

DRIVERS OF REAL ESTATE PROPERTY PRICES IN URBAN KENYA: A CASE OF REAL ESTATE PROPERTIES IN KISII TOWN

Mecha Douglas Osoro
Master of Science in Finance,
Jomo Kenyatta University Of Agriculture and Technology

Professor Willy Muturi (PHD)
Lecturer, Jomo Kenyatta University of Agriculture and Technology

Abstract

During the last two decades urban centers have been experiencing rapid urbanization, driven by large scale rural urban migration, in search for better opportunities that include better jobs, better businesses and better education from higher learning institutions. This has strained available housing units resulting to high house prices. The general objective of the study was to make determination of the drivers influencing Real Estate property prices in Kisii Town. The study was steered by a number of specific objectives: To find out the extent to which location influences Real Estate property prices in Kisii Town, To determine the influence of cost of land on Real Estate property prices in Kisii Town, To find out the influence of cost of building material and labour on Real Estate property prices in Kisii Town and To establish the influence of security on Real Estate property prices in Kisii Town. The study adopted descriptive research design with a target population of 546 respondents, with sample size of 231. The study results indicated that location of land positively influenced Real Estate Developers to invest in attractive but expensive locations. The cost of land, building materials and labour were also found to have positive significant effect on Real Estate Property Prices. The high cost of land, building materials and labour are ultimately passed on to renters or buyers so as to enable the Developers maintain high profit margins previously enjoyed. The annual crime rate was used as a proxy for security. High crime rate was found to have a negative influence on Real Estate Property Prices. The research recommends that the National and County governments partner in provision of infrastructural facilities, social amenities and construction of by-passes to make location attractive to Property Developers. The County government to provide the private sector with land through land swaps to expand available land for housing projects. Reduction of levies charged on building materials and petroleum products so as to reduce prices of building materials and transportation costs. Training of more artisans to avail required skills at lower costs and adoption of cheap construction methods such as prefabricated materials and Expandable Polystyrene Panels.

Keywords: Real Estate, prices, cost of land security, material and labour

I. INTRODUCTION

1.1 Background to the Study

Drivers of Real Estate property prices are fundamental factors whether economic, social, political or institutional that have influence on prices of Real Estate properties. Real Estate property prices in this case are construed to contain the prices of both land and houses. Real Estate Property constitutes objects or structures permanently fixed on land (Brueggeman and Fish, 2005).

The growing demand for both residential and commercial premises has attracted both individual and institutional investors to the Real Estate sector. The trend has become so pronounced in major urban centres and cities of Kenya. Nairobi leads the pack in the fastest growing cities of the world such as Miami and Monaco. This is according to Real Estate Management Company Knight Frank in its 2012 Wealth report.

Studies have been done around the globe on the fundamental drivers of Real Estate property prices. Quigley (1999) poses the question as to whether fundamentals explain property prices. Carey (1990) outlined quite a number of factors that influenced Real Estate property prices. They included the level of income, the number of housing units supplied and the financial policy. It should be noted from the onset, various researchers on the linkages between property prices and fundamental drivers have used selected fundamentals which at times are inferred. They have also used different approaches and different models tailored to specific regions in the globe. A few examples will reveal this: Real per capita income, change in adult population and cost of construction were all found to have a positive relationship with property price changes (Case and Shiller 1990). A study conducted by Hofmann (2003) in economically advanced countries showed that the rates of interest, inflation, economic growth and equity prices significantly determined house prices, their explanatory powers were quite predominant. When Egert and Mihaljet (2007) carried out their study in 27 OECD and European countries they found that macro-economic factors which included, institutional factors and housing finance systems were instrumental in determining house prices. According to Breedon and Joyce, 1993, who used disposable income, population demographics, earnings and mortgage repossession rates to conduct their relationship to Real Estate prices, concluded that disposable income and population demographics positively influenced Real Estate prices while favourable mortgage influenced investors' decisions to invest in residential structures. Jorge and Luis 2003 used Error correction model to study the house prices in Spain in relation to a number of factors,

nominal interest rate and income were found to be key factors influencing house prices. Cooper (2004) in his study claimed that the UK has enjoyed comparatively stable house prices since 1980, because of low interest rate regime system. Ho and Wong (2008) used ARDL-Autoregressive Distributed Lag approach to explain movement of house prices in Hong Kong which they attributed to booming exports and low interest rates prevailing at the time, while Leung, Chow and Han (2008) used co-integration analysis to examine the long run determinants of property prices in Hong Kong, to which GDP, per capita, real interest rate, land supply and the residential investment deflator were established to be key factors influencing property prices.

