PROJECT PLANNING PRACTICES AND PERFORMANCE OF CONSTRUCTION

PROJECTS IN NAIROBI CITY COUNTY, KENYA

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D53/CTY/PT/31973/2015

A Research Project Submitted to the School of Business in Partial Fulfillment of the Requirements for the Award of the Degree in Master of Business Administration (Project Management Option) Kenyatta University.

APRIL 2019
DECLARATION

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

Signature: _____________ Date: ____________

Catherine Muute Ndavi

D53/CTY/PT/31973/2015

I confirm that the work in this project has been carried out by the candidate under my supervision.

Signature: _____________ Date: ____________

Dr. Rosemary James
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School of Business,
Kenyatta University.
DEDICATION

I dedicate this work to my mother Regina Ndavi.
ACKNOWLEDGMENT

The accomplishment of this work has been successful through the continuing technical help of my supervisor Dr. Rosemary James. I give thanks to my employer for providing time and creating great environment for the study. I also appreciate the encouragement and resilience of my family through the tasking period. I am grateful to my colleagues for their ethical support and encouragement. I also gratefully appreciate the respondents for sharing their time and experience for the purpose of this study.

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ABBREVIATIONS AND ACRONYMS

GIS  Geographical Information System
HR   Human Resource
HRM  Human Resource Management
HRMP Human Resource Management Practices
ICT  Information Communication Technology
JIT  Just in Time
KNBS Kenya National Bureau of Statistics
LAPSSET Lamu Port-South Sudan-Ethiopia-Transport
MRP  Material Resource Planning
NACOSTI National Commission for Science, Technology and Innovations
NAMSIP Nairobi Metropolitan Services Improvement Project
PMBOK Project Management Body of Knowledge
SPSS Statistical Package for the Social Sciences
WBS  Work Breakdown Structure
### OPERATIONAL DEFINITION OF TERMS

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<td>Construction Projects</td>
<td>Assembling of building infrastructures in an organized effort to construct a building/structure.</td>
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<td>Financial Planning</td>
<td>Describing each of the resources, activities, equipment as well as materials needed to achieve these objectives, and the involved timeframes.</td>
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<td>Human Resource Planning</td>
<td>This process identifies current as well as future needs of human resources within an organization to attain its goals.</td>
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<td>Material Usage Planning</td>
<td>A process that identifies current as well as future material resources needs in an organization to attain its goals.</td>
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<td>Project Management</td>
<td>This is the application of knowledge, skills, tools, and techniques to project activities to meet the project requirements.</td>
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<tr>
<td>Project Performance</td>
<td>This is the capability of completing the project in line with the required specifications, within the promised time schedule, the specified budget, while keeping the stakeholders as well as customer happy.</td>
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<td>Project Planning</td>
<td>The process of estimating or specifying milestones, timetables, equipment, budget and workforce are specified. It defines the estimation of the time, effort, cost as well as employee resources needed in the execution of the project.</td>
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<tr>
<td>Project Planning Practices</td>
<td>These are the elements that are necessary for a successful project implementation.</td>
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<tr>
<td>Project</td>
<td>A temporary endeavor, which is undertaken after specific cycle of initiation, planning, and execution as well as close to creation of a unique product or service.</td>
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<tr>
<td>Time management</td>
<td>is a process that identifies time targets and project implementation stages in an organization.</td>
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ABSTRACT

Most projects in Nairobi City County have been spending more time than planned as well as energy playing catch up and many of the construction companies unable to complete the allocated contracts in time and others are unable to deliver the quality work as required. Many stakeholders have questioned the performance of construction projects in Kenya in terms of quality and quantity of work they can handle at a time. There have been cases of poorly constructed buildings, poor drainage system and poorly constructed roads. Construction Firms must plan their projects in advance to improve the performance of project outcome. Project planning is therefore critical in any project. Constructions activities in Nairobi City County are carried out mainly by organizations that are usually organized into firms, which are outfits that deal with day to day running in the construction projects. Therefore, this study sought to examine the effects of project planning practices on performance of construction projects in Nairobi City County, Kenya. The specific objectives are; to determine the effects of human resource planning practices, financial resource planning practices, material usage planning practices and time management on performance of construction projects in Nairobi City County, Kenya. The target population was one hundred and twenty-five construction projects within Nairobi City County. One hundred and twenty-five respondents were targeted who are the project managers. These were the key resource persons in the best position to answer on issues of project performance. Since the population was of manageable size, census was adopted in this research. Collection of primary data was done by use of semi-structured questionnaire. The data was coded and entered for analysis using Statistical Package for the Social Sciences (SPSS). Pearson correlation analysis was used to relate the various study variables. The results of the study were presented using tables and figures. The study findings indicated that majority of the firm accord human resource management function as an important role and that majority of the firms conduct training to its project team members. The results indicated that project completion was being done without much struggle and that the budgeted funds were enough to complete the project. The study further established that all material resources allocated were in use and that project output had been well defined. The study also found that quality projects planning was being carried out effectively. It was also clear that that activity duration had been well estimated, time schedules were well developed, and that project scope had been well specified during planning phase. The study concluded that human resource planning, time management, material resource planning and financial resource planning positively and significantly contributes to performance of the construction projects. The study concluded that construction firms should conduct proper and continuous training programs aimed at developing human resources in the industry. The study suggested that the cost estimation ought to be founded on the project scope and be associated to the project plan. The study recommended the creation of time plans in accordance with previously created work-breakdown structure.
CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Projects make up approximately 50% of all work conducted and consequently deemed as the vehicle for the organizational growth execution (Raz & Shenhar, 2003). Fretty (2005) noted that the project management is the project accomplishment through application and integration of initiation, planning, execution, controlling, monitoring and closing.

Andrew, Joana, Peter and Alan (2013) reported that a project could be regarded as a scheme, that is vigorous and keeps on changing from one stage to another within a life cycle. Regarding a generic project, its status changes from that of a concept or an idea through to studies of feasibility, execution and lastly completion. In addition, projects are recently far more complicated than ever before. Large capital investment is involved as well as several disciplines embraced, tighter schedules, project participants who are widely dispersed, and quality standard, which are stringent. This combined with fast improvement in ICT; these components have incredibly affected project performance in taking focal points of recently created management tools and the most recent innovation. The project management creative concept is all-inclusive and non-specific.

Project managers, who wish to make improvement on existing project performance or intend to present the project management discipline, need to take cognisance of social, auxiliary, useful and individual components. Thompson et al., (2007) noted that strategy of a company is the action plan of management for running the business as well as conducting operations.
The planning of a project plan represents a managerial promise to seek after activities’ arrangement in the development of the business, pulling in and client satisfaction, contending efficiently, leading tasks and improving financial and market performance of the company. Therefore, some of the construction company’s project plan entails growing the business, building a loyal clientele and outcompeting the rivals. In choosing a project plan, management should effect all the business approaches and ways of competing hence the management should make use of this competitive and operating approaches combination in moving the organization the expected way, reinforcing its market position and aggressiveness and boosting execution. The project planning choices a company makes are not often easy decisions and some of them might turn out to be wrong but that is not an excuse for not deciding on a concrete course of action (Al Khattab, 2012).

Efficient and operational project management requires whole contributions of competed human resources well equipped with requisite skills, knowledge and approaches to work. Success or subsequent failure of a project or related businesses requires thorough resource planning processes for the whole project to succeed (Besner, & Hobbs, 2011). Researchers assert that project management has at its core the objective of meeting and surpassing the expectations of the project sponsors. The triple constraint is the most vital part of project management because for a project to be successful, they need to be within the cost, time, and scope. According to Haughey (2011), the project manager will need to weigh one constraint against another and determine which one will return the best result to the project. Cost: The project generates desired result/outcome for the anticipated cost. Quality: project generates
desired result/outcome with minimum defects. Schedule: The project generates the desired result/outcome within the estimated period.

Kress (2014), noted that all projects should endeavor to satisfy the three aspects of a project. However, external forces at play force the project to go off course. It is therefore necessary to perform proper planning since projects are capital intensive and carry along many risks and uncertainties with them (Telsang, 2014).

A properly planned project typically has control mechanism that are inbuilt to make sure that all necessary procedures are followed to enhance the success of the project based on the set plan. Shenhar, (2008) noted that the control mechanisms guarantee that actions anticipated to execute established plan to action are well matched with objectives set, and able of realizing the plan. It is not always easy for a project manager to identify deviations in budget or that there are time and cost overruns. It is through the project control mechanism that these are noted.

Project performance is majorly based on project planning (Whittaker, 1999). Identification of the key problem areas during the planning process and taking corrective action is important to enhance performance. The past one decade has seen the Kenyan economy has enjoyed a high economic growth rate. For her to maintain the steady growth, the country seeks to provide more social amenities like roads, electricity, telecommunication networks, sanitation facilities, and large-scale investment aimed at enlarging its infrastructure. These various projects have a chief role to play in the country’s economic development and construction firms in the country have performed majority of this works.
Kenya has made heavy investments in infrastructure with a view to get better people’s socio-economic conditions (Telsang, 2005). The government aims at efficient management and deriving good returns on the investment for future development. However, performance of projects in most developing economies is relatively low notwithstanding their contribution to these countries. It has been argued that many projects within developing nations fail to meet the three core aspects of successful project hence they do not meet the intended purpose (Idoko, 2008).

1.1.1 Project Performance

The performance of a project is largely determined by personal capabilities as well as skills of the available potential leaders rather than mere understanding of the projects’ constraints (Jiang, 2009). Berg and Karlsen, (2007) noted that managers of the project have traditionally stressed technical skills and knowledge as the key ingredients in the management of projects. The need for effective project management has called for a better project management approaches that consider human capital and leadership skill as necessary tools in project management (Sumner, 2006).

