

**INFLUENCE OF PROJECT DESIGN FACTORS ON THE PERFORMANCE OF
GREEN TECHNOLOGY MARKET PROJECTS IN MERU COUNTY, KENYA**

SILAS DENNIS BARASA

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

2020

DECLARATION

I declare that this research project is my original work and has not been submitted for award of degree in any other university or college for examination or academic purposes.



Signature: ... Date: ...5th September 2020

Silas Dennis Barasa

L50/10818/2018

This research project has been submitted for examination with my approval as the University Supervisor.

Signed..... Date

Dr. Reuben Wambua Kikwatha.

Lecturer,

School of Open and Distance Learning

University of Nairobi

DEDICATION

This piece of work is dedicated to my dear wife Elizabeth Nyambura Wembu, my two joyful sons Lavon Miles Barasa and Cephas Joseph Barasa who constantly supported my study through advice and finances.

To God is all the glory forever.

ACKNOWLEDGEMENT

First, I give my heartfelt gratitude's to Almighty God for guidance in my academic journey and also for giving me the knowledge and skills required to handle this research project. He gave me the courage and endurance from the start to the end. Passionately, I extend my warmest of appreciation to my research project supervisor Dr. Reuben Kikwatha who devoted most of his precious time to oversee me in this research project without tiring and giving up on me. He has been very patient with me and i have learnt so much from his fatherly advice which is priceless.

I cannot forget my fellow classmates' class of 2020 with whom we have walked this journey together. I also take this chance to thank my dear father Ernest Barasa and lovely mother the late Gentry Ajiambo for their humility and meekness in encouraging me all through my study. I also take this opportunity to thank my dear siblings Caroline, Kennedy, Maurine, Joyce for their encouragement, patience and understanding during my study period and also I express thanks to my nephew John Ochieng who supported on creating an online form for research instrument. I also give thanks to co-operative bank staffs at Isiolo & Makutano branches for their overwhelming support during the study more so special support from my friend Samson Sigei. Last but not least I also thank my mentor Prof. Thomas Akuja, and Mr. Andrew Okoyo who on many occasions continually encouraged me to aim high.

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ABBREVIATIONS AND ACRONYMS

BIM:	Building Information Modeling.
EIA:	Environmental Impact Assessment
ESP:	Economic Stimulus Programme
FPM:	Fresh Produce Market
FY:	Financial Year
GB:	Green Bonds
GTM:	Green Technology Market
ICT:	Information and Communication Technology
IDA:	International Development Association
KITP:	Kenya Industrial Transformation Program
KNBS:	Kenya National Beasure of Statistics.
MCDP:	Meru County Development Plan
MCG:	Meru County Government
MoTIHUD:	Ministry of Transport, Infrastructure, Housing and Urban Development.
MOU:	Memorandum of Understanding
NACOSTI:	National Commission for Science, Technology & Innovation
NaMSIP:	Nairobi Metropolitan Services Improvement Project.
NEP:	New Environmental Paradigm
QMP:	Quality Management Practices
VBN:	Value Belief Norm
WB:	World Bank

ABSTRACT

Green Technology Market projects have immensely developed in the 21st Century with global spotlight on design of green techniques for preservation of farm produce and Environmental conservation at the market. However, the pragmatic literature posits that they maneuver on colossal budgets and yet mainstream of the projects have aborted in less than five years. Perhaps, the project drivers are not well expressed at the design phase obstructing their performance. In the luminosity of this, study seeks to establish the influence of project design factors on the performance of Green Technology Market projects in Meru County, Kenya. Design factors under study are infrastructure, Stakeholders' Involvement, Quality management practices and beneficiary Selection. The study was twirl on theory of Value-Belief-Norm, Environmentally Responsible Behavior, Diffusion of Innovation and Stakeholder. The sample size was 85 total populations of 204 sampled using stratified random sampling criteria. Questionnaires were administered to collect primary data. Descriptive statistics and multiple regressions were utilized whereas qualitatively open-ended questions were analyzed using conceptual content analysis method. The multiple regressions established the influence amid variables. The results across the area of study on major gaps were analyzed objectively using statistical packages SPSS version 25. The data was tabulated for presentation. There was a spike in years of operation of Green Technology Market Projects for the last five years. Traders share facilities at the market. Traders accessed quality facilities at the market. Furthermore, to great extent traders comprised of project committee identified in fair process and had knowledge and skill on project design. Locals supplied labor needed in the project design where beneficiary's selection was fair prioritizing the local traders and also tenders were awarded to locals. The study also found that traders accessed quality of services. The study initiate that a unit increase in project infrastructure would lead to 0.067 increase in the performance of Green Technology Market Projects in Meru County, Kenya; a unit change in beneficiary's selection would lead to 0.050 increase in performance of the project; a unit change in the score of stakeholders' involvement would lead to a 0.046 change in performance of the project and a unit change in the score of quality management practices would lead to a 0.040 change in performance of the project. The variables were significant since p-values were more than 0.05 and alternative hypothesis were accepted while the values for F-calculated were greater than F-critical (4.001). The study concluded that project infrastructure had the greatest influence, followed by stakeholders' involvement, Quality Management Practices while Beneficiary's selection had the least influence on the performance of Green Technology Market Projects in Meru County, Kenya. The study also recommends that market designs should embrace greener technologies such as harness of solar energy through roofing of markets with solar panel materials, proper waste disposal with biogas production technologies from green wastes, proper clean water supply, proper parking and green landscapes for aeration, adequate refrigeration facilities to preserve agri-foods from yield loss hence enhancing food security for growing population and achieve poverty reduction as a key focus in the sustainable development goals and also achieve the Big Four Agenda of the Kenyan Government.

KEY WORDS: Green Technology Markets, Project infrastructure, Beneficiary's Selection, Stakeholders' involvement, Quality Management Practices, Project Design.

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

In corollary of spiraling universal ecological impacts caused by global warming, ambiance change, Green House Gases and depleting green energy outputs, green technology has hit the global timelines as a technique for growth of economies with priorities in modern design of market projects for worldwide perspective. Pragmatic literature insinuates that such technologies are directly proportional to achievement of sustainable development goals across the globe changing the mankind's intention towards the environment for both the present and future society (Badau et al., 2016). The green technology markets are highway to reducing post harvest loses of Agricultural products awaiting for sell at the farmer's market.

In Kenya, Kadurenge, 2016 posits that major blueprint projects through Economic Stimulus Programme (ESP) was designed objectively to have market stalls in all sub-counties in Kenya in order to salvage the country from agony of unemployment, stagnated rural development and also increase opportunities to both wholesale and retail horticultural farmers to marketing pathways. Therefore, this implies that conventional market structures such as farmers' stand, open air markets and direct sale are inadequate form of market projects for horticultural traders in Kenya and one has to shelter under Green Technology Markets for efficient display and linkage with end consumers of their fresh produce. Furthermore, Cherono, 2016 critics that green technology markets are an imperative spring of fresh fruits and vegetables for mass population in Kenya crosscutting rural, urban, and suburbs areas. Perilously, it's evident that Green Technology Markets need clear managerial structure by County Governments and well laid tax collection framework which can reciprocate to quality of services at such markets.

Globally, markets have grown spectacularly in United States from 1994 to a tune of 8,268 markets in 2014 with farmers selling fresh farm outputs whereas, in Oregon about 62 markets were launched but 32 closed, the findings concluded, that increasing attractiveness was directly proportional to collapse rate (Vaudrin, 2016). Stephenson, Lev & Brewer (2008) initiate that market projects collapse due to factors such as poor management style, inadequate capital outlay, miniature size, and inexpert managers. They further confirmed that Farmers Market in Boston reported a 50 percent plunge in turnout as at 2017. The design of green technology markets is vital and all stakeholders need to focus on sustainability of such projects.

In Africa, FAO, 2013 reports over 500 million small scale farmers globally who produce a paltry 80% of the food utilized in African and Asian market stalls. Freedman et al., 2016 study on Farmers' markets in US, acknowledged that markets entail farm stands and multiple farmers' stalls selling food for wholesale products such as fresh fruits, cereals and vegetables at the market place. Based on Kenya Vision 2030 the axle objective is to eradicate poverty, alleviate standard of living through sustainable economic growth and also strengthen efficiency service delivery to citizens. These include the establishment of metropolitan greener markets and stalls for trade in

the region (Kenya Industrial Transformation Program July 2015). Market stalls are focal point where trade takes place in Kenya and the devolved governments have to strategize and put more funds in such projects for they enhance economic development through trade and they are key source of revenue to both rural and urban counties.

In Kenya, about 50% of poor populations nationally are disposable purchasers of fresh horticultural food from markets with expenditure of 50-70% of total consumption annually. Furthermore, 68.3% of fresh horticultural food utilized in Kenyan peri-urban segments originates from purchases whereas their counterparts in hinterlands and rural regions consume a trifling 57.4% of fresh horticultural food. Food insecurity is a stumbling block to Kenyan Government and feeding its population is key to her well thought plan in the Big Four Agenda (Kenya National Bureau of Statistics, 2018). Significantly, majority of the population in Kenya depend on markets as food basket where they buy fresh horticultural food and the Government has to substantially support the Green Technology Market Projects to conserve the produced food awaiting sale at the market.

Onyango, Wagah, Omondi & Obera (2013) argues that bazaar in Kenya, involve a multifaceted market stalls organized in open air and majority of cities in suburbs have emerged due to strategic location of markets while Morales (2011) posits that traders congregate sporadically to sell produce and other products on the market. He further alludes that markets are central to political landscapes, social clustering, economic growth and finally cultural acumen of many regions in the world. Therefore, market stalls provide suitable protection to traders against harsh environmental conditions and hazards associated with market place exposure.

Govindasamy, Italia & Adelaja (2009) in their study on Farmers' Markets: Consumer Trends, Preferences, and Characteristics in USA observed that 1% of participants in the survey obtained their groceries through advertisement, 92% had identified from farmers' markets, 33% express farm markets and finally 22% from other facilities. Sommer et al., 2013 argues that clients utilize farmers' markets principally to window shop for quality of services and also familiarize with key products at the market whereas Brooker, (2010) posits that over years there is increased demand for freshly produced fruits, cereals and vegetables owing to high demand for tasty, juicy, high flavored and nutritionally viable fruits hence prolific production and marketing. Therefore, we need to design robust green technology market facilities for farmers to refrigerate produce thus sell their produce directly to consumers and fetch high prices.

Project Performance is an essential project management issue and project design is among essential topics discussed. A project includes an enterprise that utilizes raw materials to output desired products with the confines of schedule, budget to achieve the expected timelines of stakeholders. In another discourse a project entails inputs to produce outputs for the target population for certain timeline (World Bank, 2013). On contrary, Kaliba et al., 2009 critics that projects include funding of governmental infrastructure facility like Markets and other micro-

enterprises. Critically, a project is an investment that calls for human capacity, capital investment, Favorable business environment and non human capacity in the design of Green Technology Market Projects.

In Africa, urban foodstuff market is overflowing and it is expected to triple, growing from US\$50 billion to US\$150 billion (Wiggins 2012). Africa has to plan for its population by putting up market infrastructure that promotes local trade of agricultural products. However, FAO (2013) points out that export benefits handful smallholders while majority of them are still wallowing in poverty particularly those that are more marginalized, including women, youths, people with disability requires a special attention and support when accessing export markets (IFAD, 2010). The design of green technology market projects is paramount for marginalized small holders to access market structure for marketing their produce at a reduced cost.

In East Africa, Karatina green technology market in Kenya is the largest of all markets and second in Africa. The market was designed under the Economic Stimulus Project (ESP) with a budgetary allotment of close to Sh 265 Million which was later refinanced to a tune of Sh 367 Million. The design specification of the market was to host over 3000 stalls with daily sales generating income to the economy. Ogeya, 2014 posits that market places has setbacks such as facing poor storage facilities, overcrowding of traders, lack of clean water, inadequate sewerage system, frequent crime, and environmental dilapidation. For instance, Amuko (2013) noted with concern on Kawangware market with highlight on orthodox policy procedures that cannot support adequate trading space and good sanitary facilities and good quality of services. In pursuant of policy framework and design of markets has to meet the expectations of benefactors and other stakeholders in the project.

In Tanzania, selling fresh produce at the Market stall offers competitive prices to traders leading to their pay rise (Al-Hassan et al., 2006). They further argue that effective utilization of mark stalls improves food security, creates employment, and improves horticultural production in the economy. However, Hugo et al., 2006 supports the argument that enhancement of market right of entry is directly proportional to increased trade and eventually amplified proceeds. In Kenya, green technology markets are managed by the county government authorities who regulate traders, grant entry, collect tax, provide services, design and maintain the market stalls (Cherono, 2016). Muthoka (2006) observed that hiring private firm to supply such essential services is futile and in the long run citizens suffer due to compromised quality standards. Therefore, the market management authorities need to be vigilant in executing their mandate in resource allocation and waste management in order to enhance quality of service delivery on markets.

1.1.1 Performance of Green Technology market projects

Climatic changes are distress to global population due to associated impacts on ecology and scholars and experts on environment have adopted sustainable green technologies in designing and building projects (Badau, 2016). Therefore, the field of green market projects includes a gradual evolution of environmentally friendly designs for reducing pollution.

