

**FEASIBILITY ANALYSIS AND PERFORMANCE OF REAL ESTATE DEVELOPMENT
PROJECTS IN KISUMU CITY, KENYA**

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

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DECLARATION

This Research Project Report is my original work and has not been presented for the award of a degree or any other award in this University or any other University



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This Research Project Report has been submitted for examination with our approval as the University supervisor.



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DEDICATION

I dedicate this study Report to my wife Rachel who has been very instrumental in my life, without whom, I would not have made it this far.

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ABBREVIATIONS AND ACRONYMS

DFI:	Direct Foreign Investment
GDP:	Gross Domestic Product
GFC:	Global Financial Crisis
IMF:	International Monetary Fund
RDT:	Resource Dependency Theory
SD:	Standard Deviation
TET:	Technical Efficiency Theory
UK:	United Kingdom
USA:	United States of America

ABSTRACT

Real estate comprises of four distinct sub-sectors of commercial, housing, retail and hospital. Performance of real estate development projects in Kisumu City have been evaluated and reported to be underperforming. The hard issues surrounding real estate in Kisumu City are related to high inflation rate, low purchasing power of the population, unhealthy competition from players in the industry, high cost of accessing the working capital. The purpose of the study is to establish. Objectives of the study are; to examine influence of financial feasibility analysis on Performance of Real Estate Development Projects in Kisumu City, to assess influence of economic feasibility Analysis on performance of real estate development projects in Kisumu City, to determine of influence of market feasibility analysis on performance of real estate development projects in Kisumu City and to establish influence of environmental feasibility analysis on performance of real estate projects in Kisumu City. Resource dependency theory and technical efficiency theory anchors the study while the study employed descriptive survey research design. The target population is 165 respondents and 117 as sample size calculated using Yamane formula of 1967. Content and construct validity of the research instruments were ensured by having the instruments reviewed by the study supervisor while reliability was ensured by split-half method. Data was analyzed using inferential statistical analysis of regression and correlation analyses and descriptive statistical analysis of mean, SD, percentage and frequency counts. The results have been presented in tables. On objective one the study reported a significant moderately strong positive correlation between financial feasibility analysis and performance of real estate development projects , ($r=0.309$; $P<0.001$). On objective two, the study reported a significant weak positive correlation between economic feasibility analysis and performance of real estate development projects , ($r=0.253$; $p<0.009$). On objective three, reported a significant moderately strong positive correlation between market feasibility analysis and performance of real estate development projects , ($r=0.302$; $p<0.002$) and on objective five, the study reported a significant weak positive correlation between environmental feasibility analysis and performance of real estate development projects , ($r=0.260$; $p<0.007$). The study concluded that feasibility analysis of financial, economic, market and environmental factors have got significant influence on performance of real estate development projects. The study recommended proper and institutional policy frameworks to enhance performance of real estate development projects

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Real estate markets are dynamic and is highly dependent on the prevailing economic and market forces of the international markets. Real estate comprises of four distinct sub-sectors of commercial, housing, retail and hospitality (Laposa and Mueller 2020). India is one of the biggest real estate property markets in the world owing to her big population of over 1.4 Billion people. Major cities such as Goa, Chennai, Pune, Dehradun and New Delhi are some of the biggest players of the robust real estate property markets in India. The real estate sector is one of the most important sectors of growth to the Indian economy since it ranks among the top three sectors that provide employment to the country's population. (Newell and Kamineni (2020). However, India is still lagging much behind the much established real estate sectors of Asian developed countries such as Japan, Malaysia, China and the European Developed Countries.

In USA, real estate development sector is very robust with over 351,000 registers real estate development companies and accounts for approximately 17.4% of the GDP (Mordor Property Report, 2019). The high demand in the sector is driven by high population growth as the country boasts of a population of over 300 million people. Other important factors driving real estate development include; ease of access to capital for investment, high income levels of the population and employments and favorable government regulatory policies that is non-prohibitive (Juneja,2015). Adoption and use of modern technologies in real estate industry has been credited with meteoric rise in performance of real estate development sector which is a world leader, followed by western Europe, Central Europe, Asia, Northern Europe, Pacific, Latin America, Eastern Europe then Africa and Middle East Respectively. This is a clear indication that real estate sector in the developing countries are still underdeveloped and is experiencing formidable challenges.

In Europe, the Western European countries are the leaders in real estate development with UK, France and Germany accounting for a significant market share of real estate development projects in Europe. The reforms initiated by the UK government in Real estate sector since 2016 has begun to reward handsomely as the shared ownership and affordable homes programme has enables more of her citizens to acquire and own homes as compared to the period before the initiative was launched. This coupled with the internal players in the

real market industry and the technological reforms have impacted positively to the development of the sector in Europe

In Africa, real estate development industry remains one of the most underdeveloped and can only be compared to the middle east countries. However, Africa remains one of the hottest prospects of real estate development owing to her high population growth rate, availability of resources and high economic growth rate in some of the African Countries like South Africa, Kenya, Nigeria, Ghana, Zambia, Angola, Egypt, Rwanda among others, (Miloyo and Emerson 2019). Other countries like Ivory Coast which is among the leading in Direct Foreign Investment (DFI) and the recent discoveries of oil in Uganda and Kenya makes Africa exhibit the greatest potential in real estate sector growth, (IMF Report, 2018).

According to global property report (2020), real estate purchases in Kenya has majorly been through cash transactions since the mortgage market is fairly underdeveloped compared to other countries across the world. The amendment of banking act 2016 led to low liquidity in the economy due to rate caps the led to banks becoming conservative at lending. With a projected growth rate of 5.6% or there about by IMF report (2020), the real estate market is expected in remain robust in the coming years with Key Developer such as Cytonn Investment dominating the industry for multi-million projects Cytonns Report (2016). The government through policies and regulations is a key player in the real estate industry as the Kenya rates caps 2016 and tax amendment 2020 had a significant effect on the industry dynamics.

In Nairobi Kenya UN-Habitat through the Kenya Slum upgrading progarmme that was initiated in 2004 has been actively constructing dwellings for the urban poor in partnership with the Kenyan Government to improve the habitant and hygiene of the urban poor. The project has benefited several slum dwellers in Kibra slums in Nairobi. Although not enough for every slum dweller but it has been reported that several families were able to benefit and this has greatly eased the pressure on housing in the slum areas.

Kisumu City being one of the only three Cities in Kenya has been lagging behind in real estate development industry as compared to Nairobi and Mombasa despite the enormous potential of strategic location, accessibility by road water, air and railway networks. This however is likely to change with numerous development projects initiated in the city such as re-opening the lake port to serve the great lakes region and the railway station to connect Kisumu to other major cities in the region. This is hoped will further open the City of Kisumu for real estate development and investments because of its greater and promising future (Cytonn Report 2019)

With town such as Kakamega, Bondo and Busia being just a few Kilometers away, Kisumu remains one of the high potential real estate development markets and it is in this regards that this study established how feasibility analysis in Kisumu City influences the performance of real estate projects.

1.2 Statement of the Problem

Performance of real estate Projects in Kisumu City have been evaluated and reported to be underperforming. This is majorly because most real estate development project activated by companies have experienced a myriad of challenges from the time they are initiated and during their execution. The hard issues surrounding real estate development in Kisumu City are related to high inflation rate, low purchasing power of the population, unhealthy competition from players in the industry, high cost of accessing the working capital and most of the financiers charge exorbitant interest rates as well as poor or unavailability of support infrastructure and social amenities. These factors make real estate project very expensive and risky undertaking as even after completion the development companies do not find ready market for their products due to low demand and thus leading to reduced profit margins and even losses.

It is therefore believed that undertaking proper feasibility analysis of financial, economic, market and environmental prevailing factors in real estate industry in Kisumu City will significantly improve performance of real estate Projects so that so the best project decisions are made on real estate development, pricing, and subsequently their sales.

1.3 Purpose of the study

The purpose of this study is to establish influence of feasibility analysis on performance of real estate development Projects in Kisumu City

1.4 Research Objectives

The four objective were formulated and determined as follows;

- i. To examine influence of financial feasibility analysis on performance of real estate development projects in Kisumu City
- ii. To assess influence of economic feasibility analysis on performance of real estate development projects in Kisumu City
- iii. To determine of influence of market feasibility analysis on performance of real estate development projects in Kisumu City

- iv. To establish influence of environmental feasibility analysis on performance of real estate development projects in Kisumu City

1.5 Research Questions

The four research questions were formulated and sought answers for as follows;

- i. How does financial feasibility analysis influence performance of real estate development projects in Kisumu City?
- ii. How does economic feasibility analysis influence performance of real estate development projects in Kisumu City?
- iii. How does market feasibility analysis influence performance of real estate development projects in Kisumu City?
- iv. How does environmental feasibility analysis influence performance of real estate development projects in Kisumu City?

1.6 Significance of the study

It is hoped this study will contribute to the development and implementation of real estate project in Kisumu and even in other major cities in Kenya by providing factual and empirical information on the industry dynamics to industry players. Further it is anticipated that the government will find this study useful for policy and decision making in real estate industry regulation on tax regimes and incentives. Finally, other players might also find this study as a good reference information especially for the researchers and financial institutions.

1.7 Basic assumptions of the Study

The study assumed that the respondents selected to participate in the study did so with utmost civility and will thus cooperated with the researcher by voluntarily providing the required data and information without any form of coercion and undue pressure. The study further assumed that information provided by the respondents was highly accurate and thus represented the current trends and patterns in the real estate industry in Kisumu City.

1.8 Limitations of the Study

The study was limited by access to real estate sites which are normally restricted places and not easily accessible to non-project staff and other unauthorized persons. This was however

overcome by seeking prior consent from the project management and by informing them on the motive and date of the site visits. The study was also limited by the information that was provided by the respondents which normally is accurate to the extent and best of their knowledge and interests. This was however overcome by at least using more than one tool for data collection to enhance accuracy by supplementing quantitative data with qualitative data. The study was also limited by COVID-19 pandemic made access to the sample population a challenge. but however be overcome by strictly observing the COVID-19 protocol as laid down by the ministry of health.

1.9 Delimitations

The study was delimited by scope as it was only conducted to cover real estate development in Kisumu City and not any other City or town in Kenya. The study was also be delimited by design as it only employed descriptive survey and not longitudinal that would otherwise study real estate from initiation to completion. Lastly the study was also limited to studying influence of feasibility analysis on real estate development projects and not any other parameter as independent variable.

1.10 Definition of Significant Terms Used in the Study

In the context of this study, the following terms have their meanings as indicated;

Performance of Real Estate development Projects; Means the Sell-out Period, the occupancy rate, Project completion period, adherences to specifications and regulation and Cost Performance Index of the real estate development Projects

Financial Feasibility Analysis; Means the cost of capital acquisition, funding availability, break even period, securitization processes and financial Accessibility

Economic Feasibility Analysis; Means Inflation rates, taxation regimes, currency strength and exchange rates, Land rates and asset depreciation rates

Market Feasibility Analysis; means Industry Market Competition, Demand for real estate assets, the purchasing power of the population, Customer preferences and real estate asset alternatives

Environmental Feasibility Analysis; means availability of raw materials, existence of support infrastructure, favorable weather and climatic conditions, Safety and security in the area and Accessibility

1.11 Organization of the Study

The study has five chapters. Chapter detailing introduction such as background of the study, statement of the problem, objectives of the study, research questions, significance of the study, basic assumptions of the study, limitations and delimitations of the study, definition of Significant terms used and the organization of the study. Chapter two details Literature review on performance of real estate development projects, Feasibility analysis, Financial feasibility analysis, economic feasibility analysis, market feasibility analysis and literature review on environmental feasibility analysis. The chapter also details theoretical and conceptual frameworks with gaps and summary in literature respectively and the tail-end.