Project performance and success in terms of effectiveness measures revealed five major component factors: Customer Satisfaction, Learning and Exploitation, Stakeholder Objectives, User Satisfaction and Operational Assurance (Takim, Roshana & Hamimah, Adnan 2009). Given that effectiveness project success measures are associated with the project ‘results’, factors for instance meeting the users and client’ satisfaction, learning from projects, meeting pre-stated project stakeholders’ objectives (accomplishing project
objectives as well as core business) and supported by a well-organized commissioning programmes are the expected outcomes of the project. The indicators of proper project performance include; aligning project outcomes with customer needs expectations and specifications (Lauri & Gregory, 2002).

According to Lisa (2013) other measures of project performance includes; project completed according to desired specifications, completion of project using the specified budget and completion of project within the promised schedule of time. Hamilton and Gibson (1996) have also argued that the cost and schedule saving is a good measure of project performance while meeting the expectations of stakeholders. The project performance relies heavily upon on key indicators such as time taken to complete, meeting the standards set by varies authorities such as the government and county authorities (Kagalwala & Ram, 2003). The current study used quality management, cost management and completion time as the measures of project performance.

1.1.2 Project Planning Practices

Project planning is the process in which schedules, workforce, milestones, equipment, as well as budget estimates are specified otherwise estimating the time, cost, effort and employees’ resources required in the execution of the project (Chatzoglou & Macaulay 2009; Slevin & Pinto, 2006). It is the project resources systematic arrangement in the best way to attain objective of the project (Faniran et al., 2000; Hore et al., 2007). It can also be described as one of the essential tools that stakeholders utilize to make sure that projects are successful (Naoum et al. 2004)
It also refers to the process of defining suitable approaches for the accomplishment of predefined project objectives (Faniran, Oluwoye and Lenard, 2008). It can as well be described as the process in which project objectives are defined, project framework determined, while methods, tactics, targets strategies, and deadlines are set to attain the set objectives while communicating the same to the relevant stakeholders.

Projects normally have a diversity of objectives, involve many external and internal players, and cut across different activity sectors. Since 1980, lots of practitioners as well as academics have approved that human resource management (HRM) planning practices, time management practices, material usage planning practices and financial planning practices are the most vital elements of the success of an organization (Dvir, Raz & Shenhar, 2003). Nowadays, Human Resource Management Practices (HRMP) is being renewed within organizations and steadily affirming its strategic role. HRMP are one area, which influences intention of employees to leave, job satisfaction levels and organizational commitment hence affecting the performance of a project (Huang, 2009). A project’s human resource management practices contribute to increased performance and therefore help it to grow as well as gain sustainable competitive advantage.

Project time planning practices includes all planning procedures necessary for timely project completion. According to PMBOK (2004) the planning processes in time knowledge area are activity definition, activity sequencing, schedule development, activity duration estimating and resource estimating of the activity. One of the most important plans in the project is the time plan. Previously developed work-breakdown structure (WBS) guide the
development of time schedules. According to Antvik & Sjöholm (2007) activities must be sequenced accurately to develop realistic as well as achievable schedules.

The process of activity resource estimation encompasses determination of what resources are needed as well as the quantity of each resource that will be used in the project. Needed resources may be material, equipment and personnel hence material planning practices. The process as well includes determination of when each resource will be available to the project especially the material used in the project (PMBOK, 2004). Generally, there are two resource estimation methods; bottom-up and top-down. In instances of constrained information, the top-down strategy is frequently utilized. The projects’ higher management conducts it and it is founded on experience from projects, which are similar. The bottom-up method, which involves each definite work classification in the process, is also called qualitative based estimations.

The financial planning phase of a project entails cost budgeting and cost estimation. Cost planning aims at completing the project within the approved budget. (PMBOK, 2004). Budgets in projects are very important as they influence all areas in both planning and execution. All costs are very critical and should be kept in track while recording the costs for the various work packages within a project as well (Guoli, 2010). When a budget for a project is professional developed, project costs are controlled it aids in development of a sound and well-functioning cash flow. According to Antvik & Sjöholm (2010) insufficient cash flow due to poor budgeting results to delays in completing and large extra costs and consequently there is a high risk for a temporary
stop of the entire project. The estimation of cost ought to be centered on the scope of
the project, the WBS and be linked to the plan of the project. Adisa Olawale & Sun
(2010) reported that due to the presence of several factors of uncertainty in a project, a
reserve cost could be assigned to activities with a low work packages level or detailed
information with possible high financial risks.

Project developments must include consideration of goal measurement methods and financial
planning practices. Some processes of planning include this step; other planning processes
leave this question to be attended to by a separate process. According to Olsen S. & Pulawska
G. (2013) addressing goal measurement involves articulation of indicators, benchmarks as
well as objectives. Most of the JIT cost advantages took place when large inflation increases
brought about large increases in the carrying inventory cost (Plenert, 1993; Plenert & Best,
2006). Nevertheless, looking at MRP's basic philosophy, we ought to be capable of focusing
our scheduling only on the needed materials, and when they are needed (Ritzman, 2004).

1.1.3 Construction Projects in Nairobi City County

Kenya economic survey 2017 indicates that Kenyan construction market will record
significant expansion over the next ten years with an annual growth of 6.2 percent,
positioning Kenya as the leading country as compared to other countries within the Sub-
Saharan region. According to the survey, huge spending of the government on infrastructure
development for instance Lamu Port South Sudan Ethiopia Transport (LAPPSET) corridor
and standard gauge railway are the key drivers of economic growth. Kenya construction
industry is rapidly growing and has seen a boom in the past couple of years. As per
information from Kenya National Bureau of Statistics (KNBS) (2016), the construction industry grew by 9.2 percent in 2016 from growth of 13.9 percent registered in 2015. The same statistics demonstrated an expansion in action in the development of housing and construction of roads meaning an increase in employment within the sector to 163.0 thousand jobs in 2016 from 148.6 thousand jobs in 2015.

Constructions activities in Nairobi City County are carried out mainly by organizations that are usually organized into firms which are outfits that deal with day to day running in the construction projects. The projects to be considered in this study are infrastructure projects and service delivery projects. Nairobi county embarked on the implementation of several infrastructure and service delivery projects in the year 2013 and some the projects that never took off, that is, the Eastland’s Urban Renewal project which was a proposal to construct new housing units built within the open spaces in the estates of old and new Pangani, Jevanjee Bachelors, Ngara, Woodley and Uhuru (Mong’are, 2016).

The Kenya National Bureau of Statistics (KNBS) did an estimation of the Kenyan population to grow at 4.2 percent and this growth is expected by 2020 to reach fifty million. Based on the above estimates there is a yearly demand of housing units of approximately 206,000 units and the supply current stands at 50,000 housing units annually which creates a shortfall of 156,000 housing units yearly since 2013 to 2017 (KNBS, 2017). Despite the growth of incomplete projects from 22% in 2013 to 27% in 2017, the Kenyan government seeks to march the houses supply to the existing demand by 2030 (RoK, 2015). Ministry of Housing, Land and Urban Development (2016) noted that 48 percent of construction projects within
Nairobi City County are still incomplete and 10 percent of these projects have stalled completely.

Other important projects in the county are the drilling of boreholes, construction of storm-water drainage systems, construction of elevated water tanks, road projects, security projects and street lighting. Some of the projects funded by the World Bank under the NAMSIP have not been started/completed in time for example physical address system projects, a GIS mass valuation system, and the redevelopment of a different city estates.

1.2 Statement of the Problem

While most of the project managers utilize most of their time figuring out how to meet the objectives of the projects they are carrying out, most of these projects within Nairobi City County are not completed within the stipulated time. The main challenges experienced in this delay being human capital and financial resources (Kennedy, 2016). Majority of the project managers concentrate their financial and time resources in handling the immediate problems thus unable to anticipate and prepare for the next challenges.

A study by Pearce and Robinson (2013) on influence of project planning on projects performance found that there is a positive correlation between project planning and project performance and that the study recommended that firms should plan for projects resources to ensure that they get an edge over competitors’ as well enabling survival in the end. Time spend on planning helps increase chances of success for the project while lessening risks associated with the project (Wang & Gibson, 2012). Other researchers on the effects of project planning practices on project performance such as Morris P.W.G (2010), Terry
Cooke- Davies (2014), Lianying Zhang, Weijie Fan (2013), found that scanty planning and analysis leads to a failed project while good planning increases the chances of success of the project.

However, there is scanty of empirical studies on the effects of project planning practices on project performance in Kenya. For the last five years, several plans on how the city’s infrastructure projects and most important how the road can be decongested have been mooted and laws created, but less than 10 projects have been actualized. Competing interests, duplication of roles, endless planning and grandstanding by stakeholders are standing in the way of an efficient traffic flow, working public transport system in Nairobi and poorly constructed infrastructures. This study sought to bridge this gap by determining effects of project planning practices on construction projects performance in Nairobi City County, Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective was to examine the effects of project planning practices on performance of construction projects in Nairobi City County, Kenya.
1.3.2 Specific Objectives

The specific objectives of the study were:

i. To determine the effects of human resource planning on performance of construction projects in Nairobi City County, Kenya.

ii. To analyze the effects of financial resource planning on performance of construction projects in Nairobi City County, Kenya.

iii. To identify the effects of material usage planning on performance of construction projects in Nairobi City County, Kenya.

iv. To establish the effects of time management on performance of construction projects in Nairobi City County, Kenya.