Otekunrin, Momoh & Ayinde (2019) observed over four advertising channels adopted by traders at the market and this included market stalls, farm door, community market, agreement sales and family unit & acquaintances. The study concluded that farmers considered farm door selling than other outlets due to higher prices obtained at the same promotion method. They further noted that other options could limit them to storage facilities, prorated the business price. The current study defines Green Technology Market (GTM), as techniques within the market project design that aims at plummeting green risk and food scarcities to enhance sustainable development without degrading the environment.

1.1.2. Green Technology project design

The project infrastructure among traders is one of the independent variables in the current study and it is measured by accessibility to Infrastructure, Quality of infrastructure and Nature of infrastructure. (Kikwatha, 2017) argues that Infrastructure is merely the raw materials and amenities indispensable for any nation to perform effectively. Accessibility to modern facilities has a remarkable influence on design of Green Technology Projects since challenges in nature and quality of infrastructure hampers green market projects to technologically perform around the globe. Deng (2013) and the World Bank (2009) both agree that investments and assets are central to well being or drawback for any project around the globe either public or private entity.

Stakeholder's involvement is regarded as a key pillar for good governance and can be measured by stakeholder's Level of contribution, Participation in decision making and accountability of project activities as a strategy in the Green Technology project design. Laah et al (2013) explain that project can only achieve its objectives if benefactors are well aligned with design plan and project execution criteria. They further note that sustainability of such projects has to involve liability, intelligibility and justification. As a result, a plan should be developed right at the start to analyze the needs of all people, review operations and provide measurable goals in the green technology design projects.

Quality management practices such as accessibility to quality services, Knowledge on quality aspects and Training on quality certification need to be set in the Green Technology Project design to verify influence on presentation of market projects. Pioneers in quality movement and experts, such as Deming, Juran, Crosby and others described 'quality' in different ways. Edwards Deming asserts that quality is conventional extent of uniformity and reliability with a quality set suited to the client (Chandrupatla, 2014). Furthermore he posits that, customer is the

most precious part of the Project blueprint and therefore quality should be aimed at the present and future needs of the consumer.

The project beneficiary selection is a variable that is assessed by use of Community ownership, Participation in project execution, and role played in resource allocation and their influence on how the market projects perform technologically. According to Kikwatha (2017) he asserts that complexity of benefactor choice necessitates well thought preference of appropriate paraphernalia, method and process of project recipient selection. The importance of beneficiaries' participation is reinforced by Swanepoel & de Beer (2006) by saying that benefactors have to be considered in needs identification process through needs assessment techniques and elites cannot impose needs to community. Consequently, needs assessment and identification is a precondition prior to any exploit of Green Technology design project.

1.1.3 Green Technology Market Projects in Meru County

Meru County is among the Forty Seven (47) counties of Kenya advantageously positioned at southern periphery of Mt Kenya. The County has invested in Agriculture as a cornerstone sector of its economy and trade is considered as the main channel to market and sell their horticultural products to both locals and external buyers. The quality of the produce is unique and it's demand traverse across the nation and also the export markets. The County government has partnered with stakeholders from diverse corridors of the globe in order to enhance production of produce, create market and also put up Green Technology Market Stalls to support local traders and farmers. (Meru County Development Plan-MCDP 2018/2022).

In spite of the above, the County has identified trade as a hotcake to increase income, employment and economic productivity within the County. The County government of Meru has prioritized trade as its key pillar in selling agricultural produce through design of market stalls in the region per sub-county. Prominent markets with green technology flagship include; Athiru Ruujine Market, Nchiru stalls, Mikinduri Cereals and Livestock market, Katheri Market, Kangeta Market, Kiguchwa Market, Gakoromone stalls, Nkubu Fruits & Vegetable stall, Maua Cereals, Fruits and Vegetable Market, Mutuati Fresh produce market, among others (MCDP 2018/2022).

1.2 Statement of the Problem

In the 21st century, design of Green Technology Market projects face hindrances than success due to poor infrastructure facilities, poor quality management practices, inappropriate project beneficiary selection, and finally poor composition of project stakeholders. According to Government of Kenya (2014), infrastructure is vital in the economic development of any nation by increasing productivity and competitiveness. Kathure (2013) observed that Meru County experienced delay in commencement of infrastructure development project while Kimathi (2016) posits that Meru county government faced poor economic growth, which was contributed by poor infrastructure.

However in Nigeria, Sunjka & Jacob (2013), attributed project failure to unsatisfactory subsidy and poor regulation of budget halts project design in Niger Delta which agrees with (Ngahu, 2015) who points out that infrastructure facilities are critical to project recital and Haseeb (2011) observed that delays in Parkistan are caused by restructure of blueprint and also insignificant resource allocation by affected stakeholders.

Studies have been done in respect to Green Technology Market projects which include work done by Njunge (2015) on Relocation of Kayole market to Sagana bus terminus only focused on monitoring, evaluation and implementation of market projects and the study did not consider influencing factors in the project design on the performance of greener markets. Freedman et al., 2016 the study only illuminated on the variety of farmers' market projects in reality, but the study did not focus on influencing factors in the project design on how market projects perform.

Based on the study by Adek (2015) on implementation of infrastructure projects in Mombasa County only focused on Infrastructure and did not focus on other factors that influence how green market projects perform such as quality management practices, stakeholder involvement, project beneficiary selection and project infrastructure whereas, Govindasamy, Italia & Adelaja (2009) in their study on Farmers' Markets: Consumer Trends, Preferences, and Characteristics in USA only focused on marketing techniques without emphasis on influencing factors in the project design on the performance of green technology market projects. These studies did not focus on the projects infrastructure, project beneficiary's selection, stakeholder involvement, and quality management practices and how they influence the performance of the green technology market projects. Therefore, the current study fills the gap by establishing how the project design factors such as project infrastructure, stakeholder involvement, project beneficiary selection, quality management practice and how they influence the performance of the green technology market projects in Meru County, Kenya.

1.3 Purpose of the study

The study sought to demonstrate the influence of project design factors on the performance of green technology market projects in Meru County

1.4 Research Objectives

The objectives of the study were: -

- i). To examine the extent to which the project infrastructure influences the performance of the green technology market project in Meru County, Kenya.
- ii). To evaluate the extent to which the stakeholder involvement in project influences the performance of the green technology market project in Meru County, Kenya.
- iii). To investigate the extent to which the project beneficiary's selection influences the performance of the green technology market projects in Meru County, Kenya.

- iv). To investigate the extent to which the project quality management practices influences the performance of the green technology market project in Meru County, Kenya.

1.5 Research Questions

The study sought answers to the following research questions:

- i). To what extent does the project infrastructure influence the performance of the green technology market project in Meru County, Kenya?
- ii). To what extent does the stakeholder involvement in the project influence the performance of the green technology market project in Meru County, Kenya?
- iii). To what extent does the project beneficiary's selection influence the performance of the green technology market project in Meru County, Kenya?
- iv). To what extent does the project quality management practice influence the performance of the green technology market project in Meru County, Kenya?

1.6 Hypothesis Testing

The hypotheses of the study were: -

H₀: There is no significant influence between project infrastructure and the performance of the green technology market project in Meru County, Kenya.

H₀: There is no significant influence between stakeholder involvements and the performance of the green technology market project in Meru County, Kenya.

H₀: There is no significant influence between project beneficiary's selection and the performance of the green technology market projects in Meru County, Kenya.

H₀: There is no significant influence between project quality management practices and the performance of the green technology market project in Meru County, Kenya.

1.7 Significance of the study

The study sought to enable policy initiators in green technology market designs to advance in the socio-economic development through poverty reduction, creation of jobs, improve quality of living, broaden income base and increase literacy level. The policy makers includes County government planners, ministry of planning, National development, vision 2030, sustainable development goals and the Big Four Agenda of the Kenyan government.

These conclusions on influence of project infrastructure on performance of Green Technology Market projects will be critical in the development of governmental policies that relate to trade practices within Meru County. While the findings would be critical to the national government, they will support the county governments because Market project is a devolved function in the Ministry of Trade. The greatest impact would be on allocation of resources that county

government offers to its people and the manner in which the market projects can be designed effectively to improve on trade from the region. This would be vital in improving trade productivity.

This study will be of enormous value to project stakeholder's involvement in the project design process especially National government, NGOs, financial institutions and County government planners as it clearly outlines the factors that influence in one way or the other the performance of Green Technology Market projects funded by Meru County, Kenya. This would enable Meru County government planners and management team impending key success factors through stakeholder involvement to ensure that the Green Technology Market projects they will fund next will be successful.

The study also will determine how quality management practices influence the performance of Green Technology Market projects in Meru County. The study provided relevant information to different experts of Quality Management Practices (QMP) to the extent that they would be able to formulate effective policies on QMP. In addition, its findings will lay some foundations for further research on influencing factors of project design on the performance of Green Technology Market projects in all counties in Kenya.

The study also will determine how project beneficiary's selection influences the performance of Green Technology Market projects. The study will equip the project beneficiaries with relevant information to the extent that they would be able to understand the criteria of selection in any project design process. In addition, its findings will lay some foundations for further research on influencing factors of project design on the performance of Green Technology Market projects in all counties in Kenya.

1.8 Delimitations of the Study

The study indented to establish influence of project design factors on the performance of Green Technology Market projects in Meru County, Kenya. The study focused mainly on the influence of project beneficiary's selection, project infrastructure, quality management practices and involvement of stakeholders on the performance of Green Technology Market projects in Meru County. The study will be delimited to Imenti South Sub county market projects. The respondents composed of Meru County ministry of Trade officials, ministry of Trade and Industrialization officers, and small scale traders at the market in Meru County and community leaders. The study was scheduled for four months.

1.9 Limitation of the Study

The study encountered a number of hindrances that limited it in one way or the other. For instance, some respondents were affected by factors such as mistrust and they were indisposed to give out their backdrop information but the investigator guaranteed them of the discretion of the study. Some respondents gave pleasurable feedback to shun felonious act to the investigator;

however, this was set on by informative training to them that the research will be simply academic work as per objectives.

Some respondents were limited by communication barrier to relay information to the researcher; however, this was resolved by the researcher who identified spokes person who understood the local dialect to relay information. The researcher was also limited with time to conduct the research; however, the researcher got approval from the employer for local leave thus the researcher was able to conduct the study within the expected timeline.

1.10 Assumptions underlying the Study

The study was implicit that target population would not change significantly to the extent that such change would influence negatively the effectiveness of the sample in representing the population. Also, it assumed that respondents would be friendly throughout the data collection process and that they would provide accurate information. Also, it presumed that Climatic Conditions would be favorable throughout the data collection process and that heavy rainfalls would not negatively hinder the data collection process. Furthermore, it presumes that authorities within the county would grant researcher permission to collect data from various stakeholders.

1.11 Definition of Significant Terms

Project Performance: The way a project works in terms of achieving desired outcomes within a stipulated budget and time.

Stakeholder Involvement: This is contribution of the benefactor of the project who play a part in project activities in a bid to make the design of the projects successful.

Project Beneficiary's Selection: These are criteria or methods of identifying people who manage project, community people affected openly or ultimately by the project, people who work in the project by either supplying labor or other products that are needed in the project among others.

Project infrastructure: Refers to capital and human resources required during a project cycle to avail facilities such as Power and Lighting facility, Water Supply, Selling stalls and Partion of market, Refrigeration facilities, Sanitary facilities, Telecommunication facility and ventilation facilities.

Quality Management Practices: Refer to project activities substantial in developing a blueprint and execution of the project to successfully meet the objectives with conformance to quality standards.

1.12 Organization of the Study

The study comprise of 5 chapters with chapter one focusing much of its attention on background information relating to the study. As such, it identifies the main research problem, study's objectives, limitations and delimitations together with identifying study's importance to the field of study among other relevant issues. Chapter two review the studies that have been published before that relate to the area of interest together with theoretical and conceptual frameworks utilized to conduct the study. Chapter three highlights the methods utilized to conduct the study in terms of collecting and analyzing the data and ethical measures observed to ensure the study was done in the right way. The fourth one provides the main findings whereas the fifth one concludes the study by summarizing and discussing the findings as well as recommending the areas for further researches.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter focuses much of its attention on prior studies conducted that relate to performance of Green Technology Market Projects. Also, it addresses itself to theoretical and conceptual frameworks applied throughout the study before summarizing the main findings from previous studies and research gap in them.

2.2 Performance of Green Technology Market Projects.

Green Technology Markets (GTM) is an antique technique in trade with tremendous transformation of farmers market. The World Bank (2018) notes that in Latin America about 20 projects amounting to US\$ 1 billion funding from 2000 shows it's possible to increase output, market assimilation and revenue of smallholder farmers by forging stronger relations between producers, buyers and the civic sector. In Colombia and Bolivia project financing grew by a margin of 30% and most dynamic links sustained the operation long after project conclusion. Allocation of resources by those in authority is the key to emergency of substantial market projects in the world today.

Wilson, Witzling, Shaw, & Moralesd 2018, argues that incursion of novel markets, is decisive to incorporate obstacles encountered by market authorities so as to adequately support researchers, and communities in mobilizing resources in the design of such markets and also enhance sustainability in their performance. Advertising foodstuffs at the markets is intrinsic to traders for increased business returns (Conner et al., 2010). Similarly, a study by Otekunrin, 2019 revealed that to unbutton market entrance to micro-enterprises is a plausible idea however such projects entangle several shortcomings which include poor infrastructure facilities, inadequate information on markets, incompetent managers, poor skills on quality standards, incomplete structure designs, and poor managerial support, leading to inappropriate use of some markets in Nigeria and South Africa.