Chirchir (2006), enumerated many factors found to have contributed to this acute housing shortage which included the government's reduced budgetary allocation on public housing and infrastructure development, high rates of rural-urban exodus, high cost of land, building materials and mortgage financing. Home ownership level is low, estimated to be 16% (Rutha, 2010). The National Housing survey Report indicated a meagre 4.2 per cent of households in Kenya were qualified to borrow money from mortgage institutions to purchase already completed houses or construct their own houses. This confirmed why the number of households paying rent raised significantly from 17.25 per cent in 1994 to 23.8 per cent in 2005/06. Kenyan mortgage is immature at 2.7 per cent of GDP compared with South Africa at 24 per cent of the GDP. In the USA according to UN-Habitat (2009) which has more advanced mortgage system of financing, many people acquire their homes through mortgage financing. The homes are used as collateral to obtain further loans. Boleat (1982) observed how incremental mortgage loans in Australia resulted to a vibrant housing sector with equally strong economy.

In Kenya's Real Estate market is at cross roads because as Real Estate developers put more units of houses to reduce housing deficit, the market dynamics seemed unlikely to support these intentions, developers are not only concerned with high cost of land, loans and building materials but also the widening gap between supply and demand leading to the high prices and rents being charged.

According to UN-Habitat, 2011, house prices in the developing countries of Africa are too expensive. According to Onibokun (1986), rent in big cities of Nigeria is about 60% disposable income of workers. This is far than 20% - 30% recommended by United Nations. Kenya is not exception, house prices have increased in most urban centres. Property values have more than tripled since the year 2000- from Kshs. 7.1 million in 2000 to Kshs. 22.3 million in 2012 (HFCK, 2012). Many low and middle income urban dwellers can't afford decent housing despite efforts by the government to contain the situation. Nairobi city which was planned for less than 1 million people has seen an influx of people reach 3 million stretching availability of houses to

the limit(Masika 2010).During the last three decades, Kenya has been experiencing very rapid urbanization resulting from natural population growth. This phenomenon of urbanization has brought with it enormous challenges manifested in the acute shortage of housing resulting to overcrowding, high house prices, substandard human settlement conditions such as slums, and squatter settlements, inadequate infrastructure, community facilities and services (Obudho, and Aduwo 1998, Kusienya, 2004.

In the Kenyan setting, studies done on real Estate Sector include that of Muli (2011) who studied the relationship between property price and mortgage lending in Kenya. Kagendo (2011) identifying the determinants of Real Estate property prices and determined that expected incomes from Real Estate are key in influencing their prices, accounting for more than 70% of the changes in Real Estate property prices, Ceteris Paribus (Kigige, 2011). Another study carried out in Nairobi City recorded as a key found that “house prices in Nairobi City are not supported by the GDP, interest rate and the cost of construction.” However there is a positive relationship between population growth, level of money supply, the rate of inflation and residential house prices (Ouma, 2011). Therefore it was on this background the study sought to determine what influenced the prices for Real Estate in Kisii Town of Kenya.

1.2 Statement of the Problem

Due to improvement in the level of economic development major urban centers in Kenya will be overwhelmed by the demand. The demand for real estate properties will be greater than the supply (HFCK, 2012]. The interaction between strong demand, revenue expenditure, Land non-availability and insufficient supply of residential property results to high Real Estate property prices. The steady Population growth rates and rapid urbanization will make the demand for land to raise leading to high land prices. In recent years population of major urban centers has grown fast as many people flock into these urban centers to look for business opportunities as well as high leaning institutions opportunities, which leads to housing deficits. This upward spiral has raised concerns first about what drives Real Estate prices in major urban areas of Kenya. Secondly, the sustainability of the high Real Estate prices Kenyans. According to UN Habitat, 2011, house prices in the developing countries of Africa are too expensive. A Kenyan magazine (construction Kenya, 2009) quoted a Kenya permanent secretary reporting that the prices of houses and rent changes in Kenya have skyrocketed in the last few years, with speculation that the money invested into real estate sector could be proceeds from illegal business such as piracy.