1.4 Research Questions

The study was guided by the following research questions:

i. What are the effects of human resource planning on performance of construction projects in Nairobi City County, Kenya?

ii. How does financial resource planning affect performance of construction projects in Nairobi City County, Kenya?

iii. What are the effects of material usage planning on performance of construction projects in Nairobi City County, Kenya?

iv. What are the effects of time management on performance of construction projects in Nairobi City County, Kenya?
1.5 Significance of the Study

The study was of benefit to construction firms. The construction firms were able to establish the effects of project planning practices on performance of project and learn to utilize some of the benefiting planning practices such as financial planning practices, human resource planning practices and time planning practices. This study was of great assistance to the project managers in various counties in developing the right direction on improved projects performance in all the counties. Other researchers can utilize the study’s findings for reference. It helped them as a source of secondary data when doing research on interrelated fields in different areas of interest. The research study assisted other scholars get insight in the project management field. There were only few studies in the area and therefore the findings of this study gave a good starting point to the scholars to conduct more research in project management. The findings and recommendations was useful in both policy and practice in public and governmental organization undertaking projects. Application of concepts outlined in this study ensured project success.

1.6 Scope of the Study

The study was conducted to analyse the effects of project planning on performance of construction projects in Nairobi City County, Kenya. The study analysed human resource planning, time planning, material planning and financial planning, and their effects on performance of construction projects in Nairobi City County, Kenya. Evaluation was done on performance of construction projects started in the year 2013; those which had stalled, were ongoing and projects that had never taken off. The projects considered were road
projects, housing projects and water and drainage projects since these were the major mega projects done in the county from 2013 to 2017.

1.7 Limitations of the Study

The study faced the following limitations; some participants viewed the information sought as confidential and were hesitant in providing information fearing that competitors might use the information for their own gains. However, the researcher used introductory and authorization letter from the university to assure the participants that the information provided would be used for education purposes only. There were delays in data collection where the respondents were too busy to fill in the research questionnaire. The researcher however, persuaded the respondents by explaining the importance of the research study.

1.8. Organization of the study

The structure of this study is as follows: Chapter one outlines the research background, research objectives, study’s significance, scope of the study, and the limitations that were encountered in the study. Chapter two presents literature on project performance and empirical findings on the effect of project planning on the project performance and a conceptual framework. Chapter three outlines the methodology employed in the study, which includes; the research design, sampling technique, target population, tools and techniques of data collection, analysis and presentation of data. Chapter four discusses interpretation and presentation of the findings. Chapter five presents summary of data findings, conclusion, recommendation and areas of further research.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section discussed literature on project performance and empirical findings on the effect of project planning on the project performance. It presented literature on relevant project theories and their application to construction firms. The discussions sought to identify, evaluate and present relevant information from textbooks, journals and findings from other scholars as well as experts. These logical summaries tried to capture the minds of others in relation to the variables to be investigated.

2.2 Theoretical Review

2.2.1 Agency Theory

Jensen and Meckling developed the Agency theory in 1976. The authors identified two types of agency conflicts. The first focuses on the conflict between shareholders and managers and the second on the conflicts between equity-holders and debt holders. Conflicts between shareholders and managers arise because managers do not hold total claims thus they cannot capture the entire gain from their value maximizing activities. The second type of conflict arises between debt holders and equity holders because debt holders give equity holders an incentive to invest sub optimally (Mandell, 2008). According to the theory, project managers of asset left on their own are expected to act on the best interest of those who have appointed or elected them. This implies that the entire project ought to be carried out in a manner to benefit owners (Lan, 2010).
In agency theory terms, the project beneficiaries are principals and project managers are the agents. Therefore, the agents, since they hold power on behalf of the principal, are expected to exercise control for the benefit of the principal by ensuring sufficient returns. According to (Bonazzi, 2007). Agency theory specifies mechanisms that reduce loss and increasing benefits (wealth creation) to the principal thus, managers should always act to the best interest of the beneficiaries. This theory is significant in managing projects and it indeed emphasizes on the need of taking the interest of the stakeholder in all management decision of the projects. Agency theory is applicable to the study in that it supports the works of project managers in ensuring that resources such as time, finance, human and materials are utilized to the best interest of the citizens/beneficiaries.

2.2.2 Theory of Change

Theory of Change rose during the 1990s at the Aspen Institute Roundtable on Community Change to model and assess exhaustive network activities. Notable methodologists, for example, Michael Quinn Patton, Huey Chen, Heléne Clark, Carol Weiss and Peter Rossi, had been considering the application of program theories to assessment since 1980. The Roundtable’s initial work centered around working through the difficulties of assessing complex network activities.

This theory gives a definition of all phases involved to result in a given long-term goal (Harris 2005). Such sets of associated phases–interchangeably known to as results, products, events or requirements is depicted on a map referred as a change framework/pathway of change which is a realistic portrayal of the change process (Akpan & Chizea, 2002).
Theory of Change is a comprehensive illustration as well as description of how and why a change that is desired is anticipated to take place in a context (Andersen, 1996). It’s focused on bridging the gap in the so commonly referred to as the “missing middle” between what a change or program initiative does (its interventions or activities) and how these bring about preferred goals being attained (Chizea, 2002). This theory is applicable to the study in that it supports construction firms to first identify the preferred long-term project/goals performance and then work back from these to make out all the conditions (outcomes) that ought to be in place (and how these casually related to one another) for the goals to take place (Mintzberg & Waters 1996). This may involve ensuring material, time, financial and human resources are used effectively and efficiently.

2.2.3 Stewardship Theory

Stewardship Theory created by Donaldson and Davis (1991 and 1993) is another way of understanding to current relationships between ownership and management of the company. Managers are corporations’ good stewards and work diligently to attain high corporate profit levels and returns of their shareholders (Donaldson and Davis, 1994).

This theory concentrates on the Boards’ role in giving strategies or advice and looks at managers as trustworthy individuals. The stewardship theory basics are based on social psychology, which focuses on the behavior of executives. Inherent in the role of directors having a fiduciary duty towards the stakeholders, so that they may be trusted and will act as stewards over the resources. Supporters of the stewardship theory agree that managers are more concerned with superior performance as they strive to maximize shareholders profits. The explanation behind this is that managers understand the business better and make
superior decisions as they run it on an everyday basis as compared to the directors who are more of outsiders (Donaldson and Davis, 1994).

It has been noted that where the wealth of a shareholder is maximized, the utilities of stewards are maximized as well, since organizational success will serve the majority requirements and the stewards will have a mission that is clear (Smallman, 2004). Therefore, stewardship theory refers to an argument proposed in performance of firms that satisfies the interested parties’ requirements resulting in dynamic performance equilibrium for governance that is balanced. According to Donaldson & Davis, (1994) stewardship theorists have argued that senior executives within an organization will not disadvantage shareholders for fear of endangering their reputation. This theories implication is that the managers and employees of construction firms ought to have an important proportion of guidance to guarantee more efficient as well as effective decision making.

Stewardship theory supports our first independent variable that is the human resource planning must be done well to see a positive relationship between the firms’ success and the managers. The stewards maximize as well as protect wealth of shareholders through firm performance. According to Davis, Schoorman & Donaldson (1997) a steward who successfully makes improvement performance satisfies the majority stakeholder groups within an organization, when these groups have interests that are served well by increasing wealth of the organization.
2.3 Empirical Literature

2.2.1 Human Resource Planning and Project Performance

The relationships between practices of human resource have been studied; quit rates of employee, and project performance within the service sector (Batt, 2002). The study was a descriptive study. The findings confirmed that firms’ puts emphasize on high skills, participation of employee in decision making and in teams and incentives of human resource for instance employment security and high relative pay, have higher performance and lower quit rates, sales growth. The study targeted only the service sector where the main assets are human being and may not be applicable to other sectors.

Belout and Gauvreau (2004) studied the determinants of labor productivity in project performance. Descriptive analysis was used and the study targeted employees of various projects. The study found a positive association between planning of HR and project performance. The study recommended that organizations should put in place worker involvement program, which will enable workers with opportunities to reflect their own work experiences and attitudes, and their own hopes for the future. The study concentrated only on the human inputs but non-human inputs in a project such as finance and material planning were not factored in this study.

The impact of other practices of HR (selection, training, technical expertise, leadership and management style) and project performance participation of 190 US Petro-chemical refineries have been studied (Wright et al, 2009). The findings from this study confirmed that there is a direct relationship between selection, training, leadership and management
styles with motivation of employees. Nevertheless, the researchers reported that only under highly participative systems, practices of HR (selection, training, leadership and management styles are positively interrelated to project performance of a firm.

Huang (2009) studied the influence of human resource management practices on employees’ performance (job satisfaction levels, intention to leave, and organizational commitment). The study targeted employees in construction industry. The study found that a company’s human resource management practices contribute to increased performance and therefore help it to grow as well as gain sustainable competitive advantage. These researches bade to explain the relationship between human resource management practices and financial performance and sustenance of a competitive advantage in a dynamic environment but did consider the project performance aspects.

Armstrong and Murlis (2014) studied the effects of human resource planning practices on organization performance. This research utilized a descriptive research design and the findings were analyzed through descriptive, correlation and inferential analysis. The study found that strategies of reward are a significant part of HRM of an organization and ought to be bundled with other HR practices in order that they complement as well as reinforce one another for the purpose. However, the findings disagreed with Bratton and Gold (2007) study on human resource planning practices on organization performance. The findings were that motivation through a good reward system might bring about an increase in productivity of employees.
Werner and De Simone, (2016) studied the influence of human resource planning on organizational performance. The study targeted the human resource managers and inferential research design was used. The study found that planning of human resource helps companies in the prediction of how changes in their strategy will affect the needs of their HR. The study recommended that planning the labor force needs of any organization is very important as well as critical particularly in the rapid changes in demands of external market. The study concentrated on the human resource needs and how they affect organization performance, but it failed to address the issue on human resource planning.