Chapter three details Research Methodology presented under the following sub-themes; Research design, target population, sample size and sampling procedure, research instruments, pilot-testing of the research instruments, data collection Procedure, data analysis techniques, ethical considerations and operationalization of the variables.

Chapter four covers the following sub-themes Questionnaire return rate, demographic information of respondents, descriptive and inferential statistics analyzed, presented, interpreted and discussed on performance of real estate projects, Financial feasibility analysis and performance of real estate projects, economic feasibility analysis and performance of real estate projects, market feasibility analysis and performance of real estate Projects and environmental feasibility analysis and performance of real estate projects. Chapter five details Summary of findings, conclusions and Recommendations, suggestions for further Research and contributions to body of knowledge.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examines empirical reviews on; performance of real estate projects, feasibility analysis and performance of real estate development projects, Financial feasibility analysis and performance of real estate projects, Economic feasibility analysis and performance of real estate projects, Market feasibility analysis and performance of real estate Projects and Environmental feasibility analysis and performance of real estate development projects. The chapter further reviewed theories underpinning the study, conceptual framework and literature gaps and summary of literature.

2.2 Performance of Real Estate Development Projects

Real estate property is any construction development undertaken on land with the aim of human utility, recreation or entertainment. Karugu and Mugambi (2017) undertook a study on entrepreneurial marketing and performance of real estate enterprises; a case of Optiven limited Nairobi. The study employed descriptive survey research design. The findings of the study suggest that entrepreneurial market enhances performance of real estate property projects in addition to strategic and innovative orientations. The study did not however relate feasibility analysis to performance of real estate projects.

Newell, Wing, Kei and McKinnell, (2020) undertook a study to evaluate factors influencing real estate sector in Hong, Kong using survey and longitudinal designs. From the findings, it was reported that the Asian Financial crisis significantly affected the real estate industry with real estate equity significantly falling by about 20%. The study focused on the effects of market volatility brought about by the financial recession that was experienced in the Asian Continent while the current study focused on influence of feasibility analysis on performance real estate development Projects.

Milcheva, Yildirim and Zhu, (2020). Conducted a study to establish how geographic diversification influence performance of real estate development projects. The study employed survey design and according to the findings, it can be deduced that, geographical diversification significantly influences performance of real estate development project as real estate firms with dispersed projects over a wider geographic areas were reported to outperform those with projects concentrated in just one locality. The study investigated

performance based on the risk of geographic portfolio distribution but not feasibility which this study focused on.

2.3 Financial Feasibility Analysis and Performance of Real Estate Development Projects

Oprea (2010) Conducted a study on importance of financial feasibility analysis on investment in real estate development in Bucharest Romania. The study employed survey design. The study reported that financial feasibility lowers risks that the project is likely to encounter during its implementation as the risks are dynamic and changes for time to time. The study was spot on in identifying the financial risks that are associated with real estate development projects, however the study did not report on how these risks can be minimized so that they cannot adversely affect real estate development projects

According to the findings of a study initiated by Sdino, Rosasco and Magoni, (2016) to assess the financial feasibility of a real estate project, the case of Tessitoria project, Italy, using a case study design. The study reported that the financial feasibility of every proposed project cannot depend on the financial contributions from the general public only. This study focused on financial feasibility of public funded project while ignoring others financial sources in real estate development which are the major financial sources.

Morano and Tajani, (2015). Conducted a study to evaluate financial feasibility of social housing in urban redevelopment in Bari Italy by employing descriptive survey design. The findings of the study suggest that the real development prices are highly dependent on the cost of development and any additional cost beyond the budgeted cost will be reflected on the property price after development and completion. The study did not however dwell on factors which causes the budget to increase beyond the planned value which the current study has dwelled on.

2.4 Economic Feasibility Analysis and Performance of Real Estate Development Projects

Bernhold, Latuch, and Riemenschneider, (2014). Used a case study design to determine success dimensions of real estate development projects in Germany, from the findings of the it can be deduced that economic risk can adversely affect performance of real estate development project. Such economic risk can include financial instability of the investors, economic recession in the target markets will indeed leads to compromised quality, cost and scope of the real estate projects. The study did not however illustrate on how these economic risks can be mitigated so as not to negatively impact on the project.

Monteiro, Costa and Christo, (2020) evaluated economic feasibility of small hydro-power projects in Brazil using survey design. From the findings of the study, it was reported that development project should emphasize of sustainable returns rather than economic returns. This is to say, economically the project can be expensive to initiate and run but if the benefits are sustainable in the long run then the project is worth considering. This study did not concentrate on real estate projects rather it focused on general development projects.

Giudice, &De Paola, (2018) undertook a study to investigate Effects of real estate economics on finance and investment in Naples Italy using survey design. The study reported that economic feasibility evaluation significantly enhances performance of real estate projects as the firms are able to predict and understand the prevailing economic dynamics before deciding to undertake an investment. The study however did not reveal the economic feasibility parameter under considerations.

2.5 Market Feasibility Analysis and Performance of Real Estate Projects

Karanja and Mwathi, (2017) conducted a study on effects of market dynamics on performance real estate development in Kenya. The study employed descriptive survey design and the study targeted real estate firms in Nairobi. The findings of the study revealed that performance of real estate development in Kenya is highly dependent on market forces of demand and supply as disposing the real estate products when the demand is low impacts negatively on the profitability of real estate firms. The study did not however establish how feasibility analysis helps in market risk aversion.

Morano, Tajani, Di Liddo and Anelli (2020) Conducted a study on feasibility analysis of refurbishment of real estate investments in Italian markets using survey design. The study reported that there has been increased demand for refurbished property than newly established properties and thus more profitability margins. The study further reported that this shift is due to favourable fiscal policy with regards to refurbished property as compared to newly build real estate properties. The study did not however reveal any dynamics between market competition by different companies in real estate development

According to a study conducted by Ciochetti and Malizia, (2013) on financial and Market analysis of real estate development process in North Carolina using descriptive survey research design, the study reported that financial availability and demand for real estate products significantly influences quality and location of real estate project development. However, the study did not investigate market factors that are highly considered by the customers of real estate products.

2.6 Environmental Feasibility Analysis and Performance of Real Estate Projects

Munarim and Ghisi (2016) evaluated Environmental Feasibility analysis of Heritage building rehabilitation using a case study design in Brazil. From the findings as reported by the study, the findings suggest that conducting environmental feasibility of building projects helps in mitigating adverse construction impacts that would increase construction costs in real estate projects. The study did not however study how environmental litigation can influence performance of real estate development projects.

Jo, Lee, Suh, Kim and Park (2015) conducted a study to assess the dynamic feasibility analysis of investment projects in South Korea; A case study of bridge construction projects. From the findings of the study environmental feasibility analysis was reported to significantly affect the projects outcome since provisions in the environment should always be considered in order not to interfere with the project set-ups. The study however failed to investigate the cost implication on projects as a result of non-compliance to environmental feasibility analysis.

Halil, Hassan, and Nasir, (2016). Conducted a study on influence of environmental feasibility of green building projects in Malaysia. The study used descriptive survey design and reported that conducting environmental feasibility analysis significantly enhances projects success as most of the possible negative impacts are projected and mitigated and therefore significantly reduces their risk impacts on the development of real estate development projects. This did not illustrate on how environmental risk factors can be mitigated to minimize impacts on projects cost

2.7 Theoretical Framework

The study was guided by Resource Dependency Theory and Technical Efficiency Theory

2.7.1 Resource Dependency Theory

This is the main theory anchoring the study and is linked to the dependent variable. This theory was propounded in 1978 by Pfeffer and Salancik to illustrate how external resources and factors influence an organizational performance. The theory states that a firm's survival is determined by how they deal with change and navigate the external environment to access the resources, (Van Weele, 2018). The theory further posits that in the external environment, we find other organization that either controls the resources or are also competing for the same resources for their survival. Firms management therefore attempts to co-ordinate the factors in the external environment to either be autonomous or to ensure their continued existence. The theory reminisces that power relations and shifts between two or more organizations results into influence an organization can have over the other one. Other proponents of the theory include; Finkeilsteins (1997), Poldolny (1993), Carroll (1984) among others.

This theory is important to this study as it explain how real estate management and development project firms interact with their external environment to provide them with the resources such as land for building, building materials for the actual construction activities, banks and other financial institutions for funding, the market forces for demand and supply of the real estate products, the potential customers for real estate purchase and occupancy and the government for regulations. The theory is thus concerned a firm's external environment players than the internal environment and this perfectly matches feasibility analysis that is also mostly concerned with the evaluation of the external environment in order to predict possible future outcomes.

The theory however is cognizant of the following assumption; Risk and uncertainties are factors that are beyond the control of a firm and thus their levels in the external environment does not adversely affect the firm's control over resources. It also assumes that organizations will always modify their environments in response to external forces that are in play to cope with the changes. Lastly the theory is premised on the assumption that there will always be power imbalance between organizations that this is what creates interdependence between firms for resources and survival.

2.7. 2 Technical Efficiency Theory

This is the theory that is linked to the dependent variable and the minor theory of the anchoring the study. The theory was propounded by Farrell M.J in 1957 and states that the output quantity of a firm is a function of the quantity of inputs which a firm employ in the production process. Other proponents of this theory include; Debru and Koopmans, Russell, Fare and Lovell among others. Theory of Efficiency helps in determining how inputs employed in achieving a goal perform in producing the desired results. Firms are expected to maximize their outputs from the factors of production. Real estate development firms therefore are expected to use the least inputs and give maximum outputs and profitability (Coelli, 2005).

The theory is premised on the assumption that all the production units are efficient production Units. It also assumes that in any production process, there is always a constant return to scale production technologies which is always not the case. This theory is relevant to this study as it explains the relationship between the importance of conducting financial, economic, market and environmental feasibility in order to determine their influence on Performance of Real Estate Development Projects in Kisumu City. Performance of real estate is dependent on the listed factors of production that can be represented by the equation as $Q = f(x_1, x_2, x_3, x_4)$ where x_1 , x_2 , x_3 and x_4 represents finance, economic, market and environmental factors of production in real estate development projects and Q the real estate output and f, the function.

