of housing project would remain constant at 1.480 where project management practices was not factored in. In addition, an increase of one unit in project management techniques would result in a difference in housing project quality of 0.629.

4.9.4 Discussion on Influence of project management practices and quality of housing projects in Parklands subcounty.

The main finding from descriptive data was that project management practices enhanced the quality of housing project in Parklands Subcounty. Also, the correlation study showed that more project management strategies linked to a somewhat higher quality of housing developments.

4.9.5 Combined correlation analysis of the variables

Pearson's technique of bivariate correlation was used to examine the link between the dependent and independent variables. Table 4.23 displays the results.

Table 4.19 Pearson correlation matrix

		Quality of housing project	Resource Management practices	Schedule Management practices	Risk Management practices	Stakeholder Management practices	Project Management practices
Quality of housing project	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	88					
Resource Management practices	Pearson Correlation	.666**	1				
	Sig. (2-tailed)	.000					
	N	88	88				
Schedule Management practices	Pearson Correlation	.694**	.471**	1			
	Sig. (2-tailed)	.000	.000				
	N	88	88	88			
Risk Management practices	Pearson Correlation	.574**	.502**	.638**	1		
	Sig. (2-tailed)	.000	.001	.000			
	N	88	88	88	88		
Stakeholder Management practices	Pearson Correlation	.624**	.415**	.388**	.398**	1	
	Sig. (2-tailed)	.000	.000	.000	.000		
	N	88	88	88	88	88	
Project Management practices	Pearson Correlation	.667**	.238*	0.512**	0.359**	0.612**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	88	88	88	88	88	88

** . Correlation is significant at the 0.01 level (2-tailed).

The results of Table 4.22 shows that the strength of the relationship between the dependent variable and the independent variable were in the following order: Schedule Management practices ($r=0.694$), Resource Management practices ($r=0.666$), Stakeholder Management practices ($r=0.624$), Project Management practices ($r=0.624$) and Risk Management practices ($r=0.574$)

4.9.6 Combined Regression analysis of the variables

The study employed multiple regression analysis aimed at generating the model summary, analysis of variance (ANOVA) and regression coefficients.

Table 4.20 Regression analysis

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.854 ^a	.729	.712	.430	.729	43.550	5	81	.000

a. Predictors: (Constant), Resource Management Practices, Schedule Management Practices, Risk Management Practices, Stakeholder Management Practices, Project Management Practices

ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	40.331	5	8.066	43.550	.000 ^b
	Residual	15.003	81	.185		
	Total	55.333	86			

a. Dependent Variable: Quality of housing project

b. Predictors: (Constant), Resource Management Practices, Schedule Management Practices, Risk Management Practices, Stakeholder Management Practices, Project Management Practices

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	.880	.276		3.187	.002		
Resource Management Practices	.002	.009	.015	.256	.009	.944	1.059
Schedule Management Practices	.691	.075	.787	9.249	.000	.463	2.162
Risk Management Practices	.067	.102	.068	.655	.004	.312	3.204
Stakeholder Management Practices	-.276	.118	-.298	-2.341	.022	.207	4.840
Project Management Practices	.340	.103	.331	3.307	.001	.335	2.987

a. Dependent Variable: Quality of housing project

According to the experiment's null hypothesis, there will be no noticeable connection between the variables (the dependent variable and the independent variable). However, the data in Table 4.23 indicate that the null hypothesis should be rejected. This is so because we may confidently draw the conclusion that the independent factors do, in fact, have a major impact on the dependent variable.

Table 4.23 provides a snapshot of the model; there, we find that the correlation coefficient, R , is 0.854. This suggests that the independent factors are significantly associated with the dependent variable. To calculate its square root, the coefficient of determination equaled 0.729. This indicates that the predictor factors accounted for 72.9% of the variation in the dependent variable. Other variables that were not taken into account in the development of this model may account for the remaining 27.1% of the variance.

According to the results of the ANOVA, $f(1,84)=67.361$ and $p<0.05$). Inferences about the quality of the Parklands Subcounty housing project may be made using the regression model, since its predictive power has been shown to be statistically significant.