2.3.2 Financial Resource Planning and Project Performance

Guoli (2010) studied budget-planning effects on project performance. The descriptive research design was used, and the study targeted the stalled projects. The study deduced that a professional developed budget controls the project costs and creates favorable cash-flow conditions in the project. The study also found that insufficient cash flow consequence in a project is frequently associated with delays and large extra costs, since there is big threat for a temporary discontinuation of the entire project. The study did not investigate fully the contribution of budget planning on project performance.

Karlsson (2011) studied effects of financial planning on project performance. Descriptive survey design was used and the study targeted projects in Sweden. The study found that education, culture and financial status are the background factors affecting methods and approaches in the management of project. However, many middle level managers lack authority assigned. This is because managers have
responsibility of a certain area within which they can make decisions over and this is a problem since it was not considered in this study. Many of the construction companies are more flat and power is extensively given to middle management. This is as well connected to the higher level of authority in the organization and may affect how finances are utilized.

Antvik and Sjöholm (2013) studied the impact of cost in project performance. The study was a census. The study found that estimation of cost ought to be grounded on the scope of the project, the WBS and be linked to the plan of the project. The study also found that for the project to reach a correct estimation, the cost of individual activities must be estimated based on the specific activity conditions. Due to the various factors of uncertainty in a project, it is wise to reserve some cost dedicated to activities with high risk and a low level of detailed information.

PMBOK (2014) investigated the influence of cost planning on project performance. This study utilized a descriptive research design. The respondents of the study were project managers. The study found that project cost planning practices, which includes the cost budgeting as well as cost estimating process, affects project performance. According to the study, cost-planning practices are essential to complete a given project within the agreed budget. The project’s budget is crucial, and it has an influence in all areas in both projects planning as well as implementation. The study recommended that it is crucial to keep track of expenses for various work packages and total costs in a
project. However, the study failed to show the relationship strength between project performance and cost planning.

2.3.3 Material Usage Planning and Project Performance

Plenert and Best (2012) studied the influence of material level on project performance. The study was a survey of construction companies. Descriptive analysis was utilized, and the study found that most of the JIT cost benefits took place when inflation increases bringing about great increases in the cost of carrying inventory. The study recommended that firms must be capable of only focusing our planning on materials needed, and when they are needed. The study failed to indicate clearly the relationship between material usage and project performance.

Kress (2014) studied the effects of material planning on project performance through a survey design of selected constructions firms. The study targeted construction projects not completed in time in London. The study found that the project management primary objective is to meet otherwise surpass the material usage sponsors anticipation of the project. According to the study these anticipations are usually expressed within 3 groupings; a given project generates preferred result with minimum defects. Cost: A given project generates preferred result for the expected cost Schedule: A given project generates the preferred result within the expected period. However, the study did not consider many forces intervening and attempting to push projects off target.

Telsang (2014) studied project planning process and its effect on performance of the project. Descriptive research design was used. This study targeted projects in India. The study found
that planning gives a definition of the actions as well as activities, targets of cost and time, and milestones of performance, which will bring about successful project implementation as well as project objectives achievement. The study also found that the plan must make an indication of the human resources, equipment, materials, facilities, as well as other resources that are essential to ensure project completion. Devoting resources and making timely planning does not always guarantee that a desired goal will be achieved. It hardly works that way since the unanticipated more often take place regardless of how scrupulous the process of planning may have been.

2.3.4 Time Management and Project Performance

Akpan and Chizea (2012) studied the determinants of time planning systems in the construction firms. A case study of failed projects in Nigeria were selected. The study found that time planning system necessitates the sensible evaluation of actual implementation with standards that are pre-established and if implementation is different from the conventional objectives/goals then the corrective action is enforced immediately. Conversely, execution of a project refers to the actualizing a project plan and at the same time, tracking the plans effectiveness in the achievement of the set goals and this can be defined as project control in action. The study did not establish the effects of time planning on project performance.

Lloyd (2013) studied time planning functions effects on performance of the project. The study was a survey of construction projects. The study targeted projects not completed in time and the respondents were project managers and sponsors. The study found that function is defined as the prior planning of the project at any time based on present certainties as well
as revised prospects. The study also found that this is reasonable since the constraints as well as even objectives of the project can change during the process of implementation. It is not easy and sometimes not possible at all to detect deviance from plans. It could be on this preface assert that; planning ought to be thorough to make control achievable, since it loses promptly its worth if nonconformity from it can’t be revealed as well as amended promptly. Telsang (2014) studied the effects of project plans on project performance. Descriptive research design was used. The respondents of the study were the owners of the selected construction companies in New Delhi, India. The study found that alternative components of project plans on time, and mitigation or preventing their negative effects prior to their occurrence in implementation stage of a project can be an improvement on the mechanism of control system. The study as well found that monitoring is very important in a project therefore the chief aim of monitoring is to make sure that various targets of time as well as cost are convened, and the network and its plans of operation formulated for projects implementation are followed. It might be too late to evade overruns of cost and time related to corrective action. The study failed to establish the level of correlation between the time plan and project performance.
### 2.4 Summary of Empirical Literature and Research Gap

#### Table 2.1 Summary of Empirical Literature and Research Gap

<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Methodology</th>
<th>Findings/Recommendations</th>
<th>Gap to be Filled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telsang (2014)</td>
<td>Studied the effects of project plans on project performance</td>
<td>Descriptive research design</td>
<td>Monitoring is very important in a project therefore the chief aim of monitoring is to make sure that various targets of time as well as cost are convened. Both descriptive and inferential analysis was used</td>
<td></td>
</tr>
<tr>
<td>Akpan and Chizea (2012)</td>
<td>Studied the determinants of time planning systems in the construction firms</td>
<td>Descriptive research design approach</td>
<td>Time planning system necessitates the sensible evaluation of actual implementation with standards that are pre-established</td>
<td>The study was done in Nigeria while the current study findings were based in Kenya.</td>
</tr>
<tr>
<td>Kress (2014)</td>
<td>Studied the effects of material planning on project performance in London</td>
<td>Survey research design</td>
<td>The results of the analysis showed a positive correlation of all the study variables</td>
<td>The study filled the geographical gap identified</td>
</tr>
<tr>
<td>Plenert and Best (2012)</td>
<td>Studied the influence of material level on project performance.</td>
<td>The study was a survey of construction companies</td>
<td>The study recommended that firms must be capable of only focusing our planning on materials needed, and when they are needed. The study failed to indicate clearly the relationship between material usage and project performance.</td>
<td>The study failed to indicate clearly the relationship between material usage and project performance.</td>
</tr>
<tr>
<td>PMBOK (2014)</td>
<td>Influence of cost planning on project performance.</td>
<td>This study utilized a descriptive research design</td>
<td>There was a negative relationship between cost and project performance. The study failed to show the relationship strength between project performance and cost planning.</td>
<td>The study failed to show the relationship strength between project performance and cost planning.</td>
</tr>
<tr>
<td>Antvik and Sjöholm (2013)</td>
<td>Impact of cost in project performance.</td>
<td>A census type of sampling was used</td>
<td>The study also found that for the project to reach a correct estimation, the cost of individual activities must be estimated based on the specific activity conditions. The study failed to show the relationship strength between project performance and cost planning.</td>
<td>The study failed to show the relationship strength between project performance and cost planning.</td>
</tr>
<tr>
<td>Guoli (2010)</td>
<td>Studied budget-planning effects on project performance. The descriptive research design was used</td>
<td>Logistic regression and discriminant</td>
<td>The study deduced that a professional developed budget controls the project costs and creates favorable cash-flow conditions in the project. The study did not investigate fully the contribution of budget planning on project performance.</td>
<td>The study did not investigate fully the contribution of budget planning on project performance.</td>
</tr>
</tbody>
</table>

2.5 Conceptual Framework

The conceptual framework shows how the different variables are related to each other. Human resource planning, financial planning, time planning, and material planning are the independent while dependent variable is the project performance.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human Resource Planning</strong></td>
<td></td>
</tr>
<tr>
<td>- Number of Personnel</td>
<td></td>
</tr>
<tr>
<td>- Type of Training Programs</td>
<td></td>
</tr>
<tr>
<td>- Cost on Human Resource utilization</td>
<td></td>
</tr>
<tr>
<td><strong>Financial Resource Planning</strong></td>
<td></td>
</tr>
<tr>
<td>- Availability of Financial Plans</td>
<td>Project Performance</td>
</tr>
<tr>
<td>- Approved Budgets</td>
<td>- Quality Management</td>
</tr>
<tr>
<td>- Forecasted expenses</td>
<td>- Cost Management</td>
</tr>
<tr>
<td><strong>Material Usage Planning</strong></td>
<td>- Completion Time</td>
</tr>
<tr>
<td>- Order placement</td>
<td></td>
</tr>
<tr>
<td>- Right Material</td>
<td></td>
</tr>
<tr>
<td>- Project Scope</td>
<td></td>
</tr>
<tr>
<td><strong>Time management</strong></td>
<td></td>
</tr>
<tr>
<td>- Time targets</td>
<td></td>
</tr>
<tr>
<td>- Project Implementation stage</td>
<td></td>
</tr>
<tr>
<td>- Time Planning System</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2.1: Conceptual Framework

Source: Researcher (2018)
CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction
This chapter gives a description of the research methodology that was assumed in undertaking this study. It highlights the procedures as well as techniques that were utilized in the collection, processing and analysis of data. It therefore outlines the research design, population of study, sample size and procedure of sampling, data collection instruments, procedures and analysis techniques that the study was used.