2.8 Conceptual Framework of the Study

This is figurative framework that shows the relationships between independent and dependent variables. The dependent variables are on the left side of the framework and is joined by arrows to the dependent variable which shows a linear kind of relationships. In this study therefore the independent variables are; financial feasibility, economic feasibility, market feasibility and environmental feasibility all with their measurement indicators while the dependent variable is Performance of Real Estate Development Projects in Kisumu City

Feasibility Analysis

Independent variables

Financial Feasibility Analysis

- cost of capital acquisition
- Funding availability
- Break even period
- Securitization processes
- Finance accessibility

Economic Feasibility Analysis

- Inflation rates
- Taxation regimes
- Currency strength and exchange rates
- Land rates
- Asset depreciation rates

Market Feasibility Analysis

- Industry Market Competition
- Demand for real estate assets
- Population purchasing power
- Customer preferences
- Real estate asset alternatives

Environmental Feasibility Analysis

- Availability of raw materials
- Support infrastructure
- Weather and climatic conditions
- Safety and security
- Accessibility

Performance of Real Estate Projects

- Sell out Period
- Occupancy rate
- Project completion period
- Adherences to specifications and regulations
- Cost Performance Index

Figure1: Conceptual Framework Showing Influence of Feasibility Analysis and Performance of Real Estate Development Projects in Kisumu City

2.9 Knowledge Gaps

Table 2.1 presents knowledge gaps arising from the literature reviewed in the study

Table 2.1: Knowledge Gaps

Variable	Author/year	Title of the Study	Methodology used	Findings of Study	Knowledge Gaps	Focus of Current Study
Financial feasibility analysis	Oprea (2010)	importance of financial feasibility analysis on investment in real estate development	survey design.	Financial feasibility analysis lowers risks that the project is likely to encounter during its implementation ask the risks are dynamic and changes for time to time	The study was spot on in identifying the financial risks that are associated with real estate development projects, however the study did not report on how these risks can be minimized	The study focused on how Financial Feasibility analysis influences performance real estate development Projects
	Sdino, Rosasco and Magoni, (2016)	Assessment of the financial feasibility of a real estate project, the	a case study design	The study reported that the financial feasibility of every proposed project cannot depend on the financial	This study focused on financial feasibility of public funded project while ignoring others financial sources in	The study focused on how Financial Feasibility analysis influences performance real estate development Projects

		case of Tessitoria project, Italy		contributions from the general public only	real estate development which are the major financial sources.	
	Morano and Tajani, (2015).	financial feasibility of social housing in urban redevelopment in Bari Italy	Descriptive survey design	The findings of the study suggest that the real development prices are highly dependent on the cost of development and any additional cost beyond the budgeted cost	The study did not however dwell on factors which causes the budget to increase beyond the planned value	The study focused on how Financial Feasibility analysis influences performance real estate development Projects
Economic feasibility analysis	Bernhold, Latuch, and Riemenschneider, (2014).	Success dimensions of real estate development projects in Germany	Descriptive survey study design	findings of the it can be deduced that economic risk can adversely affect performance of real estate development project.	The study did not however illustrate on how these economic risks can be mitigated so as not to negatively impact on the project	The study focused on how Economic Feasibility analysis influences performance real estate development Projects

	Monteiro, Costa and Christo, (2020)	Economic feasibility of small hydro-power projects in Brazil	Survey design	From the findings of the study, it was reported that development project should emphasize of sustainable returns rather than economic returns	This study did not concentrate on real estate projects rather it focused on general development projects	The study focused on how Economic Feasibility analysis influences performance real estate development Projects
	Giudice, & De Paola, (2018)	Effects of real estate economics on finance and investment	Survey design	The study reported that economic feasibility evaluation significantly enhances performance of real estate projects	The study however did not reveal the economic feasibility parameter under considerations.	The study focused on how Economic Feasibility analysis influences performance real estate development Projects
Market feasibility analysis	Karanja and Mwathi, (2017)	Effects of market dynamics on performance real estate development in Kenya.	descriptive survey design	The findings of the study revealed that performance of real estate development in Kenya is highly dependent on market forces of demand and supply	The study did not however establish how feasibility analysis helps in market risk aversion.	

	Morano, Tajani, Di Liddo and Anelli (2020)	Feasibility analysis of refurbishment of real estate investments in Italian markets	Survey design	The study reported that there has been increased demand for refurbished property than newly established properties and thus more profitability margins	The study did not however reveal any dynamics between market competition by different companies in real estate development	
	Ciochetti and Malizia, (2013)	Financial and Market analysis of real estate development process in North Carolina	Descriptive survey research	the study reported that financial availability and demand for real estate products will significantly influence quality and location of real estate project development.	However, the study did not investigate market factors that are highly considered by the customers of real estate products.	
Environmental feasibility analysis	Munarim and Ghisi (2016)	Environmental Feasibility analysis of Heritage building	Case study.	The findings suggests that conducting environmental feasibility of building projects helps in	The study did not however study how environmental litigation can influence performance of real	The study focused on how Environmental Feasibility analysis influences performance real estate development Projects

		rehabilitation		mitigating adverse construction impacts that would increase construction costs	estate development projects	
	Jo, Lee, Suh, Kim and Park (2015)	Dynamic feasibility analysis of investment projects in South Korea; A case study of bridge construction projects	Case Study	Environmental feasibility analysis was reported to significantly affect the projects outcome	The study however failed to investigate the cost implication on projects as a result of non-compliance to environmental feasibility analysis	The study focused on how Environmental Feasibility analysis influences performance real estate development Projects
	Halil, Hassan, and Nasir, (2016).	Influence of environmental feasibility of green building projects in Malaysia	descriptive survey design	conducting environmental feasibility analysis significantly enhances projects success as most of the possible negative impacts are	This did not illustrate on how environmental risk factors can be mitigated to minimize impacts on projects cost	The study focused on how Environmental Feasibility analysis influences performance real estate development Projects

				projected and mitigated		
Performance of real estate Projects	Karugu and Mugambi (2017)	Entrepreneurial marketing and performance of real estate enterprises; a case of Optiven limited Nairobi.	Descriptive survey research design	The findings of the study suggest that entrepreneurial market enhances performance of real estate property projects	The study did not however relate feasibility analysis to performance of real estate development Projects	The study focused on how Feasibility analysis influences performance real estate development Projects
	Newell, Wing, Kei and McKinnell, (2020)	Factors influencing real estate sector in Hong, Kong using survey and longitudinal designs.	Survey and longitudinal designs	From the findings, it was reported that the Asian Financial crisis significantly affected the real estate industry with real estate equity significantly falling by about 20%.	The study focused on the effects of market volatility brought about by the financial recession that was experienced in the Asian Continent but ignored feasibility analysis	The current study focused on influence of feasibility analysis on performance real estate development Projects

	Milcheva, Yildirim and Zhu, (2020).	Geographic diversification influence on performance of real estate development projects	survey design	geographical diversification significantly influences performance of real estate development project	The study investigated performance based on the risk of geographic portfolio distribution but not feasibility analysis	The study focused on how Feasibility analysis influences performance real estate development Projects
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2.10 Summary of Literature Review

According to literates reviewed on Financial feasibility analysis on studies by Oprea (2010), Morano and Tajani, (2015).and Sdino, Rosasco and Magoni, (2016), the findings suggest that financial feasibility analysis significantly influence performance of real estate projects. According to literates reviewed on Economic feasibility analysis on studies by Bernhold, Latuch, and Riemenschneider, (2014) Monteiro, Costa and Christo, (2020) and Giudice, &De Paola, (2018), the findings suggest that economic feasibility analysis significantly influences performance of real estate projects

According to literates reviewed on Market feasibility analysis on studies by Ciochetti and Malizia, (2013), Morano, Tajani, Di Liddo and Anelli (2020), and Karanja and Mwathi, (2017), the findings suggest that market feasibility analysis significantly influences performance of real estate projects. According to literates reviewed on Environmental feasibility analysis on studies by Halil, Hassan, and Nasir, (2016), Jo, Lee, Suh, Kim and Park (2015) and Munarim and Ghisi (2016) the findings suggest that Environmental feasibility analysis significantly influences performance of real estate projects

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter is composed the research design that was employed by the study, target population, sampling and sample size determination, tools for data collection, pilot testing of the instruments, reliability and validity of the instruments, data analysis techniques, ethical issues considerations and operationalization of the research variables

3.2 Research Design

The study's design is descriptive survey research design. This design has been appropriately chosen as it uses both quantitative and qualitative approaches of data collection to achieve the research objectives and to answer research questions, Schweser (2008). According to (Tromp and Kombo 2014), research design is the basic building block of how a study was conducted. It forms the basis for conducting a study and entails the blueprint sampling, data collection, measurement and analysis of data. The use of qualitative and quantitative techniques is important for a study as it leads to more concrete information that can reinforce each other.

3.3 Target Population

Target population denotes the entire group of people or objects with similar characteristics that the researcher is interested in obtaining statistical information from (Kombo and Tromp, 2006). While a target are individuals, objects and events that a researcher wishes to study and draw inferences from. The study's target population was 165 persons in the real estate industry as indicated in Table 3.1

Table 3.1: Target Population

Target persons	Number
Project Managers	20
County Urban Planning Division Managers	15
NCA Officials	10
NEMA Officials	10
Bank Managers	15
Site Managers	15
Real estate firm Managers	10
Real Estate customers	40
Real Construction firms' management	10
Housing finance cooperation	20
Total	165

Source: County Government of Kisumu

3.4 Sample size and Sampling Procedure

The representation sample drawn from the target population for observation while the specified verifiable method used to arrive at the sample is the sampling procedure, (Kothari 2004). The study's Sample size and sampling procedure is further discussed in sub-themes 3.4.1 and 3.4.2

3.4.1 Sample Size

Sample size a representative fraction of the target population. According to Johnstone (2019) sample size is a sub-set of the target population that is drawn for examination and for making inferences. The study used sample size determined by Taro (1967) formula to arrive at 165 respondents.

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

Where;

N= Target population

n = Sample Size

e = Level of Precision at ± 5% and 95% Confidence Level

1 = Constant

Table 3.2: Sample Size Appropriation Table

Target persons	Number	Sample Size
Project Managers	20	$\frac{20}{165} \times 117 = 14$
County Urban Planning Division Managers	15	$\frac{15}{165} \times 117 = 11$
NCA Officials	10	$\frac{10}{165} \times 117 = 7$
NEMA Officials	10	$\frac{10}{165} \times 117 = 7$
Bank Managers	15	$\frac{15}{165} \times 117 = 11$
Site Managers	15	$\frac{15}{165} \times 117 = 11$
Real estate firm Managers	10	$\frac{10}{165} \times 117 = 7$
Real Estate customers	40	$\frac{40}{165} \times 117 = 28$
Real Construction firms' management	10	$\frac{10}{165} \times 117 = 7$
Housing finance cooperation	20	$\frac{20}{165} \times 117 = 14$
Total	165	117

3.4.2 Sampling Procedure

Sampling entails the systematic procedure of selecting items, objects or respondent for examination in a stud, (Gay, 1987). Representativeness of the target population by the sample selected is highly desired so as to minimize as possible error due to bias in sampling. According to Nassiuma (2000), sampling is a very important aspect of social research as it saves time and resources that would have otherwise been used in censure studies. Simple random probability method and purposive non-probability methods were used to arrive at study respondents. The research tools were then used on the selected sample of the study respondents.

3.5 Research Instruments

The tools that were used to effectively collect the required data in order to achieve the objectives of the study included, questionnaires and interview schedules. The interview guide was administered to 15 respondents while the questionnaire was self-administered to the 117 study respondents. (Ogulas 2005), emphasized on that the use of questionnaires simple

language constructed questionnaires in order to minimize or eliminate ambiguity as possible in responses and analysis. Leading questions should be avoided as much as possible lest the respondents become bias in their responses

3.5.1 Pilot Testing of Research Instruments

In order to achieve high reliability and validity, the research tools were pre-tested by 10% of 117 the sample population which translate to about 12 respondents in Eldoret Town so as to avoid pre-exposure of the research instrument to the study population that might lead to biasness. Eldoret Town has been chosen for pilot testing because of its real estate development industry that has got population similarities with Kisumu City. After pilot testing Pearson rank correlation were computed to establish the level of reliability while based on the outcomes, the statements and questions were adjusted accordingly.

3.5.2 Validity of the Research Instruments

Validity of research instruments denotes the instrument's ability measure the parameters it is formulated to measure and this is very important in research for instance thermometer is supposed to measure temperature and thus when used should give the temperature and not humidity. A valid instrument therefore should be able to give information and values on phenomena it is applied on (Orodho and Kombo, (2002). Content validity of the research instruments was achieved by study supervisor's reviews and once he was contented, then the instruments were passed ready for application. Construct validity was ascertained by thorough reviews to ensure they are comparable to known variables.

3.5.3 Reliability of the Instruments

An instrument is deemed reliable if it consistently gives similar results when subjected on phenomena at different times or by different entities, (Garg and Kothari, 2014). The study achieved high reliability by split-half method on research instruments that entailed the questionnaire administered during pilot testing were collected and divided exactly into two and then Karl Pearson's co-efficient of correlation computed for the two sets. A positive score of $r \geq 0.8 \leq 1$ is the threshold for highly desirability while $r < 0.7$ is an indication of less reliable and therefore re-adjustment required for the instruments. Reliability correlation co-efficient was ensured by Karl Pearson's Correlation co-efficient as indicated in the formula;

$$r = \frac{n \sum xy - \sum x \sum y}{\sqrt{[n \sum x^2 - (\sum x)^2][n \sum y^2 - (\sum y)^2]}}$$

Where;

r= reliability correlation co-efficient

n= 10% of sample size

x= total score of test-administration

y=total score of retest-administration

The study reported a reliability correlation coefficient of 0.849 which is deemed to be highly reliable.