When every other variable in the model is set to zero, the quality of the housing project would stay the same, remaining at 0.880. This is the case even when other parameters are held constant. Holding other factors constant, one-unit increase in each of the independent variables namely: Resource Management Practices, Schedule Management Practices, Risk Management Practices, Stakeholder Management Practices and Project Management Practices would result into 0.002, 0.691, 0.067, -0.276 and 0.340 respectively. When substituted, the model becomes, $Y = 0.880+0.002X_1+ 0.691X_2+ 0.067X_3- 0.276X_4+0.340X_5+\varepsilon$. Where Y is the quality of housing project in Parklands subcounty, X_1 is Resource Management Practices, X_2 is Schedule Management Practices, X_3 is Risk Management Practices, X_4 is Stakeholder Management Practices and X_5 is Project Management Practices. β_0 is constant and $\beta_1, \beta_2, \beta_3, \beta_4$ are determination coefficients for X_1, X_2, X_3, X_4, X_5 respectively and ε is term of error.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The present research sought to examine how **(topic....in Parklands Subcounty)** In the current chapter, the summary of findings is presented. Also covered are conclusions, recommendations and areas of future study.

5.2 Summary of the Findings

The findings from the present study are given as per the objectives:

5.2.1 The influence of Resource allocation Practices and the Quality of Housing Project in Parklands Subcounty.

The descriptive statistics indicated that the combined mean for resource allocation Practices and the Quality of Housing Project in Parklands Subcounty was 4.26. It may be concluded that the majority of respondents thought that the distribution of resources was a very important aspect of the housing initiative's success. Resource allocation strategies and the quality of a housing project have a positive association ($r=0.666$; $p<0.05$). As a result, there is a direct link between how resources are allocated and the final product of a housing development.

5.2.2 The influence of schedule management Practices and the Quality of Housing Project in Parklands Subcounty.

Descriptive statistics reveal that the Quality of Housing Project in the Parklands Subcounty, as well as time-management strategies, averaged out to a 4.28. Because of this, almost all respondents said that time management techniques significantly impacted the final product of their home building endeavors. The modest positive link between resource allocation techniques and housing project quality was shown by a coefficient of $r=0.694$ ($p<0.05$). As a result, there is a direct link between time management techniques and the quality of finished homes.

5.2.3 The influence of risk management Practices and the Quality of Housing Project in Parklands Subcounty.

According to the descriptive data, the overall mean score for risk management techniques as well as the Quality of Housing Project in the Parklands Subcounty was 4.23. Thus, almost all respondents said that effective risk management practices greatly improved the quality of their building projects. The moderate positive association between risk management techniques and housing project quality ($p < 0.05$) was shown by the coefficient of correlation, $r = 0.574$. The quality of a housing project is positively correlated with the degree to which risks are mitigated.

5.2.4 The influence of stakeholder management Practices and the Quality of Housing Project in Parklands Subcounty.

According to the descriptive data, the average for stakeholder management practices and the Quality of Housing Project in Parklands Subcounty was 4.09. This led the clear majority of respondents to conclude that stakeholder management practices significantly influenced the outcome of the construction project. The coefficient of correlation was $r = 0.624$, which indicated that stakeholder management techniques had a somewhat good link with the quality of the housing project ($p < 0.05$). As a result, there is a considerable beneficial association between the practices of stakeholder management and the quality of the housing project.

5.2.5 The influence of project management Practices and the Quality of Housing Project in Parklands Subcounty.

The descriptive data showed that the Parklands Subcounty's Quality of Housing Project and project management procedures both had mean scores of 4.02. That's why most people who answered the survey said project management techniques made a big difference in the end product of homes. The coefficient of correlation was $r = 0.667$, which indicated that project management methods had a somewhat good link with the quality of the housing project ($p < 0.05$). As a consequence, there is a significant positive correlation, to everyone's advantage, between the methods of project management and the caliber of the housing project.

5.3 Conclusion

The first objective sought to determine how resource allocation Practices influences quality of housing project in Parklands Subcounty. Both correlational and descriptive results lead to the

conclusion that resource allocation Practices has significance influence on the quality of housing project in Parklands Subcounty.

The study's second objective was to look at how time-management techniques impact the quality of construction on residential projects in Parklands's Subcounty. Both the correlational and descriptive studies lead to the conclusion that schedule management practices significantly affect the quality of housing projects in the Parklands Subcounty.