3.2 Research Design
Descriptive research design and explanatory research design were adopted in this study. According to Mugenda and Mugenda (2014) descriptive survey demonstrates relationships by assessing samples at one point without trying to make causal statements or inferences. The descriptive survey shows an in-depth investigation on the significance of project planning practices on performance of the project.

3.3 Target population
The study’s target population was projects that never took off, stalled and on-going road projects, housing projects and water and drainage projects started in the year 2013 to 2017 in Nairobi City County, Kenya. The total number of the road projects targeted is fifty-one, the total number of the housing projects is forty-three and the total number of water and drainage projects is thirty-one making one hundred and twenty five projects (KNBS, 2017). The respondents were the one hundred and twenty five project managers.
Table 3.1: Target Population

<table>
<thead>
<tr>
<th>Projects</th>
<th>Project Managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing Projects</td>
<td>43</td>
</tr>
<tr>
<td>Road Projects</td>
<td>51</td>
</tr>
<tr>
<td>Water and Drainage Projects</td>
<td>31</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>125</strong></td>
</tr>
</tbody>
</table>

**Source:** Nairobi City County Secretary’s Office (2018)

3.4 Sampling Design

Sampling is described as the process of selecting the target population units that are to be included in a given study in such a way that the selected elements sample represents the whole population (Geteria, 2012). Since the population is of manageable size, a census of all the one-hundred and twenty-five projects was conducted.

3.5 Data Collection Instruments

Semi-structured questionnaires having closed, and open-ended questions were utilized in the collection of primary data to accomplish the research objectives. Questionnaires were preferred as it was relatively quick to collect data in a standardized and more objective way certainly more so than interviews (Saunders, Lewis & Thornhill, 2012). The administration of the questionnaires was done through drop and pick later method to the population.
3.6 Validity of Research Instruments

Validity is described as the degree to which obtained findings from the analysis of data essentially represent the phenomenon under study (Mugenda & Mugenda, 2005). To assess the content validity, the researcher consulted experts who included the supervisor to offer suggestions on content. The researcher also involved some of the colleagues in the master class for their comments. Their recommendations were used in the improvement of the final questionnaires. Pretesting was done in five projects, which did not participate in the study to avoid bias for having interacted with the questionnaire.

3.7 Reliability of Research Instrument

Research instrument reliability is its level of internal consistency over time (Mwituria, 2012). A reliable instrument is therefore the one that produces constantly the anticipated results/outcome when used more than on one occasion in the collection of data from two samples drawn from the same population. The suitability of the instrument was checked using Cronbach’s alpha. A Score above 0.7 in the study’s threshold, which according to Hair (1998) an overall scale of above 0.7 is acceptable.

3.8 Data Analysis and Presentation

Once the questionnaires were collected, they were scrutinized to make sure they were duly completed and consistent, after which they were numbered. This was followed by checking that all items had been answered according to instructions to reduce errors and maintain the data validity. To ensure that data collected had met the underlying assumptions for the
regression analysis, the study embraced key diagnostic tests. The regression model was a key analytical tool useful in testing the current hypothesis.

Analysis of data was done by use of descriptive statistics, which included mean, frequencies and percentages. These showed the correlation between the independent variable and dependent variable and the significant P-values, and inferential analysis was used to make judgments of the probability that an observed difference between groups and studies was dependable one. The Correlation coefficients provided the degree and direction of relationships. It does the measurement of the relationship, or co-variation of two or more dependent variables. The statistical calculation of such correlation was done and expressed in terms of correlation coefficients. A multiple regression model was utilized to show the connection between the dependent and independent variables. The multiple regression model of the form; \[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \]

Where: \( Y = \) Project Performance \( \beta_0 = \) Constant \( \beta_1 \) to \( \beta_4 = \) Coefficients \( X_1 = \) HRM planning \( X_2 = \) Financial Resource Planning \( X_3 = \) Material Usage Planning \( X_4 = \) Time Planning \( \varepsilon = \) Error term. Inferential statistics was conducted to determine the relationship nature that exists between variables. Data was interpreted with the help of significance P-values; if the P-value is less than 0.05, the variables deemed significant to give an explanation on the changes in the dependent variable. The coefficient of determination \( (R^2 \text{ or } r^2) \) was used to analyze the percentage in which the independent variables determine the dependent variable. Presentation of data was done by use of tables, figures and graphs.
3.8.1 Operationalization and Measurement of Research Variables

The independent variable of the study was project planning practices. The indicators of project planning practices were human resource planning, financial resource planning, material usage planning and time management. The dependent variable was project performance. The table 3.2 presents how the study variables was operationalized and measured.

Table 3.2: Operationalization of Variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>Type</th>
<th>Operationalization</th>
<th>Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Performance</td>
<td>This was the Dependent</td>
<td>Satisfying the expectations of the stakeholders</td>
<td>- Quality Management</td>
</tr>
<tr>
<td></td>
<td>variable</td>
<td></td>
<td>- Cost Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Completion Time</td>
</tr>
<tr>
<td>Human Resource Planning</td>
<td>Independent variable</td>
<td>Level of Human resource utilization</td>
<td>- Number of personnel</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Training programs used</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Human resources expenses</td>
</tr>
<tr>
<td>Financial Resource Planning</td>
<td>Independent Variable</td>
<td>Optimal financial level</td>
<td>- Availability of financial plans</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Approved budget</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Forecasted expenses</td>
</tr>
<tr>
<td>Material Usage Planning</td>
<td>Independent Variable</td>
<td>Costs of all material used</td>
<td>- Order placement</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Right material</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Ability to follow EOQ</td>
</tr>
<tr>
<td>Time Management</td>
<td>Independent Variable</td>
<td>Projects completed at the agreed times</td>
<td>- Time targets</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Project implementation stages</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Time planning system</td>
</tr>
</tbody>
</table>

Source: Researcher (2018)
3.9 Ethical Considerations

According Lewis (2012), ethics refers to the moral principles that govern behavior of a person. The researcher was guided by the University code of ethics and obtained authority from relevant offices and authorities. This included obtaining research permit from NACOSTI and an authorization letter from Graduate School.
CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSIONS

4.1 Introduction

This chapter discusses the interpretation and presentation of the findings. The purpose of the study was to analyze effects of project planning practices on performance of construction projects in Nairobi City County, Kenya. The researcher used frequency tables and figures to present data. The finding intention was to answer the study’s research questions. Data composed was collated and reports were produced in form of tables and figures and qualitative analysis carried out in prose.

4.2 Response Rate

The study was a census conducted on 125 project managers from construction projects. However, out of 125 questionnaires circulated, 105 respondents were completed and returned, this denoted a 84% response rate. This is a dependable data response rate for analysis according to Mugenda and Mugenda (2003) who held that 50% is adequate for analysis in a generalization study, 60% is good, while 70% and above is considered excellent. The excellent response rate can be attributed to the data collection technique used by the researcher, whereby research assistance was involved in dispensing the questionnaires, waiting for respondents to complete, prompting the respondents to fill in the questionnaires through frequent phone calls and picking the questionnaires from the respondents once they were duly filled. Any explanations needed by the respondents were given. The findings are presented in table 4.1.
The findings in figure 4.1 indicated that 84% of the targeted respondents filled the questionnaire appropriately, as requested. 16% of the respondent were reluctant to fill the questionnaire. They gave reasons which included that they did not get time fill them at the required time. The response rate establishes enthusiasm of the respondents to partake in the survey that the study sought.

4.3 Demographic Characterization of the Respondents

As part of the general statistics, the research required the respondents to indicate the type of the project the company was carrying out, project ownership and the highest level of education. The analysis depended on this information of the respondents to classify the various outcomes of the study.
4.3.1 Respondents’ Level of Education

The study sought to establish the level of education that each respondent held. Table 4.1 illustrates the results.

Table 4.1: Level of Education

<table>
<thead>
<tr>
<th></th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masters holders</td>
<td>9</td>
</tr>
<tr>
<td>Degree holder</td>
<td>73</td>
</tr>
<tr>
<td>Diploma</td>
<td>18</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Research Data (2018)

The findings in table 4.1 indicates that majority (73%) of the respondents had attained degree as their highest academic qualification, 18% held undergraduate as their highest level of education, 19% of the participant were diploma holders while 9% were master’s holders. Perrett (2003) pointed that academic qualification of the employees in an organization enhances their ability to handle their tasks and to understand any working formula developed in work place. This depicts that most of the employees working at projects process had relevant knowledge that is required in projects implementation process.

4.3.2 Type of the Project

The researcher requested respondents to indicate the type of the project that they were carrying out. Table 4.2 illustrates the result of the study findings.
Table 4.2: Type of the Project

<table>
<thead>
<tr>
<th>Project</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road project</td>
<td>27</td>
<td>26</td>
</tr>
<tr>
<td>Water and drainage</td>
<td>19</td>
<td>18</td>
</tr>
<tr>
<td>Housing project</td>
<td>59</td>
<td>56</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>105</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Researcher, (2018)

The figures in table 4.2 indicated that most (56%) of the firms were doing housing projects, 26% were doing road projects while 18% were doing water and sewerage projects. This shows that there were more ongoing development housing projects as compared to road projects, water and sewerage projects in Nairobi City County. This may be attributed to the increasing number of residents within Nairobi City County as they seek employment and urbanization hence increasing demand of the housing.