In Kenya, Institute of certified public Accountants of Kenya devolution baseline survey (2014) observed different counties indicate that they inherited poor infrastructure thus hindering them from effective implementing their functions and Meru County reported less than 15% infrastructure growth, which affect intensification and improvement in the county. Meru county development has been hindered by poor infrastructure especially in areas where agriculture is practiced, although being among the 5 counties that had more than 25% priority to agriculture (ICPAK, 2014). Furthermore, the Ministry of Transport, Infrastructure, Housing and Urban Development in 2017 prioritized to upgrade the following markets Wakulima market the largest in Nairobi County, Kongowea market large with 1,500 stalls in Mombasa, Gikomba, Kariakor, Muthurwa, Marikiti among others. Sincerely speaking, the Performance of green technology market projects is directly proportional to infrastructure investment and resource build up by project donors.

2.3 Project Infrastructure and the performance of Green Technology Market Projects.

Sarah (2012) identified infrastructure as material constituent of coupled systems which supplies commodities and social amenities indispensable to uphold a communal living. Kikwatha, 2017 premeditated the liaison linking project infrastructure and growth and instituted affirmative and considerable affiliation. Therefore, proficient and inexpensive infrastructural services play a key role to the higher performance and output growth of any Green Technology Market project.

Sahoo and Dash (2010) agrees that Infrastructure speculation is an imperative dynamic power to accomplish rapid and persistent fiscal enlargement. For sustained economic growth adequate infrastructure facilities are absolutely imperative in any country. The accessibility of infrastructure such as electricity connection, communication network and transportation project is an icon to rapid growth and build up of wealth in an economy. Yadav, Chadel, & Sirohi (2014), asserts that quality infrastructure construct is a prerequisite to economic expansion of any nation globally. It's worth to note that without infrastructure there can't be economic development of the nation and a competitive economy invests extensively.

A study by IFAD (2006) found that robust infrastructure facility acts as a ladder connecting distinctive rural, urban and hinterland society with global world in a cheap economy and Kikwatha (2017) experiential literature unveils that infrastructural expansion is vital to social and economic growth of all sectors of the economy where trade is included and this agrees with Patra and Acharya (2011) who examined heterogeneity in infrastructural facilities in India and observed a significant influence between per capita income and poverty index in at least 16 states. Hence, nations have to create mechanism to mobilize resources and capacitate its population with huge development projects for revenue income, create job opportunities, build wealth, and also improve on human resource.

2.4 Project Beneficiary's Selection and The Performance of Green Technology Market Projects.

Project beneficiaries get selected by recognition of patriotic end-consumer or Motivation of beneficiaries will be a way of fueling the fanaticism in them to get involved in influencing the performance of Green Technology Market Projects. These recognition or motivations can be in the form citations, materials gifts, and free access to some market places or facilities. This will make them put in more effort and also encourage those who do not participate to chip in (Masole & Howie, 2013).

The study findings by Kikwatha (2017) on Project sustainability in Kenya indicated that project beneficiary's needs analysis is important in project beneficiary selection. While agreeing with this finding, Swanepoel and de Beer (2008) critics that diverse cluster of citizens opt for differentiated needs in a project thus need for clustering such needs based on urgency. Progressively, benefactors need to rally their needs in a project and have time to speak their minds about the project for this will enhance ownership and sustainability of the project.

Matiwane & Terblanché (2012) also agrees with this study that success of any project is pegged on motive raised by accumulative needs to be achieved in the design project.

Group of people involvement in want investigation is central as the desires are communally conceived to give way for design plan and execution of the project (Barasa & Jelagat, 2013). However, Thwala (2010) observes that benefactors' involvement in projects entails mobilization of local labor, making of critical decisions on the project course and even ownership of projects. Therefore, the community participation forms part of project beneficiary selection process and it's decisive in the success of any project.

2.5 Quality Management Practices and The Performance of Green Technology Market Projects.

QM is a viewpoint with a scientific point of view focused on organizational improvement in terms of service delivery at all stages of project execution. This can only be achieved through understanding and reducing extra work, save on time, reduce on cost, increase on quality features and finally meet customers' expectations (Ogula, 2012). Sharma (2008) further expounds that quality management (QM) is an attitude of incessantly civilizing the excellence of the goods, services, methodology by prioritizing client's needs and desire and firms presentation in any project.

The work done by Ahmed (2012) cited that utilization of quality aspects in construction projects in Yemen was a paltry 20% of total firms in the country and this contributed immensely to high productivity, competitiveness and substantial quality of services across construction companies. Goetsch (2010) also insinuates on the rationale of conniving projects with QM platforms is to enhance consumer contentment, add value to commodities, proper management of production process, staff credibility, improve on sales volume, sharp completion, quality lifespan of projects and finally reduce damages and project costs.

Nair (2016) affirms in his work that QM can only improve due to the following activities integrated in the process training staff on quality profile, certification of management team on quality controls, development of quality curriculum in training, adoption of changes in technology and finally quality improvement strategies. These activities are essential to both public and private firms in creating an inclusive QM criteria and techniques at grassroots which are profound and articulate quality standards and measure. This can help in molding responsive citizen who are sensitive on quality aspects and certification procedures.

2.6 Stakeholder Involvement and the Performance of Green Technology Market Projects.

Involvements by project stakeholders entail considerate association in the supervisory role accounting for views of all parties in the project mandate whereas Ogula, 2008 clarifies that involvement is the association where stakeholders have powers to listen to each other and make

a solid decision regarding a project, take ownership angle, make agreements, advertise the project, build human capacity in the project and finally mutual management of the project, Nuguti (2009) whereas Nyonje (2012) argues that ever since the independence of the country the Kenyan government initiated reforms for decentralization aiming at integrating mass people in development process. Therefore, Stakeholder involvement is regarded as one of the foundation for first-class governance. It helps to enhance liability, lucidity and ensure sustainability of development initiatives such as green technology design projects.

World Bank (2013) outlines different categories of stakeholders such as management team, Project staff, operational supervisors, donors, clients and benefactors while Wami, 2012 clarifies that principal stakeholders have core concern in the project performance and this include clients, managers, supervisors, members of the community. Stakeholders in green technology design projects such as Market projects can, according to Chinyio and Olomolaiye (2015), they include customers, strategists, patrons and peripheral persons. Stakeholders can also be classified as primary or secondary. It's paramount to identify the need for all people involved in a project because they all need each other and they influence project in one way or the other.

However, TeyeBuerter (2016) studied the categorization of stakeholders into diverse classes which included watchers and keepers, such as Trade unionists, community pressure groups and labor movements while Botchway (2011) postulated that keepers have no interest in the project but they can only influence its performance and they include autonomous regulators, such as public, dogmatic agencies and documentation entities.

Furthermore, Geek 2010 identified that donors in a project have a solemn role of keeping the project on track, financial accounting, monitoring & evaluation, and finally forecasting project cycles. They organize for strategic meetings, solve conflicts, allocation of workload, and control both human and capital expenses in the project. Newcombe (2013) postulated that construction projects have, by their nature, diverse stakeholders who play various roles and responsibilities in a project's delivery which determine the project outcome. These parties need to be managed effectively for a successful project delivery as meeting project stakeholders' satisfaction and needs, according to Project Management Institutes (2013).

2.7 Project Environmental Management Practices and the Performance of Green Technology Market Projects.

This is a moderating variable that is assessed by use of Pollution control measures, Waste disposal and management, Food preservation and management, People and their Health, and Energy conservation as strategy in the design of green technology market projects. Today, green according to Herbert, 2013 novel technologies entail techniques that are less impactful on nature, ecology, surroundings and use of green resources to change the current and future generation's way of life. This calls for use of information, communication and technology (ICT).

The 2010 Kenyan Constitution provides for legal framework to protect the environment, reduce harm to green in Section 42 Bill of Rights of the Constitution, it gives every citizen the right to access clean and healthy surrounding safeguarding the interest of current and subsequent population through drawing of legislation and measures to control environmental hazards. According to the County Government Act 2012 it set up guidelines on waste collection at the market, recycling of wastes, creation of authorities to clean markets, and finally garbage collection bins to be accessible to traders at the market.

Based on study by Maina, 2014 Meru County government has adopted waste disposal and sanitization training program for citizens and stakeholders in green surrounding. The program trains traders, customers, and citizens on waste segregation, disposal techniques, health management, disease transmission and lastly tree planting to purify the air. Collectively, if citizens, stakeholders, researchers and experts in green environment initiate such novel ideas on waste disposal, management of waste, control litter spillage, conserve environment and have sustainable policies and legal structure to protect the ecology then we can have generations sensitive to green surrounding.

2.8 Theoretical Framework

This section considered the essential theories behind the performance of green technology market projects. In this study the Theory of Value-Belief-Norm, Theory of environmentally responsible behavior, Diffusion of Innovation Theory and Stakeholder Theory were used.

2.8.1 The Value-Belief-Norm Theory

Paul Stern postulated the theory in 1999 with key concept of environmental paradigm mirrored on personal values, culture, believes, behavior and individual character towards environment. The theory continues to popularize that such norms manipulate whether a society is expected to accept some ecological behaviors. Ideally, the theory fits in the study in those clients, customers, and all citizens are able to conceptualize issues of environment and critically analyze issues around sustainability of the green technology in performance of their projects.

The theory has revolutionized human beings who are caring, knowledgeable and active on the conservation of environment handling diverse techniques of managing nature and using all the resources appropriately. In line with the theory project infrastructure central to design stage of a project and such facilities cannot be ignored during planning phase. For a project to be successful it requires funds and resources. This theory was relevant to the study in relation to resources needed such as the importance of project infrastructure influences the performance of green technology market projects in Meru County.

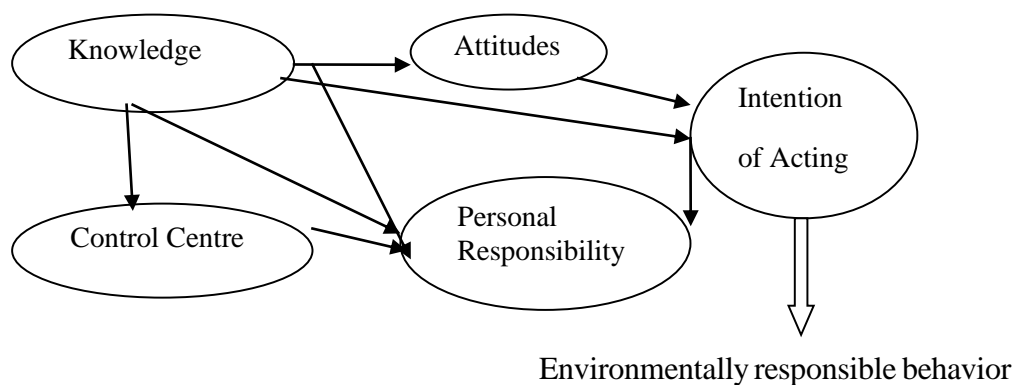
2.8.2 Theory of Environmentally Responsible Behavior (ERB)

Hines et al., 1995 proposed the theory on the basis of having the right behavior can make an individual to act either for or against the environment. The ERB argues that such behavior

includes right attitude, stability, sensitive to act, skills on environment and finally individual mindset towards surrounding. The current study agrees with the ERB where responsibility to protect the environment can be attained through affordable and clean energy technologies with less pollution to ecosystem, instill training on good environmental behavior to individuals to enhance sustainability.

This Theory is vital in the current study by highlighting the correlation between the power centre, individual mindset and personal actions on environment and how quality of conservation and management can be achieved. They further ascertain that ability to act on the nature is dependent on moral development of an individual in the society. This clearly confirms that positive attitude towards environmental management practices directly can influence performance of Green Technology market projects.

Figure 2.1: Theory of Environmentally Responsible Behavior



The Theory was important in the current study because it's Important to consider Quality Management Practices in the design of projects since they influence the performance of Green Technology Market Projects.

2.8.3 Diffusion of Innovation Theory

The theory was put forth in 1962 by Everett Rogers with the principles of novelty diffusion. The theory insinuates that transformation can rapidly move in residents through contact and hence transmit information regarding transformations to other individuals in the entire population through practical steps of acquiring knowledge, influencing others on innovations, execution of innovations (Gladwells 2000).

In the light of the above, a good investment on project beneficiary's selection can be vital in ensuring that organizations improve their productivity. It plays an important role in developing a work environment that enables project beneficiary's to perform their jobs effectively. The theory thereby claims that improvement of human capital straightens competitiveness of a project cycle. According to Kiser (2008), the theory appreciates the importance of involvement of project

beneficiary's right away from project design. This theory formed a basis for the project beneficiary's selection in the performance of Green Technology Market projects in Meru County.

2.8.4 Stakeholder Theory

The theory was postulated by Evans and Freeman in 1988 who argued that companies managed their relationships explicitly with variety of stakeholders groups for them to achieve the projects. Stakeholders of a project can either be from within an organization (employees, customers, suppliers or owners) or from outside an organization (consumer, advocates, competitors, media, conservationists or government officials among others). Stakeholder involvement is well explained by the Stakeholders Theory. The perspectives of stakeholders have intensified over the last few years thereby influence the way organizations perform. The relevance of this theory is demonstrated by the "dominant discourse" in organization theory (Swallow & Goddard, 2013), and by its applicability to different disciplines in management. It argues that the success of organizations depend largely on consideration of needs and goals of different groups of stakeholders (Webber & Labaste, 2010). Nevertheless, community members form an important part of stakeholders in projects that are carried out at community level. The theory argues that legitimate groups of people should take part in making decisions within organizations or projects because they are influenced by its outcomes in one way or the other (Donaldson & Preston, 1995).