3.6 Data Collection Procedure

The study was defended before a panel of internal University of Nairobi examiners for examination and review. The researcher shall then make the recommended correction and then seek research permit from the government body that regulates research in Kenya (NACOSTI). The research shall the undertake familiarization and excursion visits to the real estate development sites. Data collection shall then commence in earnest by self-administering the research instruments to the study respondents for data collection by the investigator

3.7 Data Analysis Technique

Data analysis entails data is cleaning, cording, tabulation and applying using appropriate software to transform the data from figure to appropriate information that can be interpreted. (Mugenda and Mugenda 2003). Quantitative data was reviewed for accuracy and presented as per theme of objectives. Quantitative data on the other hand was edited to remove possible outliers, coded and tabulated ready for analysis. Descriptive analysis determine mean, SD, percentage and frequency counts were used while inferential analysis of correlation and regression were also used. The preferred software for data analysis was SPSS, version 27 by IBM company.

3.8 Ethical Considerations

Ethics defines the behavior of a researcher in relation to the respondent of objects while undertaking the research process. Ethical considerations in research is important in promoting the conduct of a researcher in order to validate the resultant outcome of the process as fair and adequate, ethical and valid, (Creswell, 2013). The study seriously took into

considerations the principles of malfeasance to protect the rights of the respondents and also to protect the integrity of the research and the research results.

The study maintained high level of accountability and responsibility with the research data and the respondents were not required to reveal their identity or any confidential information about their bio-data. The study did not coerce respondents to participate in th study but rather did it out of their own free will with the option of voluntary withdrawal at any stage of the study.

3.9 Operationalization of Variables

According to Odula (2015) operationalization of variables shows how the research paradigms, approaches, measurement scale and tools for analysis of the data while studying the research variables to desired purpose of the study. Table 3.2 shows how the of variables were operationalized

Table 3.3: Operationalization of Variables

Objectives	Variables	Indicators	Measurement	Research Approach	Type of Analysis	Tools of Analysis
To Examine Influence of Financial Feasibility Analysis on Performance of real estate Projects in Kisumu City	Financial Feasibility Analysis	<ul style="list-style-type: none"> • The cost of capital acquisition • Funding availability • Break even period • Securitization processes • Financial Accessibility 	Ratio Ordinal	Mixed Approach	Descriptive/ Inferential Statistics	SD, Percentages, Frequency and Mean Correlation Analysis and Regression Analysis
To assess Influence of Economic Feasibility Analysis on Performance of real estate Projects in Kisumu City	Economic Feasibility Analysis	<ul style="list-style-type: none"> • Inflation rates • Taxation regimes • Currency strength and exchange rates • Land rates • Asset depreciation rates 	Ratio Ordinal	Mixed Approach	Descriptive/ Inferential Statistics	SD, Percentages, Frequency and Mean Correlation Analysis and Regression Analysis

To Determine of Influence of Market Feasibility Analysis on Performance of real estate Projects in Kisumu City	Market Feasibility Analysis	<ul style="list-style-type: none"> • Industry Market Competition • Demand for real estate assets • The purchasing power of the population • Customer preferences • Real estate asset alternatives 	Ratio Ordinal	Mixed Approach	Descriptive/ Inferential Statistics	SD, Percentages, Frequency and Mean Correlation Analysis and Regression Analysis
To Establish Influence of Environmental Feasibility Analysis on Performance of real estate Projects in Kisumu City	Environmental Feasibility Analysis	<ul style="list-style-type: none"> • Availability of raw materials • Existence of support infrastructure • Favourable weather and climatic conditions • Safety and security in the area • Accessibility 	Ratio Ordinal	Mixed Approach	Descriptive/ Inferential Statistics	SD, Percentages, Frequency and Mean Correlation Analysis and Regression Analysis
To determine Performance of real estate Projects in Kisumu City	Performance of real estate development Projects in Kisumu City.	<ul style="list-style-type: none"> • Sell out Period • The occupancy rate • Project completion period • Adherences to specifications and regulations • Cost Performance Index of the real estate development Projects 	Ratio Ordinal	Mixed Approach	Descriptive	SD, Percentages, Frequency and Mean

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION, INTERPRETATION AND DISCUSSION

4.1 Introduction

Chapter four presents results as analyzed, presented, interpreted and discussed on rate of questionnaire return, demographic information of respondents, Performance of Real Estate Development Projects, Financial Feasibility Analysis and Performance of Real Estate Development Projects, Economic Feasibility Analysis and Performance of Real Estate Development Projects, Market Feasibility Analysis and Performance of Real Estate Development Projects and Environmental Feasibility Analysis and Performance of Real Estate Development Projects

4.2 Questionnaire Return Rate

Questionnaire return rate is the proportion of the total questionnaires returned against total number of questionnaires administered. The results of questionnaire return rate has been presented in Table 4.1

Table 4.1: Questionnaire return rate

Questionnaires	Frequency	Percent (%)
Returned	105	89.74
Non-Response	12	10.26
Total Administered	117	100

As presented in Table 4.1, a total of 117(100%) questionnaires were self-administered to respondents while 105(89.74%) were returned for analysis and subsequently reported while 12(10.26%) were reported as non-responses. According to Cooper and Schindler (2011), at least 75% return rate is excellent for analysis. The study therefore met the threshold as it achieved a significant return rate of 89.74%.

4.3 Demographic Characteristics of Study Respondents

The study sought to enumerate the demographic information of the respondents in categories of gender, age, marital status and highest level of academic qualification. The results have been presented in Table 4.2

Table 4.2: Demographic Characteristics of Study Respondents

Demographic Information of Respondents		Frequency	Percent (%)
Gender	Male	63	60.00
	Female	42	40.00
	Total	105	100.00
Age	18-27	12	11.43
	28-37	17	16.19
	38-47	31	29.52
	48-57	27	25.71
	58-67	11	10.48
	Above 67	7	6.67
	Total	105	100.00
Marital status	Single	21	20.00
	Married	61	58.10
	Widowed	12	11.43
	Separated	9	8.57
	Other (Specify)	2	1.90
	Total	105	100.00
Highest level of academic qualification	Primary	8	7.62
	Secondary	17	16.19
	Certificate	24	22.86
	Diploma	29	27.62
	Degree	14	13.33
	Masters	9	8.57
	PhD	3	2.86
	Other (Specify)	1	0.95

Total

105

100.00

The results as presented in Table 4.3 are interpreted and discussed as follows;

Respondents were asked to enlist their gender, out of the 105 respondents who took part in the study, 63(60.00%) were male and 42(40.00%) were female. This was important to this study as a fairly proportionate gender shows an equal chance for both male and female to participate in real estate development projects. The study asked the respondents to give their ages brackets. This was important to the study as this would establish if there is diversity in age for those involved in real estate development project industry. 105 respondents who participated in the study stated their ages as follows; 12(11.43%) were between 18-27 years, 17(16.19%), were between 28-37 years, 31(29.52%) were between 38-47 years, 27(25.71%) were between 48-57 years, 11(10.48%) were between 58-67 years while 7(6.67%) were above 67 years of age. From the results, it can be deduced that majority of the stakeholders who are involved in real estate industry are between 38 to 47 years old with the rest either above 47 years of age. This implies that the study respondents were mature people who could articulate issues based on their understating as responsible adults without having to dependent on others to make rational decisions.

The study asked respondents give their marital status. This was important to the study as married citizens are viewed as mature and are probably allowed by the society to participate in in activities in various industries without prejudice. Out of the 105 respondents who participated in the study, 21(20.00%) were single, 61(58.10%) were married, 12(11.43%) were widowed, 9(8.57%) were separated while 2(1.90%) belonged to other category but did not specify. This implies that majority of the study respondents were married adults or at least had marriage relationships at some point in their life and were deemed fit to take part in the study as respondents.

Finally, the study sought to enlist the respondent's highest level of academic qualifications. This was important to the study because level of education determines the ability of individuals to read, comprehend and write, as well as take instructions as given on the questionnaire appropriately. Out of the 105 respondents who participated in the study, 8(7.62%) had attained primary level, 17(16.19%) Secondary level, 24(22.86%) Certificate level, 29(27.62%) Diploma

level, 14(13.33%) Degree level, 9(8.57%) Masters level, 3(2.86%) PhD level while another 1(0.95%) were in the 'Other' category. This implies that majority of the respondents were of high literacy levels and could appropriately understand and give responses on their own without any difficulty on self-administered questionnaire.

4.4 Performance of Real Estate Development Projects

The was to determine the level of Performance of Development of Real Estate Projects in Kisumu City. The results of descriptive statistics on Performance of Real Estate Projects are presented in Table: 4.3

Table: 4.3 Performance of Real Estate Development Projects

Item	Statements	Strongly Agree(5)	Agree (4)	Neutral(3)	Disagree(2)	Strongly Disagree(1)	Mean	SD
F1	There is a shorter sell-out period of real estate management projects in Kisumu City	18(17.14%)	3(2.9%)	6(5.71%)	42(40.00%)	36(34.29%)	2.29	1.412
F2	There is high occupancy rate of finished real estate development projects in Kisumu City	15(14.29%)	14(13.33%)	9(8.57%)	33(31.43%)	34(32.38%)	2.46	1.428
F3	Project completion period is short and within the schedule time	24(22.86%)	9(8.56%)	6(5.71%)	23(21.90%)	43(40.95%)	2.50	1.624
F4	Real Estate development Projects strictly adhere to specifications and regulations	22(20.95%)	4(3.81%)	9(8.57%)	33(31.43%)	37(35.24%)	2.44	1.519
F5	Cost Performance Index of the real estate development Projects is always less than one	9(8.57%)	9(8.57%)	1(0.95%)	45(42.86%)	41(39.05%)	2.05	1.236
Composite Mean and Composite SD							2.35	1.444

The results as presented in Table 4.3 are interpreted and discussed as follows;

Item F1 sought to determine if there is a shorter sell-out period of real estate management projects in Kisumu City. The 105 respondents answered to this question and gave their responses as follows; 18(17.14%) Strongly Agreed, 3(2.9%) Agreed, 6(5.71%) Neutral, 42(40.00%), Disagreed, while 36(34.29%), Strongly Disagreed. The statement scored a mean of 2.29 and 1.412 SD while the composite mean and composite SD scores respectively were 2.35 and 1.444. Majority of the respondents indeed indicated that the sell-out period could be long as the time the projects are completed and the time they are disposed-off to buyers would take several months and this impacts the industry negatively.

Item F2 sought to determine if there is high occupancy rate of finished real estate development projects in Kisumu City. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 15(14.29%), Strongly Agreed, 14(13.33%), Agreed, 9(8.57%) Neutral, 33(31.43%) Disagreed, while 34(32.38%), Strongly Disagreed. The statement scored a mean of 2.46 and 1.428 SD while the composite mean and composite SD scores respectively were 2.35 and 1.444. With the majority of the respondents indicating that there is low occupancy rate in real estate development projects in Kisumu City, it therefore means a low up-take level of real estate projects in the city

Item F3 sought to determine if Project completion period is short and within the schedule time. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 24(22.86%) Strongly Agreed, 9(8.56%) Agreed, 6(5.71%) Neutral, 23(21.90%) Disagreed, while 43(40.95%) Strongly Disagreed. The statement scored a mean of 2.50 and 1.624 SD while the composite mean and composite SD scores respectively were 2.35 and 1.444. Again absolute majority of the respondents confirmed that the projects are completed way beyond the schedule and this could be making the projects to incur additional cost associated with delays.