4.3.3 Project Owner

The study further aimed to investigate the ownership of projects that were stalled or ongoing. Figure 4.2 shows the results of the findings. The findings in figure 4.2 presents that most (62%) of the respondents indicated that local companies owned the projects, 28% of the projects were owned by foreign companies and 10% were owned by local private or joint-stock companies.
4.4 Descriptive Analysis Results

This section presents descriptive analysis on the data gotten from the respondents in connection with independent variables and dependent variable. The section describes the data using mean and standard deviation. High mean indicated that majority of the responded strongly approved the statements presented to them while standard deviation indicated the degree of dispersion from the mean.

4.4.1 Human Resource Planning and Project Performance

The study sought to establish the effect of human resource planning on project performance in Nairobi City County. Various statements were included in the questionnaire to indicate the level of human resource planning on the projects selected. Table 4.4 summarizes
respondents’ level of agreement on aspects relating to human resource planning on performance of construction projects in Nairobi City County.

Table 4.4: Human Resource Planning and Project Performance

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human resource department is majorly involved in the company’s planning process</td>
<td>4.32</td>
<td>0.188</td>
</tr>
<tr>
<td>The formulation and implementation of human resource training are in line with overall goal</td>
<td>4.13</td>
<td>0.339</td>
</tr>
<tr>
<td>The human resource management function is accorded an important role</td>
<td>4.50</td>
<td>0.033</td>
</tr>
<tr>
<td>All resources were allocated (qualified personnel and infrastructure)</td>
<td>4.11</td>
<td>0.311</td>
</tr>
<tr>
<td>Training was done to project team members</td>
<td>4.48</td>
<td>0.007</td>
</tr>
<tr>
<td>Project managers were involved in planning stage</td>
<td>4.20</td>
<td>0.155</td>
</tr>
</tbody>
</table>

Source: Research Data, (2018)

The findings in table 4.4 indicate that most of the respondents approved that human resource management function is accorded an important role as depicted by mean score 4.50 and a low standard deviation of 0.033. It is evident that majority of the respondent agreed that training was done to project team members as shown by mean score of 4.48 and very low standard deviation of 0.007. Human resource department is majorly involved in the company’s planning process as illustrated by mean score of 4.32 and a standard deviation of 0.188; respondent further agreed the formulation and implementation of human resource training are in line with overall goal as depicted by mean score of 4.13 and a standard deviation of 0.339. The respondents corresponded that all resources were allocated (qualified personnel and infrastructure) as shown by mean score of 4.11 and a standard deviation of
0.311. It is therefore clear that human resource planning practices was being done effectively by the projects in Nairobi City County through the consideration of the important role of human resource managers, allocating enough human resources and training them well. The study concurs with Batt (2002) findings that firms’ puts emphasize more on high training on skills, participation of employee in decision making and incentives of human resource for instance employment security.

4.4.2 Financial Resource Planning and Project Performance

The researcher required the respondents to state their level of conformity on the statements in relation to how financial resource planning affects performance of construction projects in Nairobi City County. Several indicators of financial resource planning were applied, and the results were presented in table 4.4.

Table 4.3: Financial Resource Planning and Project Performance

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project cost was well estimated</td>
<td>3.16</td>
<td>1.965</td>
</tr>
<tr>
<td>The budgeted funds were enough to complete the project</td>
<td>4.34</td>
<td>0.515</td>
</tr>
<tr>
<td>Budget for the project was properly determined (combining the estimated costs of individual activities or work packages to establish an authorized cost baseline)</td>
<td>4.37</td>
<td>0.998</td>
</tr>
<tr>
<td>The project manager was able to forecast expenses</td>
<td>4.50</td>
<td>0.83</td>
</tr>
<tr>
<td>Project completion was done without struggle</td>
<td>4.58</td>
<td>0.683</td>
</tr>
</tbody>
</table>

Source: Survey Data, (2018)
The findings in the table 4.4 showed that majority of the respondents strongly agreed that project completion was done without struggle and that project manager was able to forecast expenses as depicted by mean score of 4.58 and 4.50 respectively. Further respondents agreed that budget for the project was properly regulated (combining the projected costs of specific activities or work packages to ascertain an approved expenditure baseline) and that the budgeted funds were enough to complete the project as indicated by mean score of 4.37 and 4.34 respectively. Finally, respondents were neutral that project cost was well estimated as depicted by a mean of 3.16 and a standard deviation of 1.965.

Generally, it is clear from the presented study that proper financial planning was done as indicated by proper projections of the costs and completions of project phases in time without hustle. The study agrees with Guoli (2010) which found that a professional developed budget controls and the project costs creates favorable cash-flow conditions in the project. The study also found that insufficient cash flow consequence in a project is frequently associated with delays and large extra costs, since there is a great possibility for a temporary halt of the entire project.

4.4.3 Material Usage Planning and Project Performance

The study sought to determine the effect of material usage planning on project performance in Nairobi City County, Kenya. The researcher used a combination of various indicators of material usage planning and presented to the respondents as statements as indicated in table 4.5.
The study findings as presented in table 4.5 indicated majority of the respondents agreed that appropriate material was provided as depicted by mean score 4.16 and a standard deviation of 0.799, respondent also agreed that all material resources allocated were used and that project output was well defined as shown by mean score of 4.13 and 4.11 respectively. Quality planning were carried out as illustrated by mean score of 4.07, further respondent agreed that project material and organization was well communicated during planning phase as depicted by mean score of 3.92.

It is clear from the results that material usage planning was effectively practiced as indicated quality of the material used, right materials used and the indication that all materials needed were availed to the projects. The study concurs with Plenert and Best (2012) findings that most of the JIT costs took place when inflation increases bringing about great increases in
the cost of carrying inventory. The study recommended that firms must be capable of only focusing our planning on material resources needed, and when they are required.

4.4.4 Time management and Project Performance

The study aimed to determine the effect of time planning on project performance in Nairobi City County. The results were presented in table 4.6.

Table 4.5: Time management and Project Performance

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The project scope was well specified during planning phase</td>
<td>4.55</td>
<td>0.195</td>
</tr>
<tr>
<td>Schedules were well developed (prepared)</td>
<td>4.58</td>
<td>0.126</td>
</tr>
<tr>
<td>Activity duration was well estimated</td>
<td>4.61</td>
<td>0.454</td>
</tr>
<tr>
<td>The project was completed on the original (planned) schedule</td>
<td>3.18</td>
<td>0.455</td>
</tr>
<tr>
<td>All projects were to be completed on the agreed time</td>
<td>3.01</td>
<td>0.29</td>
</tr>
</tbody>
</table>

Source: Research Data, (2018)

The results in the table 4.6 indicate that majority of the respondents agreed that activity duration was well estimated as depicted by mean score of 4.61 and a standard deviation of 0.454; schedules were well developed (prepared) as shown by mean score of 4.58 and low standard deviation of 0.126. The project scope was well specified during planning phase as illustrated by mean score of 4.55 and a standard deviation of 0.195. Further respondents were neutral that the projects were to be completed on the original (planned) schedule with a mean of and that all projects were going to be completed on the agreed time as illustrated by mean
score of 3.18 and 3.01 respectively. This is an indication that on average projects are completed at the agreed time and that the project scope and activity duration were well done.

The study agrees with Lloyd (2013) findings that time planning functions effects on performance of the project. The study indicated that planning ought to be adequately comprehensive to make management possible, since it loses promptly its convenience if deviation from it cannot be sensed as well as amended promptly. The study disagrees with Telsang (2014) findings that the devoting resources and making timely planning does not always guarantee that a desired goal will be achieved. The study found that time management hardly works that way since the unanticipated more often take place regardless of how scrupulous the process of planning may have been.

4.4.5 Projects Performance

The study sought to establish the level of projects performance in Nairobi City County. Table 4.7 summarizes respondents’ level of agreement on various statement presented to them.

**Table 4.6: Projects Performance**

<table>
<thead>
<tr>
<th>Statements</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>The output/delivered product met the specifications in the planning stage</td>
<td>4.66</td>
<td>0.167</td>
</tr>
<tr>
<td>Quality work was performed</td>
<td>4.56</td>
<td>0.240</td>
</tr>
<tr>
<td>Project cost was well estimated</td>
<td>4.33</td>
<td>0.053</td>
</tr>
</tbody>
</table>

*Source: Survey Data, (2018)*
Findings in table 4.7 illustrates that greater part of the respondents agreed that the output/delivered product met the specifications in the planning stage as depicted by mean score 4.66 and a standard deviation of 0.167. Further respondent also approved that ensuring the project delivery quality is within the expectation of the clients is key for success of a project implementation as shown by mean score of 4.56 and a standard deviation of 0.240. Further respondents approved that quality work was performed as illustrated by mean score of 4.33 and standard deviation of 0.053.

It is clear that the selected projects had indicated high degree of project planning practices and these translated to high project performance that met the client’s specifications. The findings agree with Kress (2014) findings that the project management primary objective is to meet otherwise exceed the sponsors expectations of the project. According to the study these anticipations are usually stated within 3 groupings; a given project generates preferred result with minimum defects, a given project generates preferred result for the expected cost Schedule and that a given project generates the preferred result within the expected period.

### 4.5 Inferential Analysis

This section investigates the correlation between variables, tests the possibility of multicollinearity, presents the model summary, analysis of variance and the coefficients of the independent variables.