The inclusion of community members, elders, government officials, NGOs and County Government Officials within the design of projects appreciate the critical role that partnership plays in ensuring that projects succeed. This enhances the contributions of all parties involved in running and managing projects. It particularly helps the members of community to develop their skills and even support projects to ensure that they succeed. This helped us to appreciate the importance of involving project stakeholders in the design of projects for they influence the performance of Green Technology market projects in Meru County.

2.9 Conceptual Framework

This framework combines the conceptual and theoretical issues surrounding an area of research. This study focused on influence of project design factors on the performance of Green Technology Market Projects in Meru County, Kenya. The independent variables in this study included project infrastructure, stakeholder involvement, project beneficiary's selection, and Quality Management Practices. The study also had Environmental management practices as moderating variables. The study therefore, identified the level of performance that independent variables have on the dependent one, which is the performance of Green Technology Market Projects in Meru County, Kenya.

Figure 2. 1 Conceptual Framework

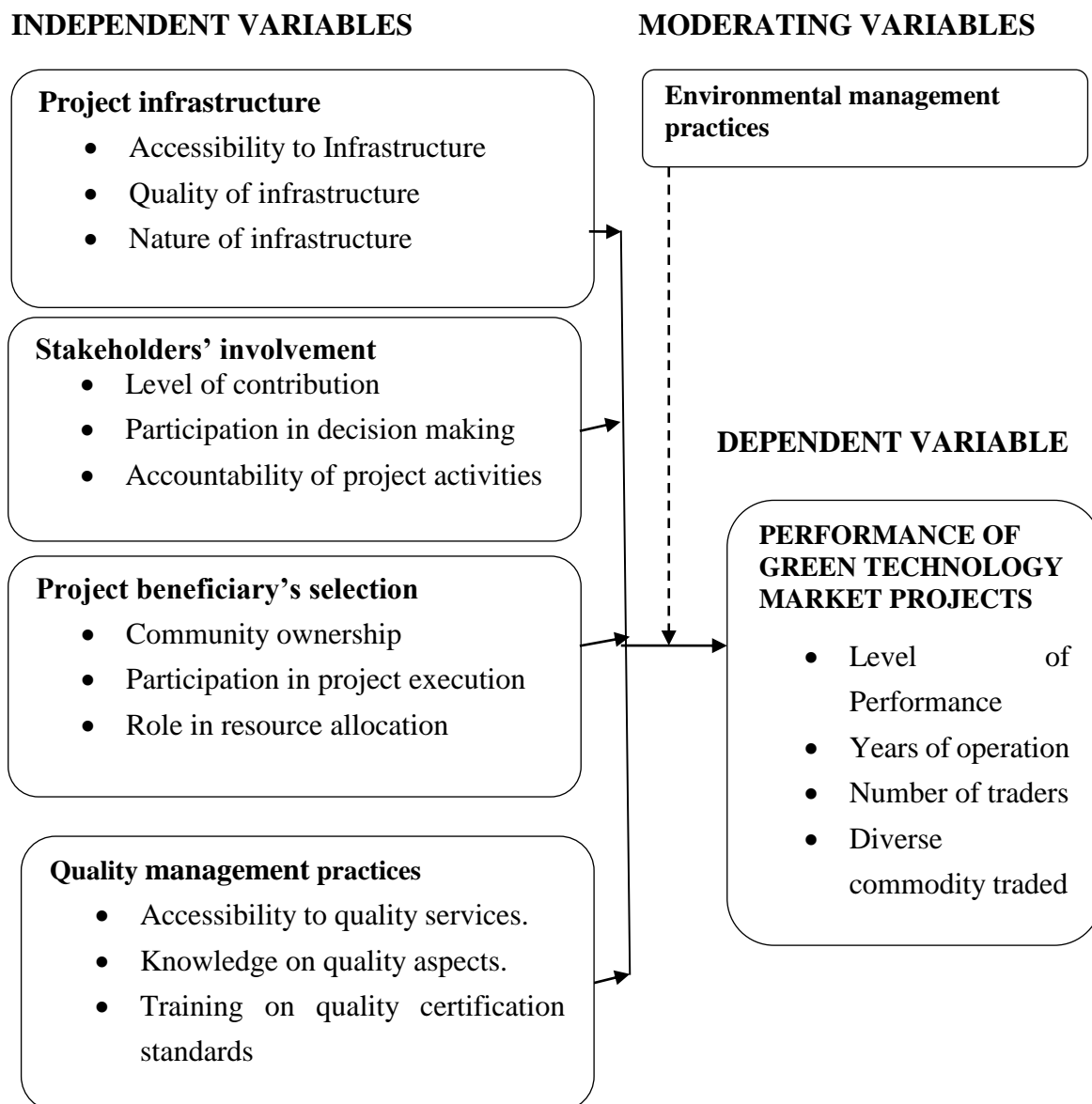


Figure 2.2: Conceptual Framework

2.10 Summary of Literature

The study was grounded on Theory of Value-Belief-Norm Theory, Theory of environmentally responsible behavior, Diffusion of Innovation Theory and Stakeholder Theory. The literature was expounded on influence of project design factors on the performance of green technology market projects in Meru County. Provision of infrastructure is one of the key factors that promote high performance of green technology market projects within Trade sector (Chen, 2019).

The availability of such facilities within the market stalls allows effective trade on the market thus high revenue collection. As a result, it helps in providing corrective measures taken by County Government Planners in execution of Policy framework early enough before projects get out of hand. This study will assess the influence of Quality management practices, project

stakeholder involvement, project beneficiary's selection and project infrastructure on Green Technology Market projects in Meru County, Kenya.

Studies have been done in respect to Green Technology projects which include; Njunge (2015), who evaluated factors influencing the Relocation of Kayole market to Sagana bus terminus. Azhar (2011) evaluated correlation between costs and risks in construction models in Georgia. Likewise, Eadie (2013) concluded on utilization of Building Information Modeling project infrastructure. Similarly, Govindasamy, Italia & Adelaja (2008) in their study on Farmers' Markets: Consumer Trends, Preferences, and Characteristics in US. Freedman et al., 2016 focussed study on choice of market channels by farmers in US. Bonenberg & Wei (2015) studied green building technologies focusing on construction models. Adek (2015) focused her study on implementation of Infrastructure projects in Mombasa County. Onyango, Wagah, Omondi & Obera (2013) focused their study on factors influencing Market Places Experiences from Kisumu City, Kenya.

Among the studies, Adek (2015) only focused her study on Infrastructure development of County Government projects In Mombasa. Azhar (2011) only evaluated correlation between costs and risks in construction models in Georgia, Further, Njunge (2015) only focused on monitoring, evaluation and implementation of market projects through development of policy framework while Freeman et al .,2016 only focused on the variety of farmers' market models in existence in US.

Likewise, Eadie (2013) concluded on utilization of Building Information Modeling project infrastructure. Similarly, Govindasamy, Italia & Adelaja (2008) in their study on Farmers' Markets only focused on Consumer Trends, Preferences, and Characteristics in USA.

The studies did not focus on how project beneficiary's selection, project infrastructure, quality management practices and stakeholder involvement influences the performance of Green Technology Market projects in Meru County. Therefore, the current study fills the gap by establishing how the project beneficiary's selection, project infrastructure, quality management practices and involvement of stakeholders influences the performance of Green Technology Market projects in Meru County.

Table 2.1 Summary of research Gap

Author/Year	Study's focus	Findings	Research Gaps	Focus of current study
Njung'e (2013)	The relocation of Kayole market to the sagana bus terminus area.	The study found that monitoring, evaluation and implementation of policy framework can influence relocation and performance of any market structure.	The study only focused on Relocation of Kayole market to Sagana Bus Terminus and did not consider the influencing factor in the project design on the performance of green technology market projects.	To demonstrate the influence of project design factors on the performance of green technology market in Meru County and how the factors can promote effective design of the market projects by Meru County.
Athar (2011)	Evaluated correlation between costs and risks in construction models in Georgia.	The study observed 64% output on investment and strong correlation between risk and cost in construction projects	The study was conducted and only Evaluated correlation between costs and risks in construction models in Georgia and the study did not consider the influencing factor in the project design on the performance of green technology market projects.	To demonstrate the influence of project design factors on the performance of green technology market in Meru County and how the factors can promote effective design of the market projects by Meru County.
Adak (2013)	How to implement Infrastructure projects in Kenya.	The study established that stakeholders' initiative influences the infrastructural projects success while 86.7% supported the Argument by saying yes. When asked to give their opinions, those who went for yes argued that stakeholders were significant because once they initiated ideas, they sources resources for them, allocated them resources and later on monitored and checked their progress.	Focused on how stakeholders sourced and determined resource allocation on performance of any infrastructural projects in Mombasa County. The study failed to consider influencing factors in the design of projects such as stakeholder involvement in the design stage of such green technology market projects.	To evaluate the extent to which the stakeholder involvement in project influences the performance of the green technology market project in Meru County.
Eadie (2013)	Utilization of Building Information Modeling project infrastructure.	The study concluded on utilization of Building Information Modeling project infrastructure with 92% return rate with a paltry 10% adoption of technology at management level.	The study only focused on BIM technology as a determinant used in the design and construction of projects	To evaluate the extent to which the stakeholder involvement in project influences the performance of the green technology market project in Meru County.
Onyango, Wajah, Omendi & Obara (2013)	Market Places Experiences from Kisumu City.	The research focused on market place development, allocation of space to traders and growth of towns due to market stalls.	The study did not deal with the role played by project beneficiaries selection on the performance of market projects and also focused on Urban planning and growth.	To investigate the extent to which the project beneficiary's selection influences performance of the green technology market projects in Meru County.
Kikwatha, 2017	The study findings on Project beneficiary selection process	The study findings on Project beneficiary selection indicated that project beneficiary's needs analysis is important in project beneficiary selection.	The study only focused on beneficiary selection design tools & methods The study did not deal with the role played by selected project beneficiaries on the performance of green technology market projects.	To investigate the extent to which the project beneficiary's selection influences performance of the green technology market projects in Meru County.

Gestinasamy, Iqbal & Adelaia (2008)	Consumer Trends and Preferences, in USA.	<p>The study observed 1% of participants in the survey obtained their groceries through advertisement, 92% had identified from farmers' markets, 33% express farm markets and finally 22% from other facilities.</p>	<p>The study did not consider the project infrastructure as a factor to influence the choice of marketing farm produce.</p>	<p>To examine the extent to which the project infrastructure influences the performance of the green technology market project in Meru County.</p>
Bananberg (2015)	Studied green building technologies focusing on construction models.	<p>The study observed that use of new technologies reduces damages, defects, cost, risk of rework through digital enable visualization technology that improves quality of work by experts.</p>	<p>The study only focused on technologies used by designers in putting up building structures.</p>	<p>To examine the extent to which the project infrastructure influences the performance of the green technology market project in Meru County.</p>

Table 2.1 Summary of research Gap

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

The chapter entails the synopsis of assorted methods that the researcher utilized in the study. This includes summary of research design, target population, sample size, sampling procedure, data collection instruments, validity, reliability of research instrument, data collection procedure, and finally data analysis.

3.2. Research design

The study utilized Descriptive survey design. The design was appropriate because it allows the researcher to collect data from comparatively huge cases within a certain time frame (Kothari, 2004). This design was suitable for the study because it enabled data collection from the sample on influences of project design factors on performance of the green technology market projects in Meru County.

3.3. Target Population

The study focused on influencing of project design factors on the performance of green technology market projects in Meru County. There were 38 Green Technology Market projects under Meru County Government. The target population for the study was 204 small scale Market traders, Community leaders, ministry of trade officers, small scale traders, meru county officials-ministry trade.

Table 3.1: Target Population

Categories	Population
Community leaders	60
Ministry of Trade officers	16
Small scale traders/Small holder farmers	110
Meru County officials- ministry of trade	18
Total	204

Source: Meru County Development Plan 2018/2022.

3.4. Sample Size and Sampling Procedure

This segment tackles the technique used to establish the study sample size where the data was collected. Furthermore, it outlines the sampling procedure utilized to identify subjects of the study sample as a sub-set of the aggregate population as per the representative target population under study.(Kothari, 2004).

3.4.1 Sample Size.

To attain the desired sample size, the Nassiuma (2000) formula was utilized since it is more precise than other formulas.

The computation was as shown;

$$n = \frac{N (cv^2)}{Cv^2 + (N-1) e^2}$$

Where n = sample size

N = population (204)

Cv = coefficient of variation, which was taken to be 0.6.

e = tolerance of desired level of confidence, which was taken to be 0.05 or 95% confidence level.

$$n = \frac{204 (0.6^2)}{0.6^2 + (204 -1) 0.05^2} = 84.61 \approx 85$$

The ration therefore was 85/204 =0.416. This was used across all the strata to obtain the sample per stratum.

Table 3.2: The Sampling Matrix

Categories	Population	Ratio	Sample
Community leaders	60	0.416	25
Ministry of Trade officers	16	0.416	7
Small scale traders	110	0.416	46
Meru County officials- ministry of trade	18	0.416	7
TOTALS	204		85

3.4.2. Sampling Procedure.

The stratified sampling was utilized to classify target population as per strata that included small scale Market traders, Community leaders, Ministry of trade officers, and Meru county officials-ministry of trade. Then from each of these strata, a representative sample was picked from it using simple random methods. In this case, the researcher randomly selected the respondents keeping in mind that every item in the strata had equal chances of being picked and included into the sample. This was to ensure that all people in the entire population access equal opportunity in the sample. This helped to eliminate the biasness.