Item F4 sought to answer if real estate development projects strictly adhere to specifications and regulations. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 22(20.95%) Strongly Agreed, 4(3.81%) Agreed, 9(8.57%) Neutral, 33(31.43%) Disagreed, while 37(35.24%) Strongly Disagreed. The statement scored a mean of 2.44 and 1.519 SD while the composite mean and composite SD scores respectively were 2.35 and 1.444. It can be deduced from these findings that projects do not strictly adhere to specifications and regulations probably due to factors such as preferences by consumers or inadequate financial resources leading to compromises.

Item F5 sought to answer if cost performance index of the real estate development Projects is always less than one. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 9(8.57%) Strongly Agreed, 9(8.57%) Agreed, 1(0.95%) Neutral, 45(42.86%) Disagreed, while 41(39.05%) Strongly Disagreed. The statement scored a mean of 2.05 and 1.236 SD while the composite mean and composite SD scores respectively were 2.35 and 1.444. Absolute majority indicated that cost performance index is more than one which implies that most real estate development projects in Kisumu City experience cost overrun.

4.5 Financial Feasibility Analysis and Real Estate Projects Performance

The study's first research objective sought to examine the influence of financial feasibility analysis on performance of real estate projects in Kisumu, City. Table: 4.4 presents the results;

Table 4.4: Financial Feasibility and Real Estate Projects Performance

Item	Statements	Strongly Agree(5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree(1)	Mean	SD
B1	The cost of capital acquisition of capital for development of real estate development projects is reasonable	12(11.43%)	6(5.71%)	14(13.33%)	42(40.00%)	31(29.52%)	2.30	1.270
B2	There are several sources of real estate development projects' funding	14(13.33%)	9(8.57%)	12(11.43%)	42(40.00%)	28(26.67%)	2.42	1.329
B3	The break-even period for real estate development projects is shorter	11(10.48%)	8(7.62%)	10(9.52%)	34(32.38%)	42(40.00%)	2.16	1.316
B4	Securitization process of real estate Projects is not unreasonably bureaucratic	17(16.19%)	47(44.76%)	10(9.52%)	21(20.00%)	10(9.52%)	3.38	1.243
B5	There is ease of accessibility to finance real estate development projects	11(10.48%)	7(6.67%)	12(11.43%)	39(37.14%)	36(34.29%)	2.22	1.278
Composite Mean and Composite Standard Deviation							2.50	1.287

The results as presented in Table 4.4 are interpreted and discussed as follows;

Item B1 sought to examine if the cost of capital acquisition of capital for development of real estate development projects is reasonable. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 12(11.43%) Strongly Agreed, 6(5.71%) Agreed, 14(13.33%) Neutral, 42(40.00%) Disagreed, while 31(29.52%) Strongly Disagreed. The statement scored a mean of 2.30 and 1.270 SD while the composite mean and composite SD scores respectively were 2.50 and 1.287. This is an indication that majority indicated that the cost of capital acquisition in real estate development was not reasonable and thus could be too expensive across the lending companies making real estate development projects expensive.

Item B2 sought to examine if there are several sources of real estate development projects' funding. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 14(13.33%) Strongly Agreed, 9(8.57%) Agreed, 12(11.43%) Neutral, 42(40.00%) Disagreed, while 28(26.67%) Strongly Disagreed. The statement scored a mean of 2.42 and 1.329 SD while the composite mean and composite SD scores respectively were 2.50 and 1.287. Absolute number of the respondents contended that there are limited sources of real estate development funding and this must be having a negative impact in the industry as their might not be any competitive pricing by the real estate development lenders.

Item B3 sought to examine if the break-even period for real estate development projects is shorter. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 11(10.48%) Strongly Agreed, 8(7.62%) Agreed, 10(9.52%) Neutral, 34(32.38%) Disagreed, while 42(40.00%) Strongly Disagreed. The statement scored a mean of 2.16 and 1.316 SD while the composite mean and composite SD scores respectively were 2.50 and 1.287. This statement polled the lowest mean among the other statements of the variable, indicating that real estate development projects' break even period in Kisumu City could be very long and this is definitely negatively affecting the industry

Item B4 sought to examine if securitization process of real estate Projects is not unreasonably bureaucratic. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 17(16.19%) Strongly Agreed, 47(44.76%) Agreed, 10(9.52%) Neutral, 21(20.00%) Disagreed, while 10(9.52%) Strongly Disagreed. The statement scored a mean of 3.38 and 1.243 SD while the composite mean and composite SD scores respectively were 2.50 and 1.287. From the respondents' view, the securitization process is thus unreasonably bureaucratic and requires the borrowers in real estate development projects to undergo rigorous processes which might sometimes delay the process of capital acquisition and subsequently negatively impact in the industry

Item B5 sought to examine if there is ease of accessibility to finance real estate development projects. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 11(10.48%) Strongly Agreed, 7(6.67%) Agreed, 12(11.43%) Neutral, 39(37.14%) Disagreed, while 36(34.29%) Strongly Disagreed. The statement scored a mean of 2.22 and 1.278 SD while the composite mean and composite SD scores respectively were 2.50 and 1.287. These responses are a clear indication that accessing funding to finance real

estate development project could be a tall order in Kisumu City as well as a frustrating experience and this probably provides possible explanations for the low up-take of the projects in the City.

Qualitative data was collected using interview guide on Financial Feasibility Analysis and Performance of Real Estate Projects the results are as presented by the following verbatim;

“The cost of acquiring finances with most commercial banks in Kenya for real estate development is very high and in most cases securitization process is exceptionally so complex and this is a major impediment to real estate development”. **KIII**

4.5.1 Correlation Analysis between Financial Feasibility Analysis and Performance of Real Estate Projects

Correlation analysis was computed by SPSS to establish the existing levels of association between financial feasibility analysis and performance of real estate development projects. Output Table 4.5 presents the results as follows;

Table 4.5: Correlation Analysis between Financial Feasibility Analysis and Real estate projects performance

Variable		Financial Feasibility	Performance of Real Estate Development Projects
Financial Feasibility	Pearson’ Correlation	1	0.309**
	Sig. (two-tailed test)		0.001
	N	105.	105
Performance of Real Estate Development Projects	Pearson’ Correlation	0.309**	1
	Sig. (two-tailed test)	0.001.	
	N	105	105

**** Correlation, significant at 0.05 level (two-tailed test)**

The results in output Table 4.5 suggests an existence of a significant moderate strong positive correlation between financial feasibility analysis and performance of real estate projects , (r=0.309; P<0.001). The explanation here can be given as follows; Financial Feasibility Analysis has got a significant effect on Performance of Real Estate Projects because money is required to fund the projects and a cheaper cost of capital acquisition leads to a relatively cheaper project

while an expensive cost of capital acquisition leads to inflated project cost. This cost however will be passed down to the real estate project customers and will be reflected on the final product. The findings validated findings by Morano and Tajani, (2015) who also reported that real development prices are highly dependent on the cost of development and any additional cost beyond the budgeted cost will be reflected on the property price after development and completion

4.5.2 Model Summary between Financial Feasibility Analysis and Performance of Real Estate Projects

Model Regression Summary was used to establish the degree of relationships between Financial Feasibility analysis and performance of real estate projects. The results have been presented in Table 4.6

Table 4.6: Model Summary between Financial Feasibility Analysis and Performance of Real Estate Projects

Model	R	R-Square	Adjusted R- Square	Standard Error of the Estimate
1	0.309 ^a	0.096	0.087	1.350

a. Predictors: (Constant), Financial Feasibility

b. Criterion Variable: Performance of Real Estate Projects

The result as presented in Table 4.6 indicates that a unit increase in Real Estate Projects Performance can be predicted by 9.6% increase in financial feasibility analysis. It can thus be deduced that financial feasibility analysis is significant in determining the real estate projects performance and therefore conducting a proper and intensive financial feasibility analysis would thus lead to better project real estate projects performance as project decisions would be based on facts and not hypotheses.

4.5.3 Regression ANOVA between Financial Feasibility Analysis and Performance of Real Estate Projects

Regression ANOVA was run on SPSS and computed to determine the degree of relationships between Financial Feasibility Analysis and Real Estate Projects Performance The results have been presented in Table 4.7

Table 4.7: Regression ANOVA between Financial Feasibility Analysis and Real estate projects performance

Model		Sum of Squares	Df	Mean Squares	F	Sig.
1	Regression	19.843	1	19.843	10.896	0.001 ^a
	Residual	187.585	103	1.821		
	Total	207.429	104			

c. Predictors: (Constant), Financial Feasibility

d. Criterion Variable: Real Estate Projects Performance

The ANOVA results of the F statistics as presented in Table 4.7 where $p < 0.001$ as compared to the common $\alpha = 0.05$ is less and therefore statistically significant. It can therefore be deduced that financial feasibility analysis is significant in influencing Performance of real estate development projects. This is comparable to the findings by Morano and Tajani, (2015) whose findings equally suggested that real development prices are highly dependent on the cost of development and any additional cost beyond the budgeted cost will be reflected on the property price after development and completion

4.5.4 Regression Coefficients between Financial Feasibility Analysis and Real estate projects performance

Regression Coefficients analysis was used to establish the identifiable extent of relationships that exists between financial feasibility analysis and Real Estate Projects Performance. Table: 4.8 presents the results;

Table 4.8 Regression Coefficients between Financial Feasibility Analysis and Real Estate Projects Performance

Model	Unstandardized coefficients		standardized coefficients	T	Sig.
	B	Std. Err	Beta		
1					
1(Constant)	1.320	0.321		4.113	0.000
Financial Feasibility	0.291	0.088	0.309	3.301	0.001

Predictors: (Constant), Financial Feasibility

Criterion Variable: Real Estate Projects Performance

The t-test results as presented in Table 4.8 indicates that financial feasibility analysis is statistically significant in predicting Real Estate Projects Performance since $p < 0.001$ is less than

the common $\alpha=0.05$ at 95% confidence interval and therefore statistically significant. Financial feasibility analysis is an important factor that determines Real Estate Projects Performance since there is identifiable established significant degree of association between the two as predictor and criterion variable respectively.

4.6 Economic Feasibility Analysis Real estate projects performance

The study's second research objective sought to assess; influence of economic feasibility analysis on real estate projects performance in Kisumu City. The results of descriptive statistics are presented in Table 4.9

Table 4.9: Economic Feasibility Analysis and Real estate projects performance

Item	Statements	Strongly Agree(5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree(1)	Mean	SD
C1	High inflation rates negatively affect real estate development projects	31(29.52%)	51(48.57%)	7(6.67%)	12(11.43%)	4(3.81%)	3.89	1.077
C2	Prohibitive taxation regimes negatively affect real estate development projects in Kisumu City	48(45.71%)	41(39.05%)	7(6.67%)	7(6.67%)	2(1.90%)	4.20	0.965
C3	Low currency strengths and exchange rates negatively influence real estate development projects in Kisumu City	32(30.48%)	22(20.95%)	10(9.52%)	23(21.90%)	18(17.14%)	3.26	1.513
C4	Kisumu City has high land rates that make real estate development projects expensive affair	28(4.84%)	45(12.10%)	7(20.16%)	19(38.71%)	6(24.19%)	3.67	1.214
C5	High rate of asset depreciation in real estate development projects negatively impacts the industry	30(28.57%)	39(37.14%)	9(8.57%)	16(15.24%)	11(10.48%)	3.58	1.329
Composite Mean and Composite SD							3.72	1.220

The results as presented in Table 4.9, are interpreted and discussed as follows

Item C1 sought to assess if high inflation rates negatively affect real estate development projects. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 31(29.52%) Strongly Agreed, 51(48.57%) Agreed, 7(6.67%) Neutral, 12(11.43%) Disagreed, while 4(3.81%) Strongly Disagreed. The statement scored a mean of 3.89 and 1.077 SD while the composite mean and composite SD scores respectively were 3.72 and 1.220. The absolute majority of the respondents indeed agreed with the statement and thus real estate development industry must be feeling the negative impacts of the high inflation rates in the country.