#### 4.5.1 Correlation Analysis

The study sought to determine the correlation between the independent variables (human resource planning, financial resource planning, material usage planning and time
management) and the dependent variable (project performance). To calculate the correlation (strength) between the study variables and their findings, the Survey Data used the Karl Pearson’s coefficient of correlation ($r$). The findings were presented in Table 4.8.

**Table 4.7: Correlation Analysis**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Performance of construction projects</strong></td>
<td>Pearson Correlation</td>
<td>.523</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.0032</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Human Resource Planning</strong></td>
<td>Pearson Correlation</td>
<td>.6140</td>
<td>.3421</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.0021</td>
<td>.0014</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Financial Resource Planning</strong></td>
<td>Pearson Correlation</td>
<td>.7460</td>
<td>.1240</td>
<td>.0621</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.0043</td>
<td>.0120</td>
<td>.0043</td>
<td></td>
</tr>
<tr>
<td><strong>Material Usage Planning</strong></td>
<td>Pearson Correlation</td>
<td>.5210</td>
<td>.3420</td>
<td>.0000</td>
<td>.1660</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.0172</td>
<td>.0031</td>
<td>1.000</td>
<td>.0031</td>
</tr>
</tbody>
</table>

**Source: Survey Data, (2018)**

From the study findings in Table 4.8, performance of construction projects and human resource planning had a positive correlation as shown by a correlation figure of 0.523. It was also clear that there was a positive correlation between performance of construction projects and financial resource planning with a correlation figure of 0.614. The performance of
construction projects and material usage planning had a positive correlation with a correlation value of 0.746 while a positive correlation was also found between performance of construction projects and time management with a correlation value of 0.521.

The results proved a positive correlation between performance of construction projects and human resource planning, financial resource planning, material usage planning and time management. The study findings agree with Belout and Gauvreau (2004) findings there is a positive correlation between planning of HR, time planning, material resource planning, financial planning and project performance. Wright (2009) findings confirm and agree with the current study that there is a direct connection between selection of human resources, material planning, financial planning and time management with project performance.

4.5.2 Testing Multicollinearity

The study sought to investigate whether two or more independent variables have a high correlation with each other. The findings were presented in Table 4.9

Table 4.9: Multicollinearity Coefficients^a

<table>
<thead>
<tr>
<th>Model</th>
<th>Collinearity Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>Human Resource Planning</td>
<td></td>
<td>.878</td>
</tr>
<tr>
<td>Financial Resource Planning</td>
<td></td>
<td>.689</td>
</tr>
<tr>
<td>Material Usage Planning</td>
<td></td>
<td>.869</td>
</tr>
<tr>
<td>Time Management</td>
<td></td>
<td>.655</td>
</tr>
</tbody>
</table>

^a. Dependent variable: Project Performance

Source: Research Data (2018)
A VIF value of 5 or more and a tolerance value of less than 0.2 presents a possibility of multicollinearity. The findings in table 4.9 indicate that the tolerance values were above 0.2 and that the VIF values were below 5 indicating that there was no possibility of multicollinearity between variables thus regression analysis could be done to show the relationships between the dependent and independent variables.

4.5.3 Regression Analysis

The researcher conducted a multiple regression analysis to determine the change in the (dependent variable) performance of construction projects because of change in the four independent variables.

4.5.3.1 Model Summary

The model summary was used to present the coefficient of determination, which explained the degree to which variations in the dependent variable can be elucidated by changes in the independent variables. It can also be explained as a percentage of variation in the dependent variable (performance of construction projects) that is described by all the four independent variables (human resource planning, financial resource planning, material usage planning and time management). The results were presented in table 4.10.
Table 4.10: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.780*</td>
<td>.632</td>
<td>.556</td>
<td>.50119</td>
</tr>
</tbody>
</table>


Source: Survey Data, (2018)

The four independent variables (human resource planning, financial resource planning, material usage planning and time management) contributes to 55.6% on performance of construction projects as represented by the adjusted $R^2$. Consequently, the other factors not considered in this research contribute to 44.4% on performance of projects. The coefficient of correlation value of 0.780 indicates that there was a positive strong correlation between independent and dependent variables.

4.5.3.2 Analysis of Variance

The study sought to establish the overall significance. The results were presented in the table 4.11.

Table 4.11: Analysis of Variance

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>142.771</td>
<td>4</td>
<td>35.69</td>
<td>49.872</td>
<td>0.000</td>
</tr>
<tr>
<td>Residual</td>
<td>14.645</td>
<td>101</td>
<td>0.145</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>157.416</td>
<td>105</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research Data (2018)

The findings in the table 4.11 indicate that the overall model was significant. The overall model was significant as shown by a calculated $F$ statistic of 49.872 (p value 0.000). The
calculated F statistics was large than the critical F statistic. The findings indicated that the variables: human resource planning, financial resource planning, material usage planning and time management are good predictors of performance of construction projects.

4.5.3.3 Regression Coefficients

The study coefficients of independent variables are presented in table 4.12. The coefficients indicate the direction and change of dependent variable because of change in the independent variables.

Table 4.12: Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.308</td>
<td>1.342</td>
<td></td>
<td>1.623</td>
</tr>
<tr>
<td><strong>Human Resource Planning</strong></td>
<td>0.558</td>
<td>0.310</td>
<td>0.172</td>
<td>4.342</td>
</tr>
<tr>
<td><strong>Financial Resource Planning</strong></td>
<td>0.731</td>
<td>0.156</td>
<td>0.210</td>
<td>3.532</td>
</tr>
<tr>
<td><strong>Material Usage Planning</strong></td>
<td>0.785</td>
<td>0.322</td>
<td>0.067</td>
<td>3.542</td>
</tr>
<tr>
<td><strong>Time management</strong></td>
<td>0.620</td>
<td>0.245</td>
<td>0.148</td>
<td>3.458</td>
</tr>
</tbody>
</table>

Source: Survey Data, (2018)

As per the SPSS generated table 4.12, the equation

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \]

becomes:

\[ Y = 1.308 + 0.558X_1 + 0.785X_2 + 0.620X_3 + 0.731X_4 \]

Using the regression equation above and holding all factors constant (human resource planning, financial resource planning, material usage planning and time management)
The performance of construction projects will be 1.308. The findings in table 4.12 indicate an increase in human resource planning will significantly increase project performance. The study findings with Armstrong and Murlis (2014) on the study of the effects of human resource planning practices on organization performance. The study found that strategies of reward are a significant and positively form part of the organizational performance. However, the findings disagreed with Bratton and Gold (2007) study on human resource planning practices on organization performance. The findings were that human resource planning does not significantly determine performance but through a good reward system might bring about a proliferation in the employees’ productivity.

The results further indicate that an increase in financial resource planning will significantly lead to an increase in project performance. The study concurs with Antvik and Sjöholm (2013) study findings on the impact of financial planning on project performance. The study found that estimation of cost ought to be grounded on the scope of the project and established that financial planning significantly and positively affects project performance. The study also agrees with PMBOK (2014) study findings on the investigation of the influence of cost planning on project performance. The study found that project cost planning practices, which includes the cost budgeting as well as cost estimating process, positively affects project performance.

The findings in table 4.12 show that an increase in material usage planning will lead to an increase in project performance. The study findings agree with Plenert and Best (2012) study findings on the influence of material level on project performance. The study found that
material usage planning increases the performance of project performance by bringing about large decreases in the cost of carrying and holding inventory. The study concurs also with Kress (2014) study on the effect of material planning on project performance, which found that proper material usage improves performance of projects.

The results in table 4.12 also indicate that an increase in time management will lead to an increase in project performance. Lloyd (2013) agrees with this study that time planning ought to be sufficiently detailed to make control possible and this significantly increases the performance of the projects. Akpan and Chizea (2012) study agrees with the current study which found that time planning systems in the construction firms significantly affects performance of the projects.
CHAPTER FIVE  
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the data findings on effects of project planning practices on performance of construction projects in Nairobi City County. The chapter also highlights the conclusions and recommendations of the study based on study findings. The chapter contains the summary of findings, conclusions, recommendations and area for further research.

5.2 Summary of the Study

The study aimed to investigate the effect project planning practices on project performance in Nairobi City County, Kenya. The study was motivated by the fact that for the last five years, several plans on how the city’s infrastructure projects have been presented and less than 10 projects have been actualized. The study specific objectives were determining the effect of human resource planning, financial resource planning, material usage planning, and time management on performance of construction projects in Nairobi City County.

5.2.1 Human Resource Planning and Project Performance

From the study findings most of the firm accord human resource management function is an important role that aims to improve performance of construction projects. Most firms conduct training to its project team members. In most construction companies, human resource department is majorly involved in the company’s planning process. Additionally, the study found that devising and application of human resource training are in line with
The study found that human resource planning positively and significantly affects project performance.

5.2.2 Financial Resource Planning and Project Performance

The study inspected the effect of financial resource planning on performance of construction projects and established that project completion was being done without much struggle and that project manager was able to forecast expenses. The study also found that there was proper determination of the budget for the project (establishing the authorized cost baseline by combining the projected costs of specific activities or work packages) and that the budgeted funds were enough to complete the project. There was significant positive correlation between financial resource planning and project performance.

5.2.3 Material Resource Planning and Project Performance

The effect of material usage planning on performance of construction projects was that appropriate material had been provided. The study further established that that all material resources allocated were in use and that project output had been well defined. The study also found that quality projects planning was being carried out effectively. There was significant positive correlation between material resource planning and project performance.

5.2.4 Time Management and Project Performance

Regarding time management influence on performance of construction projects, the study revealed that that activity duration had been well estimated. Time schedules were well developed (prepared). The study also established that the project scope had been well
specified during planning phase. It was clear that most of the projects would not be completed on the original (planned) schedule. The study found that time management positively and significantly affects project performance.