The Cochran (1963) formula was appropriate to establish the exact sample at 204.

Comparative allotment was used to identify the sample size as per sub-county and further in wards. The systematic random sampling was appropriate to pick individuals from wards; respondents were identified at an interval.

Table 3.3: Sample Size Distribution Table.

Sub-county	Wards	Markets	Population-N	Sample size-n
Tigania East	5	3	12	$12 \times 0.416 = 4.99$
Tigania West	5	5	22	$22 \times 0.416 = 9.15$
Igembe North	5	4	16	$16 \times 0.416 = 6.67$
Igembe South	5	3	14	$14 \times 0.416 = 5.82$
North Imenti	5	2	10	$10 \times 0.416 = 4.16$
South Imenti	6	8	56	$56 \times 0.416 = 23.29$
Buuri	5	4	20	$20 \times 0.416 = 8.32$
Igembe Central	5	3	12	$12 \times 0.416 = 4.99$
Central Imenti	4	6	42	$42 \times 0.416 = 17.47$
TOTAL	45	38	204	$84.86 \approx 85$

The goal of this method was to attain a representative sample with minimal variations (Creswell & Creswell, 2017). Beside, the simple random sampling was utilized to pick participants according to stratum. The sampling ratio was; $\text{Sample size} = \frac{85}{204} = 0.416$

3.5 Research Instruments

Data collection was contacted for the study where the researcher used questionnaires to obtain information from the target population in Meru County, Kenya. The researcher used closed ended method mainly to conserve time by simplifying the analysis process. Secondary data were obtained from the journals, books and articles from libraries such as university of Nairobi library, Meru National Library, and electronic books & journals from University of Nairobi e-library.

3.5.1 Pilot Study

This refers to the process that is utilized to evaluate the correctness and validity of research questions utilized to collect the data by way of conducting a semi-data collection process (Kumar, 2005). In the current study, pilot testing was conducted among the small scale traders of green technology market projects in Meru County. The piloting of research instruments was to normalize them prior to real study. Pilot for the study was contacted by Nkubu Traders Youth Group of Imenti South sub-county and simple random sampling technique was employed.

The pilot study helped to establish the challenges that might be encountered in the study and if the research instruments will provide the expected data sample. The study applied simple random sampling to identify 22 subjects from the sample of 204 target population. Based on Kothari, 2014 it was within the 10% sample threshold for pilot testing of the research instrument. Thereafter, necessary corrections were made on the research instruments and finally adjustments to increase its reliability.

3.5.2 Validity of the Instruments

In reference to Frankel & Wallen, 2008, validity consists of suitability, exactness, and openness of the explicit inferences identified under research. The areas the study validated included content-related validity which included proper formatting of contents of the research instrument, Criterion-related where relationship between scores were obtained correctly, and finally Construct validity where the scores conformed to the theoretical propositions. The criterion validity was determined by relationship between the scores and the research instrument so as to obtain correlation coefficient of test scores and measure of future performance of the study.

The construct validity was determined based on characteristics under measure and their degree of conformity to test scores of the research instruments. However, the different types of validity were evaluated by contemporaries and experts in research studies by considering the methodology to establish the level of coverage of study objectives. The validity tested on order of questions, accuracy, and if the respondents answered questions similarly or if the questions met the intended objective. They then clarified on issues to be corrected and considered to fine tune the research instrument.

3.5.3 Reliability of the Instruments

To ensure that similar results would be obtained if the study would be conducted for a second or even a third time, a pilot study comprising of 22 members was carried out before the main data collection process was done. The subjects were 22 corresponding to 10% of the sample that was utilized in the study thereby they were comparable to the 10% mark that is recommended for pilot testing. Normally, a Cronbach alpha that is above 0.7 was considered to be adequate (Song et al., 2014). The Cronbachs alpha (α) that was utilized in the study was computed as follows:

$$A = \frac{k}{k-1} \times [1 - \frac{\sum (S^2)}{\sum S^2 \text{sum}}]$$

Where:

α = Cronbachs alpha

k = Number of responses

$\sum (S^2)$ = Variance of individual items summed up

$\sum S^2 \text{sum}$ = Variance of summed up scores

The researcher used split half method to establish reliability, consistency of research instrument incase its used at different time with identical measurement.

This measured the internal consistency by determining whether questions measured similar construct, content and criterion.

Table 3. 4: Reliability Analysis

Scale	Cronbach's Alpha
Project Infrastructure	0.836
Stakeholders' involvement	0.925
Project Beneficiary's selection	0.901
Quality Management Practices	0.891

Table 3.4 depicts that Stakeholders' involvement had a reliability of ($\alpha= 0.925$), which was the highest. This was followed by Project Beneficiary's selection ($\alpha=0.901$), Quality Management Practices had ($\alpha=0.891$) while Project Infrastructure ($\alpha=0.836$). Since these values were over 0.7, then they were considered to be appropriate for the study.

3.6. Data Collection Procedure

The investigator obtained an introductory letter from the University of Nairobi to apply for a research permit from NACOSTI. The researcher then booked an appointment with respondents at the county government for data collection. The letter was included on questionnaires while the county government officials and traders were notified regarding the data collection activity one

week before. The questionnaires were issued to the 85 samples out of 204 target population and filled questionnaire were picked from respondents in 14 days time.

3.7. Data Analysis Techniques.

The study engaged descriptive statistical methods to analyze data. Both qualitative and quantitative data collected were objectively analyzed based on research questions under study by means of descriptive statistics which included frequencies and percentages to determine influences of project design factors on performance of the green technology market projects in Meru County, Kenya.

The data was primary alienated as topics and sub-topics before being analyzed. Data analysis was done by the use of SPSS 25.0. The data was then presented as tables to fasten the interpretation and understanding.

The multiple regression analysis was utilized to carry out the inferential statistics. The analysis was concerned about the influence linking dependent and independent variables. The focus of using this method was to determine the extent to which independent variables could be utilized to predict the outcomes of the dependent variable. The multiple regression analysis was done as per below model.

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

Where: -

Y= Performance of Green Technology Market Projects in Meru County, Kenya.

β_0 =constant

$\beta_1, \beta_2, \beta_3$ and β_4 = Regression coefficients

X_1 = Project Infrastructure

X_2 = Stakeholders involvement

X_3 = Project beneficiary's selection

X_4 = Quality Management Practices

ε =Error Term

3.8. Ethical Considerations

The researcher guaranteed the respondents of the discretion of the information they provided during the study. The respondents were open-minded on the rationale of the study, which was purely limited to academic use. This was to facilitate them to grant the relevant information devoid of any uncertainties. Solitude and decorum of the respondents was still vital during the research. Background information of the respondents was not uncovered and was assigned codes as a substitute.

3.9. Operational definitions of variables

This segment consists of the study objectives, indicators of the dependent variable and the indicators of the independent variables and the measuring scales with method of analysis.

Table 3.5: Operational Definition of Variables

Objectives	Variables	Indicators	Data collection tools	Measure ment scale	Types of analysis
To examine the extent to which the project infrastructure influences the performance of the green technology market project by Meru county.	Project Infrastructure	<ul style="list-style-type: none"> • Accessibility to Infrastructure • Quality of infrastructure • Nature of infrastructure 	Questionnaire	Ordinal scale	Descriptive
To investigate the extent to which the project beneficiary's selection influences the performance of the green technology market projects by Meru County.	Project beneficiary's selection	<ul style="list-style-type: none"> • Community ownership • Participation in project execution. • Role in resource allocation 	Questionnaire	Ordinal scale	Descriptive
To evaluate the extent to which the stakeholder involvement in project influences the performance of the green technology	Stakeholders' involvement	<ul style="list-style-type: none"> • Level of contribution • Participation in decision making • Accountability of project 	Questionnaire	Ordinal scale	Descriptive

market project in Meru County.		activities			
To investigate the extent to which the project quality management practices influences the performance of the green technology market project in Meru County.	Quality Management Practices	<ul style="list-style-type: none"> • Accessibility to quality services. • Knowledge on quality aspects. • Training on quality certification 	Questionnaire	Ordinal scale	Descriptive

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

The chapter avails the findings attained from the questionnaires. It starts by giving the responses rate and reliability analysis before giving backdrop information for the respondents and thereafter the findings for influencing factors on the performance of Green Technology Market projects in Meru County, Kenya. Finally, regression analysis was conducted and findings presented in Tables.

4.1.1 Return Rate

Table 4.1 depicts, the questionnaires that the researcher administered were 85 out of which only 60 were fully filled and returned. This was a 70.6 % return rate that was within a minimum rate of 50% recommended by Sproul (2011). The no-response of 25 participants was attributed to failure by respondents to submit the online questionnaire form and thus a non-return rate of 29.4%.

Table 4.1: Return Rate

	No. of Respondents	Return Rate
Response	60	70.6
Non-response	25	29.4
Total	85	100.0

4.1.2 Respondents' Gender

The respondents were asked to provide their gender orientations and results are in Table 4.2.

Table 4. 2: Respondents' Gender

	Frequency	Percent
Male	21	35.0
Female	39	65.0
Total	60	100.0

The findings prove that 65.0% of the respondents were females whereas 35.0% were males. This depicts that a larger percentage of females participated in the study in relationship to a relatively smaller number of males. In spite of this slight discrepancy, there was no form of gender bias throughout data collection process.

4.1.3 Respondents' Age Bracket

The respondents were further asked to indicate their age bracket and results are in Table 4.3.

Table 4. 3: Age of the Respondents

	Frequency	Percent
> 25 years	19	31.7
25 - 35 years	28	46.7
36 - 45 years	4	6.7
<45 years	9	15.0
Total	60	100.0

Table 4.3 depicts, most of the respondents (46.7%) were between 25 and 35 years, 31.7% of them were below 25 years, 15.0 % were above 45 years whereas only 6.7% of them were between 36 and 45 years. The respondents were not normally distributed; they were of reasonable age to provide relevant information.

4.1.4 Levels of Education

The respondents provided their utmost levels of education and results are in Table 4.4.

Table 4. 4: Highest Level of Education of the Respondents

	Frequency	Percent
Post Graduate	7	11.7
Undergraduate	16	26.7
Diploma	8	13.3
Certificate	23	38.3
Any other	6	10.0
Total	60	100.0

The findings divulge that 38.3% of the respondents had attained a certificate, 26.7% indicated that they had attained undergraduate level of education, 13.3% had indicated they had reached the Diploma level, 11.7% had reached a post graduate level while 10.0% had attained other form of education. This implied that all of them were educated even though at different levels. From this

information, it was concluded that they understood the language that was utilized to collect the data thereby they provided reliable information on subject under study.

4.1.5 Years involved in Green Technology Market projects in Meru County, Kenya

Besides the above, the respondents also provided the number of years they were involved in Green Technology Market projects in Meru County, Kenya. Table 4.5 presents their replies.

Table 4. 5: Years Involved in Green Technology Market projects in Meru County, Kenya

	Frequency	Percent
Below 1 year	1	1.7
1-2 years	15	25.0
3-4 years	22	36.7
Above 5 years	22	36.7
Total	60	100.0

The findings disclosed that 36.7% of them were involved in Green Technology Market projects in Meru County, Kenya for a period of 3 -4 years, 36.7% indicated for over 5 years, 25.0% indicated for a period of 1-2 years while 1.7% indicated for less than 1 year. This implied that most of them had been involved with Green Technology Market projects in Meru County, Kenya for a long period; hence were able to provide information that could be relied upon in the study.

4.2 Performance of Green Technology Market projects in Meru County, Kenya

The research sought to examine the performance trend of Green Technology Market projects in Meru County, Kenya for a period of five years. The respondents were asked to use a Likert scale of 1 to 5, where 1=Strongly disagree to 5=Strongly agree The results were as shown on Table 4.6.

Table 4. 6: Performance of Green Technology Market projects in Meru County, Kenya	Mean	Std. Dev.
Years of operation has increased	4.12	1.027
Projects operate on schedule	3.70	1.280
Operations behind schedule are funded again	3.90	.986
Level of performance of projects is high	3.63	1.104
Work performed is of high quality	3.48	1.033
Traders informed on performance of projects	3.13	1.334
Number of traders has increased	3.55	1.346
Traders participate in project design	2.95	1.346
Diverse commodity at the market	3.35	1.295
Composite Mean	3.531	1.195

The respondents agreed that the Years of operation had increased as illustrated by a mean score of 4.12, Operations behind schedule are funded again was high as depicted by a mean score of 3.90, Projects Operate on schedule had improved as illustrated by a mean score of 3.70, Level of performance of projects is high had improved with mean score of 3.63, Number of traders had increased as illustrated by a mean score of 3.55, Work performed is of high quality had increased by 3.48, Diverse commodity at the market had increased as shown by a mean score of 3.32, Traders informed on performance of projects had improved as illustrated by a mean score of 3.13 and Traders participate in project design has increased as illustrated by a mean score of 2.95 for the last five years. The Composite Mean was 3.53 with a standard deviation of 1.195 implied that the respondents agreed the performance of the Green Technology Market Projects in Meru County, Kenya had improved for the last five years.