Item C2 sought to assess if prohibitive taxation regimes negatively affect real estate development projects in Kisumu City. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 48(45.71%) Strongly Agreed, 41(39.05%) Agreed, 7(6.67%) Neutral, 7(6.67%) Disagreed, while 2(1.90%) Strongly Disagreed. The

statement scored a mean of 4.20 and 0.965 SD while the composite mean and composite SD scores respectively were 3.72 and 1.220. It seems taxation regimes in the real estate industry is thus very prohibitive judging by absolute majority consented to the statement. It thus calls for the government to review its tax policy to stimulate growth in the industry.

Item C3 sought to assess if low currency strengths and exchange rates negatively influence real estate development projects in Kisumu City. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 32(30.48%) Strongly Agreed, 22(20.95%) Agreed, 10(9.52%) Neutral, 23(21.90%) Disagreed, while 18(17.14%) Strongly Disagreed. The statement scored a mean of 3.26 and 1.513 SD while the composite mean and composite SD scores respectively were 3.72 and 1.220. The majority of respondents the respondents again agreed with the statement an indication that forex exchange in an important factor in real estate development industry especially if the developers get their funding from outside the country or do import of materials from foreign countries.

Item C4 sought to assess if Kisumu City has high land rates that make real estate development projects expensive affair. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 28(4.84%) Strongly Agreed, 45(12.10%) Agreed, 7(20.16%) Neutral, 19(38.71%) Disagreed, while 6(24.19%) Strongly Disagreed. The statement scored a mean of 3.67 and 1.214 SD while the composite mean and composite SD scores respectively were 3.72 and 1.220. The responses as elicited by the statement confirms that indeed high land rates in Kisumu City indeed make real estate development and expensive affair and these should also be reviewed by the government to spur growth in the industry

Item C5 sought to assess if high rate of asset depreciation in real estate development projects negatively impacts the industry. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 30(28.57%) Strongly Agreed, 39(37.14%) Agreed, 9(8.57%) Neutral, 16(15.24%) Disagreed, while 11(10.48%) Strongly Disagreed. The statement scored a mean of 3.58 and 1.164 SD while the composite mean and composite SD scores respectively were 3.72 and 1.220. The responses are thus a testament to the fact that depreciation of real estate development projects due to environmental factors as well as prevailing economic situations sometimes make the projects to depreciate in value thus unable to fetch maximum price in the market

Qualitative data was collected using interview guide on Economic Feasibility Analysis and Real estate projects performance the results are as presented by the following verbatim;

“Our economy is very fragile and in most cases experience recession. So from the time of project inception to completion, about 20% of the project total cost will be incurred due to inflation and unstable economy”. **KII2**

4.6.1 Correlation Analysis between Economic Feasibility Analysis and Performance of Real Estate Development Projects

Correlation analysis was computed by SPSS to establish the existing levels of association between economic feasibility analysis and performance of real estate development projects. Output Table 4.10 presents the results as follows;

Table 4.10: Correlation Analysis between Economic Feasibility Analysis and Real Estate Projects Performance

Variable		Economic Feasibility	Performance of Real Estate Development Projects
Economic Feasibility	Pearson' Correlation	1	0.253**
	Sig. (two-tailed test)		0.009
	n	105	105
Performance of Real Estate Development Projects	Pearson' Correlation	0.253**	1
	Sig. (two-tailed test)	0.009	
	n	105	105

**** Correlation significant at 0.05 level (two-tailed test)**

The results in output Table 4.10 suggests an existence of a significant weak positive correlation between economic feasibility analysis and real estate projects performance , ($r=0.253$; $p<0.009$). The explanation here can be given as follows; economic feasibility analysis determines if the prevailing economic situation in a country is favourable and thus is stable enough to remain failing enough not to significantly negatively impact on the construction inputs throughout the project period. high inflation rates would have a negative impact on the real estate development projects and thus subsequently would affect their Performance. similar findings were reported by Giudice, &De Paola, (2018) who also indicated that economic feasibility evaluation significantly

enhances performance of real estate projects as the firms are able to predict and understand the prevailing economic dynamics before deciding to undertake an investment.

4.6.2 Model Summary between Economic Feasibility Analysis and Performance of Real Estate Development Projects

Model Regression Summary was used to establish the degree of relationships between Economic Feasibility Analysis and real estate projects performance. Table 4.11 presents the results

Table 4.11: Model Summary between Economic Feasibility Analysis and Real estate projects performance

Model	R	R-Square	Adjusted R- Square	Standard Error of the Estimate
1	0.253 ^a	0.064	0.055	1.373

Criterion Variable: Performance of Real Estate Development Projects
 Predictor: (Constant) Economic Feasibility

The result as presented in Table 4.11 indicates that a unit increase in real estate projects performance can be predicted by 6.4% increase in economic feasibility analysis. It can thus be deduced that economic feasibility analysis is significant in determining the real estate projects performance and therefore undertaking elaborate and comprehensive economic feasibility analysis would lead to enhanced project real estate projects performance since potential negative effects of harsh economic environments would be projected, predicted and mitigated.

4.6.3 Regression ANOVA between Economic Feasibility Analysis and Performance of Real Estate Development Projects

Regression ANOVA was run on SPSS and computed to determine the degree of relationships between Economic Feasibility Analysis and Performance of Real Estate Development Projects. Table 4.12 presents the results;

Table 4.12: Regression ANOVA between Economic Feasibility Analysis and Real estate projects performance

Model		Sum of Squares	Df	Mean Squares	F	Sig.
1	Regression	13.261	1	13.261	7.035	0.009 ^a
	Residual	194.167	103	1.885		
	Total	207.429	104			

Criterion Variable: Performance of Real Estate Development Projects

Predictor: (Constant) Economic Feasibility

The ANOVA results of the F statistics as presented in Table 4.12 where $p < 0.009$ as compared to the common $\alpha = 0.05$ is less and therefore stated to be statistically significant. It can thus be deduced that economic feasibility analysis is significant in influencing performance of real estate development projects. This corroborates the finding by Bernhold, Latuch, and Riemenschneider, (2014) who also reported that project environment economic dimension is significant in influencing its performance

4.6.4 Regression Coefficients between Economic Feasibility Analysis and Performance of Real Estate Development Projects

Regression Coefficients analysis was used to establish the identifiable degree of relationships that exists between economic feasibility analysis and performance of real estate development Projects. Table 4.13 presents the results;

Table 4.13: Regression Coefficients between Economic Feasibility Analysis and Performance of Real Estate Development Projects

Model	Unstandardized coefficients		standardized coefficients	T	Sig.
	B	Std. Err	Beta		
1					
1(Constant)	1.644	0.276		5.948	0.000
Economic Feasibility	0.260	0.098	0.253	2.652	0.009

Criterion Variable: Performance of Real Estate Development Projects

Predictor: (Constant) Economic Feasibility

The t-test results as presented in Table 4.13 indicates that economic feasibility analysis is statistically significant in predicting real estate projects performances since $p < 0.009$ is less than

the common $\alpha=0.05$ at 95% confidence interval and therefore statistically significant. Economic feasibility analysis is thus critical factor that determines real estate projects performancesince there is identifiable significant established degree of association between the two as predictor and criterion variable respectively.

4.7 Market Feasibility Analysis and Real Estate Development Projects Performance

The study's objective three assessed; influence of market feasibility analysis on real estate projects performance in Kisumu City. Table 4.14 presents the results

Table 4.14 Market Feasibility Analysis and Real Estate Development Projects Performance

Item	Statements	Strongly Agree(5)	Agree(4)	Neutral (3)	Disagree(2)	Strongly Disagree(1)	Mean	SD
D1	There is unhealthy competition in real estate development projects industry	29(27.62%)	23(21.90%)	22(20.95%)	21(20.00%)	10(9.52%)	3.38	1.333
D2	There is low demand for real estate assets in Kisumu City	33(31.43%)	48(45.71%)	7(6.67%)	12(11.43%)	5(4.76%)	3.88	1.124
D3	The population of Kisumu City has got low income levels and that affects their purchasing power of real estate developed projects	40(38.10%)	34(32.38%)	7(6.67%)	14(13.33%)	10(9.52%)	3.76	1.341
D4	Customers prefer to develop their own project rather than buy ready housing in the market	30(28.57%)	44(41.90%)	7(6.67%)	14(13.33%)	10(9.52%)	3.67	1.284
D5	Customers prefer cheaper alternative than purchase completed Projects	34(32.38%)	42(40.00%)	3(2.86%)	15(14.29%)	11(10.48%)	3.70	1.338
Composite Mean and Composite Standard Deviation							3.68	1.284

The results as presented in Table 4.14 are interpreted and discussed as follows;

Item D1 sought to determine if there is unhealthy competition in real estate development projects industry. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 29(27.62%) Strongly Agreed, 23(21.90%) Agreed, 22(20.95%) Neutral, 21(20.00%) Disagreed, while 10(9.52%) Strongly Disagreed. The statement scored a mean of 3.38 and 1.333 SD while the composite mean and composite SD scores respectively were 3.68 and 1.284. With the majority of the respondents consenting to the statement than those who thought otherwise, we can deduce that there could be unhealthy competition between different firms in the real estate development industry and probably lack of regulatory framework to streamline operations in the industry.

Item D2 sought to determine if there is low demand for real estate assets in Kisumu City. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 33(31.43%) Strongly Agreed, 48(45.71%) Agreed, 7(6.67%) Neutral, 12(11.43%) Disagreed, while 5(4.76%) Strongly Disagreed. The statement scored a mean of 3.88 and 1.124 SD while the composite mean and composite SD scores respectively were 3.68 and 1.284. The responses confirm that indeed there is a low demand for real estate development projects in Kisumu City and this could be due to low income levels and high cost of real estate development projects.

Item D3 sought to determine if the population of Kisumu City has got low income levels and that affects their purchasing power of real estate developed projects. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 40(38.10%) Strongly Agreed, 34(32.38%) Agreed, 7(6.67%) Neutral, 14(13.33%) Disagreed, while 10(9.52%) Strongly Disagreed. The statement scored a mean of 3.76 and 1.341 SD while the composite mean and composite SD scores respectively were 3.68 and 1.284. This indeed confirms that Kisumu City residents have got low income levels and this influences their purchasing power for the real estate development projects as majority of the residents could be jobless or employed in the informal sector.

Item D4 sought to determine if customers prefer to develop their own project rather than buy ready housing in the market. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 30(28.57%) Strongly Agreed, 44(41.90%) Agreed, 7(6.67%) Neutral, 14(13.33%) Disagreed, while 10(9.52%), Strongly Disagreed. The statement scored a mean of 3.67 and 1.284 SD while the composite mean and composite SD scores respectively were 3.68 and 1.284. There could be low uptake of real estate development projects in Kisumu City as majority of the respondents indeed confirmed that in Kisumu City, construction by residents is preferred over purchasing ready-made housing from the market

Item D5 sought to determine if customers prefer cheaper alternative than purchase completed Projects. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 34(32.38%) Strongly Agreed, 42(40.00%) Agreed, 3(2.86%) Neutral, 15(14.29%) Disagreed, while 11(10.48%) Strongly Disagreed. The statement scored a mean of 3.70 and 1.338 SD while the composite mean and composite SD scores respectively

were 3.68 and 1.284. This can be interpreted to mean that majority of the respondents prefer cheaper alternatives to developed real estate projects.