5.3 Conclusion

The study aimed at finding out effect of project planning practices on performance of construction projects in Nairobi City County, Kenya. Based on the findings the study made the following conclusion.

The study concluded that most of the firms accord human resource management function is important role that aims to improve performance of construction projects. Most firms conduct training to its project team members. Additionally, the study concludes that formulation and implementation of human resource training are in line with overall goal. The study concluded that human resource planning positively and significantly contributes to performance of construction projects.

The study concludes that financial resource planning has a positive and significant effect on performance of construction projects. The study concludes that budget for the project was properly determined and that the budgeted funds were enough to complete the project.

The study concludes that projects were going to be completed at the agreed time and that the project scope and activity duration had been well estimated. The study concludes that time management has a positive and significant effect on performance of construction projects.
Material resource planning has influence on project performance. It was clear that material usage planning was effective as it was indicated in the quality of the material used, right materials used and the indication that all materials needed were availed to the projects. The study concludes that material resources planning has a positive and significant effect on performance of construction projects.

5.4 Recommendation

Based on the objectives of the study, the following recommendations were made.

Based on the conclusion that human resource planning positively affects projects performance, construction firms should equip the human resources in their industry through appropriate and constant training programs addressing the performance of construction projects. The study also recommends that there is need for construction firms to understand the prerequisites of the project team members in order to address them. Additionally, it is recommended that construction projects forecast the level of performance of a project before it is inaugurated.

Concerning financial resource planning, the study notes that project budget is a critical part of the budget and it has a major influence on both the planning and execution parts of a project. For efficient utilization of the resource, total costs and individual costs of the diverse work packages in the project should be kept track of. The project scope should be used to estimate the cost of the project with the WBS being connected to the project plan. Estimating the costs of individual activities based on execution conditions will assist to generate correct overall cost estimation. On the same the study recommends that for successful construction
project planning, materials management should be a focus to ensure that projects are within time and budget.

The study recommended development of time schedules based on the formerly developed WBS. Likewise, to develop accurate and attainable schedules, the study recommends accurate sequencing of activities. The process of sequencing the activities encompasses distinguishing dependencies and logical relationships between the project activities. A time schedule without control is not useful to the project organization hence regular checks and controls should be conducted in order to identify deviations as early as possible. Early detection of deviations will enable necessary actions by the project team.

The study recommended that for a successful construction project planning, material usage planning should be a focus. This is because accurate material scheduling improves productivity by decreasing the necessary lead-time, giving the construction project owners a higher quality of production and service. Firms should adopt this, as it will give them a competitive advantage.

5.5 Suggestions for Further Research

This study investigated on effects of project planning practices on performance of construction projects in Nairobi City County. The study suggests that further research to be done on inter-organizational factors facing success of construction projects. The study considered four independent variables (human resource planning, financial resource planning, material usage planning and time management) which according to the findings contributes to 83.4% on performance of construction projects as represented by the adjusted
$R^2$. The study therefore suggests further study to establish the contributors of 16.6% on performance of projects. Finally, the study recommends a similar study to be conducted in other counties to reflect the real situation across the country. Such study findings will provide a guideline that will help in coming up with government policies.
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APPENDICIES

APPENDIX I: INTRODUCTORY LETTER

RE: REQUEST TO FILL IN THE QUESTIONNAIRE

I am an MBA student at Kenyatta University conducting a research on: effects of Project planning practices on performance of construction projects in Nairobi City County, Kenya.

This is to kindly request you to assist me with some information required for me to achieve my research objectives as part of requirement for Master’s in Business Administration degree.

Any information given will be treated confidentially and will be used for this research only.

I highly appreciate your valuable time in participating in this research as you support the addition of new knowledge to aid both the academy and the industry.

Regards,

Catherine Ndavi

The Researcher/ Student
APPENDIX II: QUESTIONNAIRE

SECTION A: BACKGROUND INFORMATION

1. What is the name of the company/organization (option)______________________________

2. Indicate type of the Project
   Road project [ ]
   Water and Drainage [ ]
   Housing Project [ ]

3. Who is the project owner?
   Local [ ]
   Foreign [ ]
   Local private or joint-stock companies [ ]

4. What is your highest level of education? Please tick (□)
   □ Masters Holder □ Degree holder □ Diploma □ A-Level □ Form 4
SECTION B: HUMAN RESOURCE PLANNING.

5. Indicate the extent to which you agree or disagree with the following statements using the following 1-5 extent scale 1. Strongly Agree (SA), 2. Agree (A), 3. Not sure (NS), 4. Disagree (D) 5. Strongly Disagree (SD)

<table>
<thead>
<tr>
<th>Statements</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
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</thead>
<tbody>
<tr>
<td>Human resource department is majorly involved in the company’s planning process</td>
<td></td>
<td></td>
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<tr>
<td>The formulation and implementation of human resource training are in line with overall goal</td>
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<tr>
<td>The human resource management function is accorded an important role</td>
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<tr>
<td>All resources were allocated (qualified personnel and infrastructure)</td>
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<tr>
<td>Training was done to project team members</td>
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<tr>
<td>Project managers were involved in planning stage</td>
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</table>

6. Kindly indicate the challenges human resource department have experienced in making sure projects are implemented on time........................................

SECTION C: FINANCIAL RESOURCE PLANNING

7. Indicate the extent to which you agree or disagree with the following statements using the following 1-5 extent scale 1. Strongly Agree (SA), 2. Agree (A), 3. Not sure (NS), 4. Disagree (D) 5. Strongly Disagree (SD)

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</tr>
</thead>
</table>
Project cost was well estimated
The budgeted funds were enough to complete the project
Budget for the project was properly determined (combining the estimated costs of individual activities or work packages to establish an authorized cost baseline)
The project manager was able to forecast expenses
Project completion was done without struggle

8. Other than the factors mentioned above, kindly indicate other contributors of project not being completed with the planned budget………………………………………

SECTION D: MATERIAL USAGE PLANNING

9. Indicate the extent to which you agree or disagree with the following statements using the following 1-5 extent scale 1. Strongly Agree (SA), 2. Agree (A), 3. Not sure (NS), 4. Disagree (D) 5. Strongly Disagree (SD)

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<tbody>
<tr>
<td>Appropriate material was provided</td>
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<tr>
<td>Project material and organization was well communicated during planning phase</td>
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<tr>
<td>Project Scope was well specified</td>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>Project output was well defined</td>
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<tr>
<td>Quality planning carried out</td>
<td></td>
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<tr>
<td>All material resources allocated were used</td>
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</table>
SECTION E: TIME MANAGEMENT

10. Indicate the extent to which you agree or disagree with the following statements using the following 1-5 extent scale 1. Strongly Agree (SA), 2. Agree (A), 3. Not sure (NS), 4. Disagree (D) 5. Strongly Disagree (SD)

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<tbody>
<tr>
<td>The project scope was well specified during planning phase</td>
<td></td>
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<tr>
<td>Schedules were well developed (prepared)</td>
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<tr>
<td>Activity duration was well estimated</td>
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<tr>
<td>The project was completed on the original (planned) schedule</td>
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<tr>
<td>All projects were completed on the agreed time</td>
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</tbody>
</table>
SECTION F: PROJECTS PERFORMANCE

11. Indicate the extent to which you agree or disagree with the following statements using the following 1-5 extent scale: 1. Strongly Agree (SA), 2. Agree (A), 3. Not sure (NS), 4. Disagree (D), 5. Strongly Disagree (SD).

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</thead>
<tbody>
<tr>
<td>The output/delivered product met the specifications in the planning stage</td>
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<tr>
<td>Quality work was performed</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Project cost was well estimated</td>
<td></td>
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</tbody>
</table>

12. If project monitoring and reporting mechanism was included in your project planning processes, what type of mechanisms were applied?
   a. Work force assignment [ ]
   b. Progress tracking [ ]
   c. Week end modifier [ ]
   d. Budget management [ ]
   Other specify: __________________________________________________________
APPENDIX III: KENYATTA UNIVERSITY RESEARCH AUTHORIZATION

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Our Ref: D53/CTY/PT/31973/2015

DATE: 25th September, 2018

Director General,
National Commission for Science, Technology
and Innovation
P.O. Box 30623-00100
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR NDAVI CATHERINE MUUTE – REG. NO.
D53/CTY/PT/31973/2015

I write to introduce Ndavi Catherine Muute who is a Postgraduate Student of this University. The student is registered for M.B.A degree programme in the Department of Management Science.

Ndavi intends to conduct research for a M.B.A Project Proposal entitled, Project Planning Practices and Performance of Construction Projects in Nairobi County, Kenya”.

Any assistance given will be highly appreciated.

Yours faithfully,

PROF. PAUL OKEMO
DEAN, GRADUATE SCHOOL
APPENDIX IV: NACOSTI RESEARCH AUTHORIZATION

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471, 2241349, 3310571, 2219420
Fax: +254-20-318245, 318249
Email: dg@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

Ref: No. NACOSTI/P/18/35844/26067* Date: 3rd November, 2018

Catherine Muote Ndavi
Kenyatta University,
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on “Project planning practices and performance of construction projects in Nairobi County, Kenya” I am pleased to inform you that you have been authorized to undertake research in Nairobi County for the period ending 2nd November, 2019.

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

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

DR. STEPHEN K. KIBIRU, PhD.
FOR: DIRECTOR-GENERAL/CEO

Copy to:
The County Commissioner
Nairobi County.
The County Director of Education
Nairobi County.
APPENDIX V: NACOSTI PERMIT