4.3 Project Infrastructure

The study further sought to establish the way project infrastructure influenced the performance of the Green Technology Market Projects in Meru County, Kenya. The researcher required the respondents to specify the extent to which they agreed with certain statements concerning the influence of project infrastructure on the performance of the Green Technology Market Projects in Meru County, Kenya using a Likert scale of 1 to 5, where 1=No Extent to 5= Very Great Extent. The results are presented on Table 4.7.

Table 4. 7 Extent of Influence of project infrastructure aspects on Performance of the Green Technology Market Projects in Meru County, Kenya

	Mean	Std. Dev.
Infrastructure facilities are accessible to traders	3.65	1.233
Traders access high quality infrastructure	3.47	1.282
Traders are sharing most facilities	4.02	1.000
Infrastructure facilities are diverse in nature	3.43	1.140
Traders have a register for available equipments	3.23	1.423
Infrastructures adequately meet the needs of traders	3.22	1.209
Market stalls are designed in a systematic manner	3.23	1.345
Traders are trained on use of facilities	2.93	1.364
Traders are updated on changes in Technology	2.63	1.340
Composite Mean	3.312	1.260

From the results, the respondents agreed to a great extent that: Traders are sharing most facilities which lead to high performance of Green Technology Market Projects in Meru County, Kenya as shown by a mean of 4.02; Traders have access to Infrastructure facilities at the market as shown by a mean of 3.65; Traders access high quality infrastructure as shown by a mean of 3.47; the available infrastructure facilities are diverse in nature as illustrated by a mean of 3.43; Traders have a register for available equipments as evidenced by a mean score of 3.23 with similar average score showing Market stalls are designed in a systematic manner at the markets; the available infrastructure facilities adequately meet the needs of traders at the market with a mean of 3.22; Traders are also poorly trained with knowledge on how to use facilities at the market as illustrated by a mean of 2.93 and finally traders have a low access to timely updates on changes in technology on facilities at the markets as evidenced by a mean score of 2.63. The Composite Mean for the project infrastructure was 3.312 and a standard deviation of 1.260 which implied that the respondents agreed that project infrastructure influenced the performance of Green Technology Market Projects in Meru County, Kenya.

4.4 Stakeholders' Involvement

The research aimed at determining how stakeholders' involvement influenced the performance of Green Technology Market Projects in Meru County, Kenya. Table 4.8 displays the responses on the degree to which the respondents concurred with statements concerning the influence of stakeholders' involvement in projects on performance of Green Technology Market Projects in Meru County, Kenya. The respondents used a Likert scale of 1 to 5, where 1=No Extent to 5=Very Great Extent.

Table 4. 8 Extent of Influence of Stakeholders’ involvement in projects on Performance of Green Technology Market Projects in Meru County, Kenya.

	Mean	Std. Dev.
There was fairness in identification of project committee members	3.70	1.319
The projects committee includes local community leaders	3.73	1.219
There was adequate training of stakeholders	3.35	1.388
All the stakeholder participate in decision making	3.13	1.443
Decisions comprises of views from all stakeholders	3.07	1.326
Stakeholders account for all the expenditure in the project	2.83	1.440
Stakeholders put their resources in projects	2.78	1.451
Stakeholders give timely feedback on project's performance	2.73	1.376
There is fair salary payments to stakeholders	2.92	1.344
Composite Mean	3.137	1.367

It’s clearly evident, the respondents concurred that local community leaders formed part of the project committee as presented by a mean of 3.73; there is fairness in identification of project committee members as shown by a mean of 3.70. The stakeholders’ were well trained on project design as illustrated by a mean of 3.35; All the stakeholder participate in decision making as per the mean of 3.13; it’s also clear that decisions comprised of views from all stakeholders according to a mean score of 3.07; Respondents also agreed that salary payments to stakeholders was fair as evidenced by a mean score of 2.92; it’s important to note that Stakeholders account for all the expenditure in the project with respect to a mean score of 2.78; Furthermore, they agreed, but to a low extent that Stakeholders give timely feedback on project's performance as depicted by a mean of 2.73. The Composite Mean of 3.137, standard deviation of 1.367 implied that the respondents agreed that the stakeholders’ involvement in projects influences the performance of Green Technology Market Projects in Meru County, Kenya.

4.5 Project Beneficiary’s Selection

The study sought to investigate how the projects beneficiary’s selection influenced the performance of Green Technology Market Projects in Meru County, Kenya. The researcher asked respondents to specify using a Likert scale of 1 to 5, where 1=No Extent to 5= Very Great Extent, the extent to which they agreed with the statements concerning the influence of projects beneficiary’s selection on performance of Green Technology Market Projects in Meru County, Kenya. Table 4.9 shows the results.

Table 4. 9 Extent of Influence of Project Beneficiary’s Selection aspects on Performance of Green Technology Market Projects in Meru County, Kenya.

	Mean	Std. Dev.
There was fairness in selection of project beneficiary's	3.50	1.384
The local's supplied labor needed for the projects	3.82	1.200
The selected projects beneficiary's includes local traders	3.78	1.027
Tenders were awarded to the local community suppliers	3.12	1.263
The beneficiary's participate in decision making	3.07	1.287
There was need assessment based on community priority	3.05	1.227
The community own the project	2.93	1.436
There is an equal allocation of resources to the entire beneficiary's	2.73	1.401
The project beneficiary's form the management team	2.55	1.395
Composite Mean	3.172	1.291

As per the findings, the respondents agreed to a very great extent that the local's supplied labor needed for the projects as depicted by a mean score of 3.82. They also agreed to a great extent that the selected projects beneficiary's included local traders as illustrated by a mean score of 3.78, they agreed that the project beneficiary’s selection process was fair as shown by a mean score of 3.50, the respondents also agreed that tenders were awarded to local community suppliers as evidenced by a mean score of 3.12, the beneficiary's participate in decision making as depicted by a mean score of 3.07, the respondents also agreed that the needs assessment was done based on community priorities as per a mean score of 3.05, to a smaller extent the respondents agreed that community own the projects with a mean score of 2.93, also they agreed to a lower extent that allocation of resources to beneficiary’s was equal as per a mean score of 2.73 and finally to a least extent they agreed that the project beneficiary's form the management team according to a mean score of 2.55. The Composite Mean of 3.172, standard deviation of 1.291 implied that the respondents agreed that projects beneficiary’s selection influence the performance of Green Technology Market Projects in Meru County, Kenya.

4.6 Quality Management Practices

The research sought to evaluate the influence that Quality Management Practices had on the performance of Green Technology Market Projects in Meru County, Kenya. Accordingly, the researcher requested participants to specify using a Likert scale of 1 to 5, where 1=No Extent to 5= Very Great Extent, the degree to which they concurred with statements concerning influence of quality management practices on the performance of Green Technology Market Projects in Meru County, Kenya. Table 4.10 depicts the responses.

Table 4. 10 Extent of Influence of Quality Management Practices on the performance of Green Technology Market Projects in Meru County, Kenya

	Mean	Std. Dev.
Traders have access to quality services at the market	3.57	1.280
Designed market projects conform to quality standards	3.42	1.253
Quality of services improve with time	3.47	1.268
Quality assurance officers are accessible	3.20	1.338
Traders are satisfied with price of quality of service	3.03	1.275
Traders have knowledge on quality	3.05	1.213
Items are supplied by many suppliers	3.32	1.255
All equipments have quality certification mark	2.87	1.228
Traders are adequately trained on quality certification standards	2.70	1.306
Composite Mean	3.181	1.273

Respondents agreed to a very great extent that Traders have access to quality services at the market as illustrated by a mean score of 3.57. The respondents also agreed that Quality of services improve with time as evidenced by a mean score of 4.47. In addition, they agreed that Designed market projects conform to quality standards as illustrated by a mean score of 3.42. The respondents also agreed to a great extent that Items supplied by many suppliers to provide materials needed to the projects as illustrated by a mean score of 3.32, the Quality assurance officers are accessible during the project execution as illustrated by a mean score of 3.20, respondents also agreed although to a lower extent that Traders have knowledge on quality of services and goods supplied during project design as illustrated by a mean score of 3.05, the respondents agreed although to a lower extent that Traders are satisfied with price of quality of service as depicted by a mean score of 3.03. The respondents also agreed to a least extent that all equipments at the market stalls have quality certification mark as evidenced by a mean score of 2.87 and finally the respondents agreed that Traders are adequately trained on quality certification standards and procedures of certification with the least score of 2.70. The Composite Mean of 3.181 and standard deviation of 1.273 imply that the participants agreed that Quality Management Practices had influence on the performance of Green Technology Market Projects in Meru County, Kenya.

4.7 Hypotheses Testing

This was done using regression analysis to determine whether there is a significant influence between Project infrastructure, stakeholders' involvement, project beneficiary's selection and quality management practices as the independent variables and the dependent variable, as the performance of Green Technology Market Projects in Meru County, Kenya.

4.7.1 Project infrastructure and Performance of Green Technology Market Projects in Meru County, Kenya.

The simple regression model was used to test the hypothesis to gratify the objective one.

H₁: There is no significant influence between project infrastructure and the performance of the green technology market project in Meru County, Kenya.

Regression Model

The null hypothesis was tested using the below mathematical model:

Performance of Green Technology Market Projects in Meru County, Kenya = f (Project infrastructure)

$$Y = f (X_1, \varepsilon)$$

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where

Y = Performance of Green Technology Market Projects in Meru County, Kenya

X₁ = Project infrastructure

β₀ = Constant term

β₁ = Beta coefficient

ε = Error term

Data was analyzed and the regression results for establishing the influence of Project infrastructure on the Performance of Green Technology Market Projects in Meru County, Kenya was presented in Table 4.1, 4.12 and 4.13.

Table 4. 11 Model Summary for Project infrastructure and Performance of Green Technology Market Projects in Meru County, Kenya.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.733	0.554	0.303	0.979

These study results depict the manner in which the model fits the data into the equation. The adjusted R²= 0.303 provides the predictive power of the model and it implies that it can be utilized to provide about 30.3% variations in the Performance of Green Technology Market Projects in Meru County, Kenya. This indicates that project infrastructure has a strong influence on Performance of Green Technology Market Projects in Meru County, Kenya.

Table 4. 12 Analysis of Variance (ANOVA) for Project infrastructure and Performance of Green Technology Market Projects in Meru County, Kenya.

Model	Sum of Squares	Df	Mean Square	F	Sign.
Regression	189.121	1	21.013	28.337	.087
Residual	143.339	60	8.958		
Total	332.462	61			

In Table 4.12, the F-calculated is 28.337 and it is greater than the F-critical (4.001) and $0.05 < p > 0.087$ indicated that there was a very statistical insignificant relationship between project infrastructure and the performance of Green Technology Market Projects in Meru County, Kenya, implying that the model is significant. In this case, we do not reject the null hypothesis and instead we accept the alternative hypothesis, there is significant influence between project infrastructure and the performance of the green technology market project in Meru County, Kenya. Therefore, it was concluded that there is significant influence between project infrastructure and performance of Green Technology Market Projects in Meru County, Kenya.

Table 4. 13 Regression Coefficient for Project infrastructure and Performance of Green Technology Market Projects in Meru County, Kenya.

	Unstandardized		Standardized	T	Sig
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	1.845	1.523		1.261	.000
Project infrastructure	0.059	0.303	0.067	0.227	.467

Table 4.14 shows that if all the independent variables would be held constant at zero, then the performance of Green Technology Market Projects in Meru County, Kenya would be 0.067. Also, a unit increase in project infrastructure would lead to 0.067 increases in the performance of Green Technology Market Projects in Meru County, Kenya. The variable was insignificant since $p=0.467$ is more than 0.05; hence, alternative hypothesis accepted that there was significant influence between project infrastructure and performance of Green Technology Market Projects in Meru County, Kenya, was accepted.

4.7.2 Stakeholders' involvement and Performance of Green Technology Market Projects in Meru County, Kenya

The simple regression model was used to test the hypothesis to gratify the objective two

H₂: There is no significant influence between stakeholders' involvement and the performance of the Green Technology Market project in Meru County, Kenya

Regression Model

The null hypothesis was tested using the below mathematical model.

Performance of Green Technology Market project in Meru County, Kenya

$$= f(\text{Stakeholders involvement})$$

$$Y = f(X_2, \varepsilon)$$

$$Y = \beta_0 + \beta_2 X_2 + \varepsilon$$

Where

Y = Performance of Green Technology Market project in Meru County, Kenya

X₂ = Stakeholders' involvement

β₀ = Constant term

β₂ = Beta coefficient

ε = Error term

Data was analyzed and the regression results for establishing the influence of Stakeholders involvement on the performance of Green Technology Market project in Meru County, Kenya was presented in Table 4.14, 4.15 and 4.16.

Table 4. 14 Model Summary for Stakeholders' involvement and Performance of Green Technology Market Projects in Meru County, Kenya

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.503	0.269	0.137	1.105

These study results depict the manner in which the model fits the data into the equation. The adjusted R² = 0.137 provides the predictive power of the model and it implies that it can be utilized to provide about 13.7% variations in performance of Green Technology Market project in Meru County, Kenya. This indicates that Stakeholders' involvement has a strong influence on the performance of Green Technology Market project in Meru County, Kenya.