The third objective was to look at how risk management practices affected the overall quality of the Parklands Subcounty housing development. The results of both the correlational and descriptive studies led to the conclusion that risk management measures have a substantial impact on the quality of housing developments in the Parklands Subcounty.

The fourth objective sought to determine how stakeholder management practices influences quality of housing project in Parklands Subcounty. Evidence from both the correlational and descriptive studies lends credence to the notion that strategies for stakeholder management have a considerable impact on the quality of housing developments in the Parklands Subcounty.

The final objective sought to determine how project management practices influences quality of housing project in Parklands Subcounty. Evidence from both the correlational and descriptive analyses of the data supports the conclusion that the techniques of project management have a substantial influence on the quality of housing developments in the Parklands Subcounty.

5.4 Recommendations from the Findings

The following suggestions are offered to the Practitioners and Professionals, the government policy, and suggestions for further studies based on the results and conclusions of this study.

5.4.1 Recommendation for Practitioners and Professionals

The quality of buildings is directly impacted by the management practices of architects, engineers, project managers, quantity surveyors, contractors, and everyone else engaged in the construction process, from the suppliers of raw materials to the finished products. Strict adherence is very critical and the practitioners must deliberately apply good management practices to ensure and sustain quality to projects undertaken by them.

5.4.2 Recommendation for Government Policy

To guarantee that the quality of buildings is maintained in housing developments, the study suggests that the government should be more strict in creating and implementing norms and procedures. Routine validation and training on current trends and reexamining of professionals on sound management practices should be encouraged by relevant government agencies. This is vital for safety, posterity of economies and achievement of Vision 2030 flagship of providing decent affordable housing as an agenda of the government. This research the various agencies and stakeholders work mutually together to adhere proper management practices.

5.5 Suggestions for Further Study

The research suggests the following areas of study,

- i. Factors that contribute to poor management practices in housing projects
- ii. Effects of proper management practices on durability of housing projects
- iii. Extend the study to other subcounties especially where quality issues have been observed resulting in collapsed buildings like Embakasi, Kasarani and Mathare.
- iv. Effect of legal, environmental and stakeholder issues on the finish time of housing projects.

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APPENDICES

Appendix 1

Letter of Transmittal of Data Collection Instruments

LUMALA AMOS LUGASI
UNIVERSITY OF NAIROBI
P.O. BOX 30197-00100
NAIROBI, KENYA
28TH, JULY 2020

Dear Respondent

REF: REQUEST FOR INFORMATION

I am a Master of Arts in project planning and management student at the University of Nairobi conducting a research entitled Influence of Project Management Practices on quality of housing projects in Parklands subcounty ,Nairobi county.

You are one of the respondents who will be asked to submit the essential information and data for the research project, and your participation has been selected. I would be grateful if you could take the time to answer the accompanying questionnaire with patience and consideration. Only scholarly pursuits will make use of the material that has been supplied. Your identifying information will be shielded from view at all times.

Please do not include your name anywhere on this survey. Your assistance is kindly requested.

Yours sincerely,

Lumala Amos
0720398026

Appendix II Questionnaire

The purpose of this study is to investigate the influence of project management practices on quality of Housing Projects: A case of Parklands.

This questionnaire will only be used for academic reasons, and as such, the strictest level of confidentiality will be maintained. Please provide your honest opinion.

Demographic Characteristics of Respondents

1. Gender {Please tick one (√) }

Male [] Female []

Age Group {Please Tick one (√)}

21-30 [] 31-40 [] 41-50 [] 51-60 [] over 60 []

2. Highest Level of Education {Please tick one (√) }

High School [] Certificate [] Diploma [] Bachelors Degree
Post Graduate [] Others (Specify).....

3. Work experience in Construction industry.

For how long have you been working in the Construction Industry?

1-5 yrs[] 6 -10 yrs[] 11- 15 yrs[] 16- 20 yrs[] Over 20 yrs []

4. Indicate your Position

Contractor [] Project manager [] Project Engineer []

Architect [] Quantity surveyor [] Building Inspector []

Others (specify).....

Project Management Practices and Quality of Housing Project

In response to the following questions, kindly mark (√) how much you agree or disagree with each assumption. Use a scale of 1 to 5, where 5 indicates strong agreement, 4 agreement, 3 neutrality, 2 disagreement, and 1 extreme disagreement.