In 2011, Hass property consultants also revealed that property prices rose by 55 per cent since 2007. A study carried out by Kigege(2011) in the municipality of Meru revealed how expected incomes from Real Estate influenced Real Estate Property prices, however(Ouma,2011) found a

positive relationship between population growth ,inflation rate and money supply with house prices.).It is clear that a number of researchers have carried out research on the “traditional drivers” of Real Estate prices in selected urban areas of Kenya. Although property prices have generally risen within Kisii Town, a number of satellite areas attract different prices.The prices are region specific since each region has distinct characteristics that influence the Real Estate Property prices in a particular way that may not be necessarily replicated in another region. Therefore need arose to analyse the supply side factors that uniquely drove Real Estate Property prices in Kisii Town

1.3 Objectives of the Study

1.3.1 General Objective of the Study

The general objective of the study was to determine drivers that influence Real Estate property prices in Kisii Town.

1.3.2 Specific Objectives of the study

- To find the influence of location of land on Real Estate property prices in Kisii Town.
- To determine the influence of cost of land on Real Estate property prices in Kisii Town.
- To find the influence of cost of building material on Real Estate property prices in Kisii Town.
- To establish the influence of security on Real Estate property prices in Kisii Town.

II. LITERATURE REVIEW

2.1 Theoretical review

2.1.1 Agency Theory

The primary proponents of this theory were Stephen Ross and Barry Mitnick. Ross came up with the economic theory of agency in terms of how to deal with the problem of selecting compensation system that is able to consistently produce the agent’s preference and the principals’ preference at par, while Mitnick came up with institutional theory of agency.This theory explains the relationship between the agent and the principal. The agent is whoever is engaged by another party to perform specifically assigned duties on behalf of the party that engaged his services for a fee. More often than not the principals are busy persons who are constrained with time and information while agents are experts in the field who dedicate most of their time and the variety of information at their disposal to make decisions on behalf of their principals. The agents are engaged to act as intermediaries and are expected to act on the best interest of the principal. In the property industry, owners of land,Developers and renters can be

regarded as the principals while agents can be seller agents(Jensen and Meckling (1976). Real Estate agents are mostly involved in the provision of services that relate to the sale or purchase of real estate properties on a fee. Property seller agents do a number of activities such as advertisement of the property in question, listing property prices, and negotiating with property buyers. Property buyer agents are also involved in searching for properties that match their clients' tastes and preferences. They arrange visits to the listed properties and negotiate with sellers to arrive at prices agreeable to both parties. Agents are key in that they also knowledgeable on a host of issues that relate property succession, administration, mortgage, property lawyers and change of property ownership process. (Barwik and Pathak, 2011).

2.1.2 Decision Theory

This theory was first developed by Herbert Simon in 1960. According to Decision theory (French, 1986) explained how people integrated information available at their disposal that influenced them to make certain choices. This implied that decisions were heavily a function of several available pieces of information that subconsciously was subjected to "judgement". Real Estate Development is usually capital intensive in nature and once money is injected to the project it's not easy to reverse the commitment hence a lot of care and systematic planning is needed before execution stage. Real-estate Investors like many other business men are faced with resource constraints hence they allocate the limited resources in the most prudent way by making choices on what proportion of given resources that are assigned to specific investment portfolios so as to attain the best optimal returns. Real Estate business is in most cases faced with uncertainties ranging from the behaviour of macroeconomic variables which determine the level of economic performance, political activities, government policies which affect the business environment. All these uncertainties are equated to business risks. Rational investors usually perceive risks while making investment decisions. They also develop attitudes towards risks which they classify based on how the risks affect returns to their investment. This indicates how perception to risk and attitude are pillars of investment decision making process but research has shown that many Real Estate investors under estimate them making prediction of expected returns an impossible mission resulting in inadequate compensatory provision to the risks(Macfarlane, 1995).

2.1.3 Rational Choice Theory

According to rational theory, rational human beings when confronted with different situations at a given period of time they look at available alternatives that are deemed to solve their problems. The alternatives have benefits and costs which are weighed to come up with the alternative that has the highest net benefits at the lowest cost (Jackson 2005).This is in line with the concept of utility maximization (UM), first introduced by Daniel Bernoulli and Gabriel

Cramer in the 18th century which accordingly states that a decision problem presents an agent with a partition of acts, from which he must choose exactly one that leads to the highest utility result. Rational choice theory is relevant to the Real Estate sector since investment in Real Estate property like any other asset investment must be assessed based on risks and returns. Real Estate Developers are interested in minimizing risks while expanding returns over time. This requires critical analysis of the risks and the returns associated with each investment option to make choices over which alternative is best subject to the investment funds available, the space available, the time available, the prevailing government policies on properties and the client's preferences.