Qualitative data was collected using interview guide on Market feasibility analysis and real estate projects performance the results are as presented by the following verbatim;

“Finding ready market for real estate development project is a major challenge as completed projects can stay as long as 1 year or even more before being disposed -off to recover the project cost and some little return on the investment”. **KII3**

4.7.1 Correlation Analysis between Market Feasibility Analysis and Real Estate Projects Performance

Correlation analysis was computed by SPSS to establish the existing levels of association between market feasibility analysis and real estate development projects performance. Output Table 4.15 presents the results as follows;

Table 4.15: Correlation Analysis between Market Feasibility Analysis and Real estate projects performance

Variable		Market Feasibility	Performance of Real Estate Development Projects
Market Feasibility	Pearson' Correlation	1	0.302**
	Sig. (2-tailed)		0.002
	N	105	105
Performance of Real Estate Development Projects	Pearson' Correlation	0.302**	1
	Sig. (2-tailed)	0.002	
	n	105	105

**** Correlation, significant at 0.05 level two-tailed test**

The results in output Table 4.15 suggests an existence of a significant moderately strong positive correlation between market feasibility analysis and real estate projects performance, ($r=0.302$; $p<0.002$). The explanation can hereby be given as follows; high demand and ready market for real estate development would result into significantly enhanced real estate projects performance as the projects are developed and customers readily able to purchase and assume occupancy. on the other hand, lack of ready market would mean that the projects would take a longer time after completion making the project proponent not to meet their obligations of

repaying their credit sources. Karanja and Mwathi, (2017), reported similar findings that revealed that performance of real estate development in Kenya is highly dependent on market forces of demand and supply as disposing the real estate products when the demand is low impacts negatively on the profitability of real estate firms.

4.7.2 Model Summary between Market Feasibility Analysis and Real estate projects performance

Model Regression Summary was used to establish the degree of relationships between Market Feasibility Analysis and Real Estate Projects Performance. Output Table: 4.16 presents the results

Table 4.16: Model Summary between Market Feasibility Analysis and Real Estate Projects Performance

Model	R	R-Square	Adjusted R- Square	Standard Error of the Estimate
1	0.302 ^a	0.091	0.082	1.376

Criterion Variable: Real Estate Projects Performance
 Predictor: (Constant) Market Feasibility

The results as presented in Table 4.16 indicate that a unit increase in real estate projects performance can be predicted by 9.1% increase in market feasibility analysis. It can thus be deduced that market feasibility analysis is significant in determining the real estate projects performance and therefore proper market research and analysis would provide the necessary information on market trends and dynamics to positively impact on project performance of real estate development projects.

4.7.3 Regression ANOVA between Market Feasibility Analysis and Real estate projects performance

Regression ANOVA was run on SPSS and computed to determine the degree of relationships between Market Feasibility Analysis and Performance of Real Estate Development Projects. The results have been presented in Table 4.17

Table 4.17: Regression ANOVA between Market Feasibility Analysis and Real estate projects performance

Model		Sum of Squares	Df	Mean Squares	F	Sig.
1	Regression	19.519	1	19.519	10.304	0.002 ^a
	Residual	195.109	103	1.894		
	Total	214.629	104			

a. Predictors: (Constant), Market Feasibility

b. Criterion Variable: Performance of Real Estate Development Projects

The ANOVA results of the F statistics as presented in Table 4.17 where $p < 0.002$ as compared to the common $\alpha = 0.05$ is less and therefore statistically significant. It can therefore be deduced that market feasibility analysis is significant in influencing performance of real estate development projects. This confirms the findings by Karanja and Mwathi, (2017) who similarly reported that performance of real estate development in Kenya is highly dependent on market forces of demand and supply as disposing the real estate products when the demand is low impacts negatively on the profitability of real estate firms

4.7.4 Regression Coefficients between Market Feasibility Analysis and Real estate projects performance

Regression Coefficients analysis was used to establish the identifiable degree of relationships that exists between market feasibility analysis and performance of real estate development projects. The results have been presented in Table 4.18

Table 4.18: Regression Coefficients between Market Feasibility Analysis and Real estate projects performance

Model	Unstandardized		standardized	T	Sig.
	coefficients		coefficients		
1	B	Std. Err	Beta		
1(Constant)	1.500	0.287		5.228	0.000
Market Feasibility	0.292	0.091	0.302	3.210	0.002

Predictors: (Constant), Market Feasibility

Criterion Variable: Performance of Real Estate Development Projects

The t-test results as presented in Table 4.18 indicates that market feasibility analysis is statistically significant in predicting real estate projects performances since $p < 0.002$ is less than the common $\alpha = 0.05$ at 95% confidence interval and therefore statistically significant. Economic feasibility analysis is thus critical factor that determines real estate projects performances since there is identifiable established significant degree of association between the two as predictor and criterion variable respectively.

4.8 Environmental Feasibility Analysis Real estate projects performance

The study's fourth research question sought to answer; how does Environmental Feasibility Analysis influence Real estate projects performance in Kisumu City, Kenya?

The results of descriptive statistics on project Monitoring and Evaluation and Real estate projects performance are presented in Table 4.19

Table 4.19: Environmental Feasibility Analysis Real estate projects performance

Item	Statements	Strongly Agree(5)	Agree(4)	Neutral (3)	Disagree(2)	Strongly Disagree(1)	Mean	SD
E1	Building material are cheaply and readily available within Kisumu City and its environs	19(18.10%)	23(21.90%)	11(10.48%)	33(31.43%)	19(18.10%)	2.90	1.411
E2	Real estate firms enjoy readily available support infrastructure such as roads and other transport networks	13(12.38%)	33(31.43%)	5(4.76%)	46(43.81%)	8(7.62%)	2.97	1.252
E3	weather and climate conditions affects demand for real estate projects	14(13.33%)	10(9.52%)	15(14.29%)	40(38.10%)	26(24.76%)	2.49	1.324
E4	Real estate development areas enjoy good safety and security and thus attract customers	19(18.10%)	21(20.00%)	12(11.43%)	35(33.33%)	18(17.14%)	2.89	1.396
E5	There is easy of accessibility of real estate development sites from Kisumu City Centre	17(16.19%)	15(14.29%)	6(5.71%)	41(39.05%)	26(24.76%)	2.58	1.420
Composite Mean and Composite Standard Deviation							2.77	1.361

The results as presented in Table 4.19 are interpreted and discussed as follows;

Item E1 sought to establish if building material are cheaply and readily available within Kisumu City and its environs. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 19(18.10%) Strongly Agreed, 23(21.90%) Agreed, 11(10.48%) Neutral, 33(31.43%) Disagreed, while 19(18.10%) Strongly Disagreed. The statement scored a mean of 2.90 and 1.411 SD while the composite mean and composite SD scores respectively were 2.77 and 1.361. This is an indication that majority of the respondents were of the opinion that building and construction materials are not readily available in Kisumu City and its environs and therefore their acquisition from elsewhere might be expensive

Item E2 sought to establish if real estate firms enjoy readily available support infrastructure such as roads and other transport networks The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 13(12.38%) Strongly Agreed, 33(31.43%) Agreed, 5(4.76%) Neutral, 46(43.81%) Disagreed, while 8(7.62%) Strongly Disagreed. The statement scored a mean of 2.97 and 1.252 SD while the composite mean and

composite SD scores respectively were 2.77 and 1.361. This is an indication that marginal majority disagreed that real estate development firms enjoy readily available infrastructure. Therefore, the infrastructure available might not be sufficient and real estate development companies must contend with improving the available infrastructure alongside their real estate development projects which might be very costly

Item E3 sought to establish if weather and climate conditions affects demand for real estate projects. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 14(13.33%) Strongly Agreed, 10(9.52%) Agreed, 15(14.29%) Neutral, 40(38.10%) Disagreed, while 26(24.76%) Strongly Disagreed. The statement scored a mean of 2.49 and 1.324 SD while the composite mean and composite SD scores respectively were 2.77 and 1.361. Since majority of the respondents disagreed with the statement it therefore implies that weather and climatic conditions is not a significant factor that affects the demand of real estate development projects in Kisumu City.

Item E4 sought to establish if real estate development areas enjoy good safety and security and thus attract customers. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 19(18.10%) Strongly Agreed, 21(20.00%) Agreed, 12(11.43%) Neutral, 35(33.33%) Disagreed, while 18(17.14%) Strongly Disagreed. The statement scored a mean of 2.89 and 1.396 SD while the composite mean and composite SD scores respectively were 2.77 and 1.361. Majority of the respondents disagreed with the statement and indication there is no guaranteed safety and security in the real estate development project areas.

Item E5 sought to establish if there is easy of accessibility of real estate development sites from Kisumu City Centre. The 105 respondents who positively and willingly were the study participants reported on the statements as follows; 17(16.19%) Strongly Agreed, 15(14.29%) Agreed, 6(5.71%) Neutral, 41(39.05%) Disagreed, while 26(24.76%) Strongly Disagreed. The statement scored a mean of 2.58 and 1.420 SD while the composite mean and composite SD scores respectively were 2.77 and 1.361. From these findings, it can be deduced that majority find it hard to access the real estate development sites from the City Centre due to bad roads and access routes and this could seriously be affecting their demand.

Qualitative data was collected using interview guide on Environmental Feasibility Analysis and Real estate projects performance the results are as presented by the following verbatim;

“Suitable environment with existing infrastructure stimulates the growth of real estate development as most people are attracted by social amenities, good road networks and related infrastructure. Putting up such infrastructure alongside real estate development projects are extremely costly and renders real estate projects in some parts of Kisumu City unsustainable”. **KII4**

4.8.1 Correlation Analysis between Environmental Feasibility Analysis and Performance of Real Estate Development Projects

Correlation analysis was computed by SPSS to establish the existing levels of association between Environmental Feasibility Analysis and Performance of Real Estate Development Projects. Output Table 4.20 presents the results as follows;

Table 4.20: Correlation Analysis between Environmental Feasibility Analysis and Real estate projects performance

Variable		Environmental Feasibility Analysis	Performance of Real Estate Development Projects
Environmental Feasibility Analysis	Pearson' Correlation	1	0.260**
	Sig. (2-tailed)		0.007
	n	105	105
Performance of Real Estate Development Projects	Pearson' Correlation	0.260**	1
	Sig. (2-tailed)	0.007	
	n	105	105

**** Correlation significant at 0.05 level (two-tailed test)**

The results in output Table 4.20 suggests an existence of a significant weak positive correlation between environmental feasibility analysis and real estate projects performance, ($r=0.260$; $p<0.007$). The explanation here can be given as follows; environmental feasibility analysis is important in determining the availability of support infrastructure which is important because an already opened up area with existing social amenities is more favourable for habitation than undeveloped and opened areas. It is also cheaper to put up real estate development projects in an area with favourable environmental conditions compared to an area with non-favourable one.

The findings corroborate findings by Jo, Lee, Suh, Kim and Park (2015) and Halil, Hassan, and Nasir, (2016) who also reported that an area with already existing infrastructure is cheaper and convenient for the real estate development infrastructure.

4.8.2 Model Summary between Environmental Feasibility Analysis and Performance of Real Estate Development Projects

Model Regression Summary was used to establish the degree of relationships between Environmental Feasibility Analysis and Performance of Real Estate Development Projects. The results have been presented in Table 4.21

Table 4.21: Model Summary between Environmental Feasibility Analysis and Real estate projects performance

Model	R	R-Square	Adjusted R- Square	Standard Error of the Estimate
1	0.260 ^a	0.068	0.059	0.394

Predictor: (Constant) Environmental Feasibility Analysis
 Criterion Variable: Performance of Real Estate Development Projects

The results as presented in Table 4.21 indicate that a unit increase in real estate projects performance can be predicted by 6.8% increase in environment feasibility analysis. It can thus be deduced that environment feasibility analysis is significant in determining the real estate projects performance and therefore undertaking environment and social impact assess and analysis is an important activity in real estate development projects as this would ensure conformity to environmental guidelines and provide information on availability of resources and amenities within the project development areas.