	Statements	5	4	3	2	1
I.	The safety of the houses influences client satisfaction					
II.	Client satisfaction is proportional to quality of houses or satisfied clients imply quality of houses is good.					
III.	The lifespan of houses is related to quality of housing project					
IV.	NEMA approval influences the final housing project					
V.	Houses completed within budget rate influence quality					
VI.	Professional conduct affects the quality of buildings					
VII.	The inspection of the construction stages is satisfactory					

Questionnaire for New Home Owners : Project Management Practices and Quality of Housing Project

In response to the following questions, kindly mark (√) how much you agree or disagree with each assumption. Use a scale of 1 to 5, where 5 indicates strong agreement, 4 agreement, 3 neutrality, 2 disagreement, and 1 extreme disagreement.

	Statements	5	4	3	2	1
I.	My family and/I feel safe in this house					
II.	My family and/I feel this house will be durable for more than 20 years without major repairs					
III.	Satisfied client implies quality of houses is satisfactory					
IV.	The quality of the houses is satisfactory					

V.	I feel NEMA will not pull down this house because of environmental issues					
VI.	The quality of this house is value for money					

Resource allocation and Quality of Housing Project

In response to the following questions, kindly mark (√) how much you agree or disagree with each assumption. Use a scale of 1 to 5, where 5 indicates strong agreement, 4 agreement, 3 neutrality, 2 disagreement, and 1 extreme disagreement.

	Statements	5	4	3	2	1
I.	Resource budgeting are key in final outcome of housing project.					
II	Project financing influences in the outcome of a project					
III	Resources influence the day to day progress and housing project					
IV	There is a plan to solve issue of cash flow reduction.					
V	Planning of human resource as project team influences the outcome of housing project.					
VI	There is regular revisiting of project budget					

Schedule Management and Quality of Housing Projects

In response to the following questions, kindly mark (√) how much you agree or disagree with each assumption. Use a scale of 1 to 5, where 5 indicates strong agreement, 4 agreement, 3 neutrality, 2 disagreement, and 1 extreme disagreement.

	Statements	5	4	3	2	1
I	Setting a finite start and end time for the housing projects influences the end dates.					

ii	Understanding of housing design influences the flow stages in building.					
iii	Adherence to initial housing design with minimum changes influence completion time.					
iv	Project team internal monitoring ensures completion on schedule.					
v	Every project activity duration estimate is important to ensure completion on Schedule.					
vi	Activity sequencing and time management is important in ensuring successful completion of project on schedule.					

Risk Management and Quality of Housing Project

In response to the following questions, kindly mark (√) how much you agree or disagree with each assumption. Use a scale of 1 to 5, where 5 indicates strong agreement, 4 agreement, 3 neutrality, 2 disagreement, and 1 extreme disagreement.

	Statements	5	4	3	2	1
I.	Risk management plan influence the outcome of housing projects.					
II.	Risk identification and mitigation influences housing project					
III.	Project risk factors identified in project cycle affect housing project					
IV.	Risk assessment influences completion of housing project					
V.	Risk analysis and mapping influence housing project					
VI.	Risk management influences the completion time of housing projects.					
VII.	Risk management influences project quality.					

Stakeholder Management and Quality of Housing Project

In response to the following questions, kindly mark (√) how much you agree or disagree with each assumption. Use a scale of 1 to 5, where 5 indicates strong agreement, 4 agreement, 3 neutrality, 2 disagreement, and 1 extreme disagreement.

	Statements	5	4	3	2	1
I.	Solving unforeseen conflicts influence completion of housing project					
II.	Stakeholder opinion and input before development influence completion of housing project					
III.	Stakeholders reviews and evaluation affect housing project					
IV.	Stakeholders assessment of the project influence the project					
V.	Stakeholders community consultation influence housing project					
VI.	Stakeholder participation in project design influences the housing project.					

Thank you

Appendix III: Table for Determining Sample size for a finite population


Krejcie and Morgan Table


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

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

Source: Krejcie & Morgan, 1970


Appendix VI: Research Permit


REPUBLIC OF KENYA


NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY & INNOVATION

Ref No: **861637** Date of Issue: **25/May/2022**


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