Table 4. 15 Analysis of Variance (ANOVA) for Stakeholders' involvement and Performance of Green Technology Market Projects in Meru County, Kenya

Model	Sum of Squares	Df	Mean Square	F	Sign.
Regression	205.394	1	22.520	20.292	.240
Residual	563.324	60	1.252		
Total	768.715	61			

From the results, the F-calculated is 20.292 and it is greater than the F-critical (4.001) and 0.05 < p > 0.240 indicated that there was a very statistical insignificant influence between stakeholders' involvement and the performance of Green Technology Market project in Meru County, Kenya, implying that the model is significant. Therefore, we do not reject the null hypothesis and instead

alternative hypothesis was accepted that there is significant influence between stakeholders' involvement and the performance of the Green Technology Market project in Meru County, Kenya. Therefore, it was concluded that there is significant influence between stakeholders' involvement and performance of Green Technology Market Projects in Meru County, Kenya.

Table 4. 16 Regression Coefficient for Stakeholders' involvement and Performance of Green Technology Market Projects in Meru County, Kenya

	Unstandardized		Standardized	T	Sig
	Coefficients		Coefficients		
	B	Std. Error	Beta		
(Constant)	2.409	0.523		4.747	0.002
Stakeholders' involvement	0.040	0.191	0.046	0.165	0.504

Moreover, the study depicted that if all other variables would be held constant, then a unit change in the score of Stakeholders' involvement would change the performance of Green Technology Market Projects in Meru County, Kenya by 0.046. The variable was insignificant since $p=0.504$ is more than 0.05; hence, alternative hypothesis presumed that there was significant influence between stakeholders' involvement and performance of Green Technology Market Projects in Meru County, Kenya, was accepted.

4.7.3 Beneficiary's Selection and Performance of Green Technology Market Projects in Meru County, Kenya

The simple regression model was used to test the hypothesis to gratify the objective three.

H₃: There is no significant influence between project beneficiary's selection and the performance of the green technology market projects in Meru County, Kenya.

Regression Model

The null hypothesis was tested using the below mathematical model:

Performance of Green Technology Market Projects in Meru County, Kenya

$$= f(\text{Beneficiary's Selection})$$

$$Y = f(X_3, \epsilon)$$

$$Y = \beta_0 + \beta_3 X_3 + \epsilon$$

Where

Y = Performance of Green Technology Market Projects in Meru County, Kenya

X₃ = Beneficiary's Selection

β_0 = Constant term

β_3 = Beta coefficient

ε = Error term

Data was analyzed and the regression results for investigating the influence of Beneficiary's Selection on the performance of Green Technology Market Projects in Meru County, Kenya was presented in Table 4.17, 4.18 and 4.19.

Table 4. 17 Model Summary for Beneficiary's Selection and Performance of Green Technology Market Projects in Meru County, Kenya

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.507	0.271	0.161	1.105

The findings in Table 4.17 show the manner in which the model fits the data into the equation. The adjusted $R^2 = 0.161$ provides the predictive power of the model and it implies that it can be utilized to provide about 16.1% variations in performance of Green Technology Market Projects in Meru County, Kenya. This indicates that Beneficiary's Selection has a strong influence on performance of Green Technology Market Projects in Meru County, Kenya.

Table 4. 18 Analysis of Variance (ANOVA) for Beneficiary's Selection and Performance of Green Technology Market Projects in Meru County, Kenya

Model	Sum of Squares	Df	Mean Square	F	Sign.
Regression	205.938	1	22.877	20.600	.257
Residual	562.814	60	1.251		
Total	768.814	61			

From the results, the F-calculated is 20.600 and it is greater than the F-critical (4.001) and $0.05 < p > 0.257$ indicated that there was a very statistical insignificant influence between project beneficiary's selection and performance of Green Technology Market Projects in Meru County, Kenya, implying that the model is significant. In this case, we do not reject the null hypothesis instead we accept the alternative hypothesis that there is significant influence between project beneficiary's selection and the performance of the green technology market projects in Meru County, Kenya. Therefore, it was concluded that there is significant influence between beneficiary's selection and performance of Green Technology Market Projects in Meru County, Kenya.

Table 4. 19 Regression Coefficient for Beneficiary’s Selection and Performance of Green Technology Market Projects in Meru County, Kenya

	Unstandardized Coefficients		Standardized Coefficients	T	Sig
	B	Std. Error	Beta		
(Constant)	2.288	0.571		4.180	0.011
Beneficiary’s Selection	0.042	0.205	0.050	0.225	0.477

According to the Table 4.19 above if all the independent variables would be held constant at zero, and then the performance of Green Technology Market Projects in Meru County, Kenya would be 0.050. Also, a unit increase in project Beneficiary’s Selection would lead to 0.050 increases in the performance of Green Technology Market Projects in Meru County, Kenya. The variable was significant since $p=0.477$ is more than 0.05; hence, alternative hypothesis presumed that there was significant influence between project infrastructure and performance of Green Technology Market Projects in Meru County, Kenya, was accepted.

4.7.4 Quality Management Practices and Performance of Green Technology Market Projects in Meru County, Kenya.

The simple regression model was used to test the hypothesis to gratify the objective four.

H₄: There is no significant influence between Quality Management Practices and the performance of the green technology market project in Meru County, Kenya.

Regression Model

The null hypothesis was tested using the below mathematical model:

Performance of Green Technology Market Projects in Meru County, Kenya

$$= f(\text{Quality Management Practices})$$

$$Y = f(X_1, \varepsilon)$$

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where

Y = Performance of Green Technology Market Projects in Meru County, Kenya

X₁ = Quality Management Practices

β_0 = Constant term

β_1 = Beta coefficient

ε = Error term

Data was analyzed and the regression results for establishing the influence of Quality Management Practices on the Performance of Green Technology Market Projects in Meru County, Kenya was presented in Table 4.20, 4.21 and 4.22.

Table 4. 20 Model Summary for Quality Management Practices and Performance of Green Technology Market Projects in Meru County, Kenya.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.477	0.231	0.092	1.138

These study results depict the manner in which the model fits the data into the equation. The adjusted $R^2 = 0.092$ provides the predictive power of the model and it implies that it can be utilized to provide about 9.2% variations in the Performance of Green Technology Market Projects in Meru County, Kenya. This indicates that Quality Management Practices has a strong influence on Performance of Green Technology Market Projects in Meru County, Kenya.

Table 4. 21 Analysis of Variance (ANOVA) for Quality Management Practices and Performance of Green Technology Market Projects in Meru County, Kenya.

Model	Sum of Squares	Df	Mean Square	F	Sign.
Regression	178.374	1	19.820	15.329	.174
Residual	590.343	60	11.806		
Total	768.115	61			

In Table 4.21, the F-calculated is 15.329 and it is greater than the F-critical (4.001) and $0.05 < p > 0.174$ indicated that there was a very statistical insignificant influence between Quality Management Practices and the performance of Green Technology Market Projects in Meru County, Kenya, implying that the model is significant. In this case, we do not reject the null hypothesis instead we accepted the alternative hypothesis that there is significant influence between Quality Management Practices and the performance of the green technology market project in Meru County, Kenya. Therefore, it was concluded that there is significant influence between Quality Management Practices and performance of Green Technology Market Projects in Meru County, Kenya.

Table 4. 22 Regression Coefficient for Quality Management Practices and Performance of Green Technology Market Projects in Meru County, Kenya.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig
	B	Std. Error	Beta		
(Constant)	2.616	0.594		4.549	.001
Quality Management Practices	0.038	0.204	0.040	0.170	.497

Table 4.22 shows that if all the independent variables would be held constant at zero, then the performance of Green Technology Market Projects in Meru County, Kenya would be 0.040. Also, a unit increase in Quality Management Practices would lead to 0.040 increases in the performance of Green Technology Market Projects in Meru County, Kenya. The variable was

significant since $p=0.497$ is more than 0.05; hence, alternative hypothesis that There is significant influence between Quality Management Practices and the performance of the green technology market project in Meru County, Kenya presumed that there was significant influence and was accepted.

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter summarizes the findings before discussing them and concluding the study by way of recommending the way forward from the findings. Both recommendations and conclusion are founded on study's objectives.

5.2 Summary of the Findings

Research objective one was to establish the way project infrastructure influenced the performance of the Green Technology Market Projects in Meru County, Kenya. The study agreed to a greater extent that traders were sharing most facilities at the market which significantly influenced the performance of Green Technology Market Projects in Meru County, Kenya. The study also found to a moderate extent that traders accessed quality infrastructure facilities and that they had direct access to facilities at the market. The study also established that it was to a low extent that traders lacked timely updates on changes in Technology regarding new infrastructure facilities. The study also noted with low extent for the need to conduct trainings on how to use infrastructure facilities and access to information. Therefore, Project infrastructure is a cornerstone in design of Green Technology Market Projects.

The research objective two aimed at determining how stakeholders' involvement influenced the performance of Green Technology Market Projects in Meru County, Kenya. The research found that to a very great extent local community leaders were part of project committee member and their level of contribution was high due to fair stakeholder identification process, proper training on their role through workshops, seminars thus adequate knowledge on project design process. The study also found to a great extent that the stakeholders made valid views considered for decisions made in the project design stage. The study found that to a low extent the stakeholders give timely feedback to project beneficiaries and the community at large on progress of project design. The study also notes with low extent that timely feedback allows the stakeholders to account for project expenditure thus shading light on accountability and resource allocation to all benefactors in the project. The study also found out on a lower extent that salary payment to stakeholders was not clear if they access any remuneration and also the modalities on how the stakeholders can channel their resources in the project were not adequate.

The study sought to investigate how the projects beneficiary's selection influenced the performance of Green Technology Market Projects in Meru County, Kenya. The respondents agreed to a greater extent that locals supplied labor to the project design process thus enhancing the project ownership. The study also found out that project beneficiary's were local traders who were identified in a fair selection process, thus traders were at the epicenter of decision making and their views were incorporated in the project design committee. The study also found out to a

moderate extent that tenders were awarded to local suppliers who supplied goods and services in the project. The study found that a moderate extent that resource allocation was fairly shared among benefactors. The study also found to a lower extent that the needs assessment ought to prioritize community needs and priorities in the design of the projects.

Research objective four was to establish the way Quality Management Practices influenced the performance of the Green Technology Market Projects in Meru County, Kenya. The study found out to a greater extent traders access quality services at the market and this was as a result of devolved functions that has more workers cleaning and working at the market. The study also found out on a greater extent that quality of services was noted to have increased with time for the last five years. The study also found out to a moderate extent that the quality assurance officers were accessible during the project design and execution thus incorporating all stakeholders in the certification process. The study also notes that Green Technology Market projects are designed with conformity to quality standards and that materials are supplied by many suppliers thus increased diversity of quality aspects as per the moderate agreement by the respondents. To a least extent the study agreed that not all equipment at the market have quality certification mark.

Additionally, the study found that the number of traders at the market had increased, level of performance of Green Technology Market Projects was high, Projects operating on schedule had improved significantly, Operations behind schedule was funded again on time, Quality of designs had improved tremendously, Diversity of fresh and Green Produce at the market has increased and years of operation had increased for the last five years.

5.3 Discussion of the Findings

This part provides the findings in relative to the reviewed literature.

5.3.1 Project Infrastructure and Performance of Green Technology Market Projects in Meru County, Kenya.

Research objective was to establish the way project infrastructure influenced the performance of the Green Technology Market Projects in Meru County, Kenya. Based on the literature, three indicators were considered for project infrastructure; Accessibility to Infrastructure, Quality of infrastructure and Nature of infrastructure. Kikwatha, 2017 deliberated on association between project resources and economic growth and observed a significant correlation. Descriptive statistics showed that respondents were moderate that project infrastructure influenced the performance of the Green Technology Market Projects in Meru County, Kenya while inferential statistics indicated a positive relationship between the project infrastructure and the performance of Green Technology market projects in Meru County, Kenya. The study agrees with work by Kikwatha, 2017 clarified that spike in infrastructure capacity is a precondition to growing a healthy and competitive project in all sectors of the economy. The positive correlation indicates that traders need access to quality and diverse infrastructure facilities such as Green Lighting

facilities that include solar panels & bulbs, Waste and Sewerage facilities for reducing pollutions, Litter bins with label for waste segregation, Refrigeration facilities for preservation of Green fresh produce, Adequate abolition facilities, Adequate supply of Water, Proper parking facilities with Green landscape designs and finally humble pathways within the market structure to promote Green Technology. This agrees with Kikwatha, 2017 who posits that project Infrastructure is a key consideration and project donor ought to rally together all the paraphernalia in terms of resources to develop any project. The study also found that traders accessed diverse infrastructure facilities and that there was need for more facilities to cater for their priorities at the market and study by Kikwatha, 2017 asserts that project management requires specialized tools and infrastructure.

5.3.2 Stakeholders' involvement and Performance of Green Technology Market Projects in Meru County, Kenya

The research aimed at determining how stakeholders' involvement influenced the performance of Green Technology Market Projects in Meru County, Kenya. Based on the literature, three indicators were considered for stakeholders' involvement; Level of contribution, Participation in Decision Making, and finally Accountability of project activities. The study found on a greater extent that stakeholders included the community leaders and Newcombe (2013) postulated that construction projects have, by their nature, diverse stakeholders who play various roles and responsibilities in a project's delivery which is directly proportional to project outcome. Also, the study found on a greater extent that stakeholder identification was a fair process and the stakeholders participated in decision making in the design of projects. Further, it was found that to a moderate extent decision made involved views from all the stakeholders in the project committee and according to Botchway (2001) postulated that stake keepers are autonomous regulators who include the public and private agencies with no interest in the project but have solemn authority in project execution.