4.8.3 Regression ANOVA between Environmental Feasibility Analysis and Real estate projects performance

Regression ANOVA was run on SPSS and computed to determine the degree of relationships between Environmental Feasibility Analysis and Performance of Real Estate Development Projects. The results have been presented in Table 4.22

Table 4.22: Regression ANOVA between Environmental Feasibility Analysis and Real estate projects performance

Model		Sum of Squares	Df	Mean Squares	F	Sig.
1	Regression	14.559	1	14.559	7.495	0.007 ^a
	Residual	200.070	103	1.942		
	Total	214.629	104			

a. Dependent Variable: Performance of Real Estate Development Projects

b. Predictors: (Constant), Environmental Feasibility Analysis

The ANOVA results of the F statistics as presented in Table 4.22 where $p < 0.007$ as compared to the common $\alpha = 0.05$ is less and therefore statistically significant. It can therefore be deduced that environmental feasibility analysis is significant in influencing performance of real estate development projects. This validates the findings Kim and Park (2015) and Halil, Hassan, and Nasir, (2016) who also reported similar findings about the relationships between environment feasibility and performance of real estate development projects.

4.8.4 Regression Coefficients between Environmental Feasibility Analysis and Real estate projects performance

Regression Coefficients analysis was used to establish the identifiable degree of relationships that exists between environmental feasibility analysis and Performance of Real Estate Development Projects. The results have been presented in Table 4.23

Table 4.23: Regression Coefficients between Environmental Feasibility Analysis and Performance of Real Estate Development Projects

Model	Unstandardized coefficients		standardized coefficients	T	Sig.
1	B	Std. Err	Beta		
1(Constant)	1.568	0.305		5.144	0.000
Environmental Feasibility Analysis	0.265	0.097	0.260	2.738	0.007

a. Dependent Variable: Performance of Real Estate Development Projects

b. Predictors: (Constant), Environmental Feasibility Analysis

The t-test results as presented in Table 4.23 indicates that market feasibility analysis is statistically significant in predicting real estate projects performances since $p < 0.007$ is less than the common $\alpha = 0.05$ at 95% confidence interval and therefore statistically significant. Environmental feasibility analysis is thus significant factor that determines real estate projects performances since there is identifiable established significant degree of association between the two as predictor and criterion variable respectively. Environmental regulations have to be complied with before initiation of real estate development project activities as the cost of litigation due to non-compliance can be heavy and significantly affect the project cost.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter presents the study's summary of key findings on: how financial feasibility analysis influence performance of real estate development projects, how economic feasibility analysis influence performance of real estate development projects, how market feasibility analysis influence real estate projects performance and how environmental feasibility analysis influence performance of real estate development projects. the chapter also presents conclusions, recommendations, suggestions for further research and the study's contribution to the body of knowledge

5.2 Summary of the Study's Key Findings

The purpose of the study was to establish the influence of feasibility analysis on real estate projects performance in Kisumu City, Kenya. The study also sought to fulfill following objectives: To examine how financial feasibility analysis influences real estate projects performance in Kisumu City, to assess how economic feasibility analysis influences real estate projects performance in Kisumu City, to determine how market feasibility analysis influences real estate projects performance in Kisumu City, and to establish how environmental feasibility analysis influence real estate projects performance in Kisumu City

5.2.1 Financial Feasibility Analysis and Real estate projects performance

To fulfill objective one, the study sought to examine how financial feasibility analysis influences real estate projects performance in Kisumu city. The study reported a significant moderately strong positive correlation between financial feasibility analysis and real estate projects performance, ($r=0.309$; $P<0.001$). Composite Mean and SD 250; 1.287

5.2.2 Economic Feasibility Analysis and Real estate projects performance

To fulfill objective two, the study sought to assess how economic feasibility analysis influences real estate projects performance in Kisumu city. The study reported a significant weak positive

correlation between economic feasibility analysis and real estate projects performance, ($r=0.253$; $p<0.009$), Composite Mean and SD 3.68; 1.284

5.2.3 Market Feasibility Analysis and Real estate projects performance

To fulfill objective three, the study sought to determine how market feasibility analysis influences real estate projects performance in Kisumu city. The study has reported a significant moderately strong positive correlation between market feasibility analysis and real estate projects performance, ($r=0.302$; $p<0.002$). Composite Mean and SD 3.68; 1.284

5.2.4 Environmental Feasibility Analysis and Real estate projects performance

To fulfill objective four, the study sought to establish how environmental feasibility analysis influences real estate projects performance in Kisumu city. The study reported a significant weak positive correlation between environmental feasibility analysis and real estate projects performance, ($r=0.260$; $p<0.007$). Composite Mean and SD 2.77; 1.361

5.2.5 Real estate projects performance

The study had sought to answer the question: How is Real estate projects performance in Kisumu City, Kenya? The study found out that the performance is low with a composite Mean and a composite Standard Deviation of 2.35 and 1.444 respectively.

5.2 Conclusions

The study made the following conclusions based on the findings;

Financial Feasibility Analysis positively and significantly influences Real estate projects performance

Economic Feasibility Analysis positively and significantly influences Real estate projects performance

Market Feasibility Analysis positively and significantly influences Real estate projects performance

Environmental Feasibility Analysis positively and significantly influences Performance of Real Estate Development Projects. Real estate projects performance are low in Kisumu City, Kenya and therefore majority are not meeting their objectives

5.3 Recommendations

The study made the following recommendations that should be put into practice and also for policy formulation;

- i. There should be institutional policy and framework to guide feasibility analysis of critical factors in real estate development projects
- ii. The government should focus on providing economic stimulus towards the development of real estate development projects industry to activate the industry growth
- iii. Prohibitive regulatory obstacles should be reviewed to enhance growth and development of the industry

5.4 Suggestions for Further Research

The study suggests that a similar study focusing on other major cities and towns in Kenya to establish the relationship between feasibility analysis and real estate projects performance in these towns and major cities.

The study also suggests that a study be conducted to investigate critical factors that influence real estate projects performance in Kisumu City, Kenya

5.5 Contribution to the Body of Knowledge

The study made the following Contribution to the Body of Knowledge;

Research Objective	Contributions to the Body of Knowledge
To examine influence of financial feasibility analysis on real estate projects performance in Kisumu City	Financial Feasibility Analysis significantly enhances Real estate projects performance
To assess influence of economic feasibility analysis on real estate projects performance in Kisumu City	Economic Feasibility Analysis significantly enhances Real estate projects performance
To determine of influence of market feasibility analysis on real estate projects performance in Kisumu City	Market Feasibility Analysis significantly enhances Real estate projects performance
To establish influence of environmental feasibility analysis on real estate projects performance in Kisumu City	Environmental Feasibility Analysis significantly enhances Real estate projects performance

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APPENDICES

Appendix I: Questionnaire for Real Estate Developers and Regulators

I am Mr. Paul Ochieng of University of Nairobi undertaking an academic study on **Feasibility Analysis on Performance of Real Estate Development Projects in Kisumu City, Kenya**. I humbly request for your voluntary participation in the study. Thank you

Instructions

- i. Kindly fill all the sections till you get to end of the questionnaire
- ii. Do not reveal your identity
- iii. This is an academic research, no prejudice is intended
- iv. Your participation in the study is on voluntary basis

Section A Demographic Information of Respondents

Kindly Tick your **Gender**:

Male Female

Please kindly tick your **AGE**:

18-27 28-37 38-47 48-57 58-67 Above 67

Please kindly tick your **Marital Status**:

Single Married Widowed Separated Other (Specify)

Please kindly tick your **Highest Level of Education Qualification**

Primary Secondary Certificate Diploma Degree

Masters PhD Others (Specify)

Section B: Financial Feasibility Analysis

This section has Likert Scale statements to be rated based on the strength of your agreement or disagreement. Kindly chose levels appropriately ticking in the intersection box between statement and level of agreement

Item	Statements	Strongly Agree(5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree(1)
B1	The cost of capital acquisition for development of real estate development projects is reasonable					
B2	The are several sources of real estate development					

	projects' funding					
B3	The break-even period for real estate development projects is shorter					
B4	Securitization process of real estate Projects is not unreasonably bureaucratic					
B5	There is eases of ccessibility to finance real estate development projects					

Section C: Economic Feasibility Analysis

This section has Likert Scale statements to be rated based on the strength of your agreement or disagreement. Kindly chose levels appropriately ticking in the intersection box between statement and level of agreement

Item	Statements	Strongly Agree(5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree(1)
C1	High inflation rates negatively affect real estate development projects					
C2	Prohibitive taxation regimes negatively affect real estate development projects in Kisumu City					
C3	Low currency strengths and exchange rates negatively influence real estate development projects in Kisumu City					
C4	Kisumu City has high land rates that make real estate development projects expensive affair					
C5	High rate of asset deprivation in real estate development projects negatively impacts the industry					

Section D: Market Feasibility Analysis

This section has Likert Scale statements to be rated based on the strength of your agreement or disagreement. Kindly chose levels appropriately ticking in the intersection box between statement and level of agreement

Item	Statements	Strongly Agree(5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree(1)
D1	There is unhealthy competition in real estate development projects industry					
D2	There is low demand for real estate assets in Kisumu City					
D3	The population of Kisumu City has got low income levels and that affects their purchasing power of real estate developed projects					
D4	Customers prefer to develop their own project rather than buy ready housing in the market					
D5	Customers prefer cheaper alternative than purchase completed Projects					

Section E: Environmental Feasibility Analysis

This section has Likert Scale statements to be rated based on the strength of your agreement or disagreement. Kindly chose levels appropriately ticking in the intersection box between statement and level of agreement

Item	Statements	Strongly Agree(5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree(1)
E1	Building material are cheaply and readily available within Kisumu City and its environs					
E2	Real estate firms enjoy readily available support infrastructure such as roads and other transport networks					
E3	Weather and climate conditions affects demand for real estate projects					
E4	Real estate development areas enjoy good safety and security and thus attract customers					
E5	There is easy of accessibility of real estate development sites from Kisumu City Centre					

Section F: Performance of Real Estate Development Projects

This section has Likert Scale statements to be rated based on the strength of your agreement or disagreement. Kindly chose levels appropriately ticking in the intersection box between statement and level of agreement

Performance of Real Estate Development Projects

Item	Statements	Strongly Agree(5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree(1)
F1	There is a shorter sell-out period of real estate management projects in Kisumu City					
F2	There is high occupancy rate of finished real estate development projects in Kisumu City					
F3	Project completion period is short and within the schedule time					
F4	Real Estate development Projects strictly adhere to specifications and regulations					
F5	Cost Performance Index of the real estate development Projects is always less than one					

You have come to end of the Questionnaire.

Appendix II: Interview Schedule

How do you think conducting or failure to conduct Financial Feasibility Analysis Influences Performance of Real Estate Development Projects in Kisumu City?

Investigator to probe for; cost of capital acquisition, Funding availability, Break even period, Securitization processes and Finance accessibility

.....
.....
.....

How do you think conducting or failure to conduct Economic Feasibility Analysis Influences Performance of Real Estate Development Projects in Kisumu City?

Investigator to probe for; Inflation rates, Taxation regimes, Currency strength and exchange rates, Land rates and Asset depreciation rates

.....
.....
.....

How do you think conducting or failure to conduct Market Feasibility Analysis Influences Performance of Real Estate Development Projects in Kisumu City?

Investigator to probe for; Industry Market Competition, Demand for real estate assets, Population purchasing power, Customer preferences and Real estate asset alternatives

.....
.....
.....

How do you think conducting or failure to conduct Environmental Feasibility Analysis Influences Performance of Real Estate Development Projects in Kisumu City?

Investigator to probe for; Availability of raw materials, Support infrastructure, Weather and climatic conditions Safety and security and Accessibility

.....
.....
.....

Appendix III: Research Permit