5.3.3 Beneficiary's Selection and Performance of Green Technology Market Projects in Meru County, Kenya.

The study aimed at investigating how the projects beneficiary's selection influenced the performance of Green Technology Market Projects in Meru County, Kenya. Based on existing literature Project beneficiary's selection is explained in this study by measuring the following indicators; Community ownership, Participation in project execution, Role in Resource allocation. These factors were reviewed in the study as prerequisite criteria to marshal the support of benefactors in the performance of Green Technology Market Projects in Meru County, Kenya. The study found out that benefactors were partially included in the project management team which exposed them to low access to infrastructure facilities, low resource allocation, untimely access to information regarding performance of Green Technology Market projects. This finding agrees with Booher & Innes (2002) who insinuated that the voice of benefactors in the project committee is a supreme tool to successful planning. The study also found out its vital to involve

benefactors in the project management team and also needs assessment to be done based on community priorities. The study findings agrees with Kikwatha, 2017 who posits that project beneficiary needs analysis is important in project beneficiary selection While Swanepoel and de Beer (2008) points out that beneficiaries have varietal needs and clustering them is critical when solving their needs in the project because they represent different wants that can't be solved massively.

5.3.4 Quality Management Practices and Performance of Green Technology Market Projects in Meru County, Kenya.

Research objective four was to establish the way Quality Management Practices influenced the performance of the Green Technology Market Projects in Meru County, Kenya. Based on the literature, three indicators were considered for project infrastructure; Accessibility to quality services, Knowledge on quality aspects, Training on quality certification standards. The study found out to a greater extent that traders have access to quality services at the market. This agrees with work done by Goetsch, 2010 also insinuates on the rationale of conniving projects with QM platforms is to enhance consumer contentment, add value to commodities, proper management of production process, staff credibility, improve on sales volume, sharp completion, quality lifespan of projects and finally reduce damages and project costs. The study also observed to a moderate extent that quality of services had improved with time for the last five years. The study also observed to a lower extent that traders were satisfied with price of quality of services they received at the market projects while Nair, 2006 critics that QM can only improve due to the following activities integrated in the process training staff on quality profile, certification of management team on quality controls, development of quality curriculum in training, adoption of changes in technology and finally quality improvement strategies. The study also found out to a lower extent that traders and other benefactors lack adequate training and knowledge on quality certification standards or procedures.

5.4 Conclusion

Based on the above findings, the study concludes that project Infrastructure has affirmative influence that is significant on the performance of Green Technology Market Projects in Meru County, Kenya. This is in spite of challenges such as lack of capital investment, poor design technology and mismanagement of funds. In this respect, it concludes that allocation of enough Resources could enhance the design of ultra modern market projects sensitive to Green Technology.

The study further concludes that stakeholders' involvement is also imperative in the performance of Green Technology Market Projects in Meru County, Kenya because it helps stakeholders to champion their potential and administer them successfully within effectual communication processes. Broadly speaking, it helps stakeholders to categorize areas they can offer support and protect the interest of the society at large.

It further concludes that Beneficiary's selection has positive impact that is significant on the performance of Green Technology Market Projects in Meru County, Kenya. The appropriate and target benefactors are able to priorities their needs in the project design and identify potential successes and challenges within project design cycle.

The study concluded that project Quality Management Practices has assenting influence that is significant on the performance of Green Technology Market Projects in Meru County, Kenya. This is in spite of challenges such as lack of knowledge on quality standards, poor quality designs and negligence on quality certification marks. In this respect, it concludes that adherence to quality standards by quality assurance officers and other stakeholders could enhance the sustainable design of Green Projects.

5.5 Recommendations

Based on objective one which was to examine the extent to which the project infrastructure influences the performance of the green technology market project in Meru County, Kenya. The study recommends that adoption of Green Technologies is an indispensable condition for the achievement of Sustainable development goals such as access to clean water, access to affordable and clean energy. This can be achieved by elimination of all pollutants and embrace greener technologies such as harness of solar energy through roofing of markets with solar panel materials, proper waste disposal with biogas production technologies from green wastes, clean water supply, proper parking and green landscapes for aeration, adequate refrigeration facilities to preserve agri-foods from yield loss hence enhancing food security for growing population and achieve poverty reduction as a key focus in the sustainable development goals. Towards this, the study further, recommends that the National government, County Governments and other donors should pool resources between themselves in coming up with technological policies with recast on achieving the sustainable development goals that can spur technology uptake by our traders and project beneficiaries at large.

The study objective one was to examine the extent to which the project infrastructure influences the performance of the green technology market project in Meru County, Kenya. In order to achieve the study objective and the sustainable development goals on growth in Industry, Innovation and Infrastructure development the study recommended to the two Ministry of Trade and Agriculture in every County should put up robust infrastructure facilities to support agri-food traders with value addition technologies to improve on freshness of produce at the market and also offer good storage facilities such as cold rooms, refrigerators' to preserve the produce at the market. This will call for policy framework on partnership for achieving such goals as we recast to achieve the sustainable development goals. The county governments to develop policies to support supply chain of fresh produce and market linkage to end-users through smart technologies of e-commerce.

The objective two of the study was to evaluate the extent to which the stakeholders' involvement in project influences the performance of the green technology market project in Meru County, Kenya. In order to achieve this study recommends that the National Government to joint venture with County Governments to source for foreign aid to help the design and completion of existing Green Technology markets. They should also allocate more resources in the budget for the support of trade sector. In addition that banking sector should create a favorable credit policy to galvanize trade and access to capital by micro-enterprises.

The objective two of the study was to evaluate the extent to which the stakeholders' involvement in project influences the performance of the green technology market project in Meru County, Kenya. The study further, recommends that stakeholders should be involved in project management committee to enhance performance of the Green Technology Market projects. This will enhance decent work and economic growth as away to meet the sustainable development goals. The decisions on project course and consequentially relay the report to benefactors. The demonstration of the long term impact of stakeholders' participation should be straight forward with clear remuneration procedures and policy framework.

In order to achieve objective Three of study this was meant to investigate the extent to which the project beneficiary's selection influences the performance of the green technology market projects in Meru County, Kenya. The study also recommends that County Governments to contact the needs assessments based on community priorities to strengthen inclusivity, reduced inequality and gender equality as away to achieve the sustainable development goals when designing Green Technology Market projects due to multi-stakeholders and benefactors nature of such markets that have diverse interests and their voice is critical. The projects should meet the needs of benefactors and vulnerable groups such as people with disability, youths and women to enhance ownership and acceptance of such projects at completion in order to reduce under utilization or boycott of such projects.

Based on study objective four, with aim to investigate the extent to which the project quality management practices influences the performance of the green technology market project in Meru County, Kenya. The study also recommends that the Quality Assurance Officers should improve on their availability to monitor and manage most of the activities of Green Technology Market Projects during design stage and advocate for trainings on quality standards with clear procedures on how to dissemination quality management practices to all parties in the market projects. In addition, it recommends that people who manage projects should be trained on quality certification marks of all materials to be used in the construction of market stalls with evidence of certification criteria.

5.6 Suggestions for Further Studies

A literature review depicted that there were few studies on the influencing factors of project design on the performance of Green Technology Market Projects in Meru County, Kenya. Consequently, the findings from this study serve as the base for further studies on this area of study. The study cramped its focus on Project Infrastructure, stakeholders' involvement, Beneficiary's Selection and Quality Management Practices. As significance, a similar study should be conducted to determine whether the findings could also apply to other market projects in the country other than Meru County. This would help in shaping whether its findings could be indiscriminate to other parts of the country. In accumulation, there would be the need to conduct further studies especially on other factors that were not evaluated in the current study. As such, a analogous study, but with a different spotlight can also be carried out within Meru County. This would be critical in evaluating other factors that influence the performance of Green Technology Market Projects within the country.

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APPENDICES

Appendix I: Letter of transmittal from University of Nairobi.



UNIVERSITY OF NAIROBI
OPEN DISTANCE AND E-LEARNING
SCHOOL OF OPEN AND DISTANCE LEARNING
DEPARTMENT OF OPEN LEARNING PROGRAMMES

TO WHOM IT MAY CONCERN

Date: 11th August , 2020

Uon/ODEL/MeLC/3/5

SUBJECT: SILAS DENNIS BARASA - ADM. NO. L50/10818/2018

This is to confirm that the above named person is a student at the University of Nairobi, School Of Open and Distance Learning, Department of Open Learning Programmes, Meru Learning Centre.

He/She is pursuing a Masters course in *Project Planning and Management* and would like to be assisted with information from your organization to finalize his/Her research proposal.

Any assistance accorded to him/Her will be highly appreciated.



DR. RICHARD M. MURUGU
CENTRE CO-ORDINATOR
MERU LEARNING CENTRE

Appendix II: Questionnaire for Traders.

The purpose of this questionnaire is to gather information about influence of the project design factors on performance of green technology market projects in Meru County, Kenya.

Declaration: Please answer the questions freely. The information you provide will be treated with utmost confidentiality and will only be used for academic research purposes by the researcher himself.

PART A: BACKGROUND INFORMATION

1. Please indicate your gender

Male Female

2. What is your age?

Below 25 years 25 to 35 years 36 to 45 years above 45 years

3. Which is your highest level of education?

Post Graduate

Undergraduate

Diploma

Certificate

Any other (specify).....

4. How long have you been involved in green technology market projects in Meru County?

Less than 1 years

1-2 years

3-4 years

Above 5 years

PART B: PERFORMANCE OF GREEN TECHNOLOGY MARKET PROJECTS

5. What is your agreement with the trend of the following aspects of performance of Green Technology Market Projects in Meru County for the last five years?

Strongly Agree [5] Agree [4] Neutral/Not Sure [3] Disagree [2] strongly Disagree [1]

	Strongly Agree	Agree	Neutral/Not Sure	Disagree	Strongly disagree
Years of operation has increased					

Projects operate on schedule					
Operations behind schedule are funded again					
Level of performance of projects is high					
Work performed is of high quality					
Traders informed on performance of projects					
Number of traders has increased					
Traders participate in project design					
Diverse commodity at the market					

PART C: PROJECT INFRASTRUCTURE

6. To what extent do you agree with the following statements concerning influence of project infrastructure on performance of green technology market projects in Meru County?

Very Great Extent [5] Great extent [4] Moderate extent [3] Low Extent [2] No Extent [1]

	Very great extent	Great extent	Moderate extent	Low extent	Very low extent
Infrastructure facilities are accessible to traders.					
Traders access high quality infrastructure					
Traders are sharing most facilities					
Infrastructure facilities are diverse in nature					
Traders have a register for available equipments					
Infrastructures adequately meet the needs of traders.					

Market stalls are designed in a systematic manner.					
Traders are trained on use of facilities.					
Traders are updated on changes in technology					

PART D: STAKEHOLDERS' INVOLVEMENT

7. To what extent do you agree with the following statements concerning influence of Stakeholders' involvement on performance of green technology market projects in Meru County?

	Very great extent	Great extent	Moderate extent	Low extent	Very low extent
There was fairness in identification of project committee members					
The projects committee includes local community leaders					
There was adequate training of stakeholders					
All the stakeholders participate in decision making.					
Decisions comprises of views from all stakeholders.					
Stakeholders account for all the expenditure in the project					
Stakeholders put their resources in projects					
Stakeholders give timely feedback on project's performance					
There is fair salary payments to stakeholders					

PART E: PROJECT BENEFICIARY’S SELECTION

8. To what extent do you agree with the following statements concerning influence of project beneficiary’s selection on performance of green technology market projects in Meru County?

	Very great extent	Great extent	Moderate extent	Low extent	Very low extent
There was fairness in selection of project beneficiary’s					
The local’s supplied labor needed for the projects					
The selected projects beneficiary’s includes local Traders					
Tenders were awarded to the local community suppliers.					
The beneficiary’s participate in decision making.					
There was need assessment based on community priority.					
The community own the project					
There is an equal allocation of resources to the entire beneficiary’s.					
The project beneficiary’s form the management team					

PART F: QUALITY MANAGEMENT PRACTICES

9. To what extent do you agree with the following statements concerning influence of Quality Management practices on performance of green technology market projects in Meru County?


Very Great Extent [5] Great extent [4] Moderate extent [3] Low Extent [2] No Extent [1]

	Very great extent	Great extent	Moderate extent	Low extent	Very low extent
Traders have access to quality services at the market.					
Designed market projects conform to quality standards					
Quality of services improve with time					

Quality assurance officers are accessible					
Traders are satisfied with price of quality of service					
Traders have knowledge on quality aspects					
Items are supplied by many suppliers					
All equipments have quality certification mark					
Traders are adequately trained on quality certification standards					


Thanks for your support

Appendix III: Research Permit from NACOSTI



REPUBLIC OF KENYA


Ref No: 978903



**NATIONAL COMMISSION FOR
SCIENCE, TECHNOLOGY & INNOVATION**

Date of Issue: 26/August/2020

RESEARCH LICENSE




This is to Certify that Mr., Silas Dennis Bama of University of Nairobi, has been licensed to conduct research in Meru on the topic: INFLUENCE OF PROJECT DESIGN FACTORS ON THE PERFORMANCE OF GREEN TECHNOLOGY MARKET PROJECTS IN MERU COUNTY, KENYA for the period ending: 26/August/2021.

License No: NAC/ON/TM/Y20/0398


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