2.2 Conceptual Framework

Independent variables

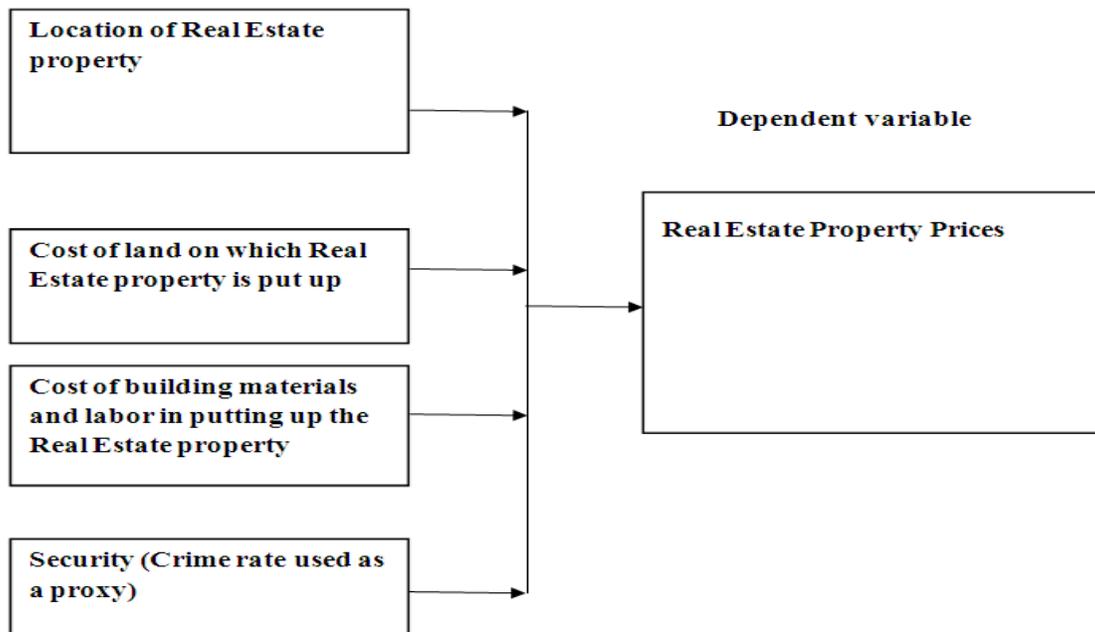


Figure 2. 1: Conceptual Framework

2.3 Empirical Review

Mavrodiy Antonia, (2005): Analyzed the core determinants of Real Estate prices in Kiev Real Estate market in Ukraine. Residential housing price per square as a dependent variable with Real GDP, population level, average wage and interest rate as explanatory variables. Data was collected between 1996 and 2004 and then aggregated according to ten District in Kiev. The Data was regressed by OLS estimation. Time series and Augmented Dickey full (ADFT) test was used to analyze the variables. From the results Mavrodiy confirmed that macro factors indeed influenced Real Estate market. Increase in GDP, increase in average wage and increase in population appear to have positive effect on Real Estate prices. While increase in interest rate had negative effect on the price level. The Districts are distinct and location was looked at on how relatively it was to the nearest metro station. It can be noted from this study that a number of factors influenced where people bought Real Estate properties. Further, the study failed to look at how location influenced the prevailing Real Estate property prices.

Mulib(2011) established positively significant relationship between house prices and mortgage credit. As earlier indicated land has different alternative uses and capacities depending on the location of land which can influence the class of developers interested to buy property in a given area. Locations with high social values tastes, symbols, culture, transportation and historical development of a location, topographical features and government policy attract relatively a high number of developers because their expected high values, Julius (2012). Prices of land whose location is near urban centres that are easily accessible to work places are high. Land located an urban area is also easy to convert to other uses, this makes it competitive, (Brueggeman and Fisher, 2008). People with high stable incomes prefer to build spacious residential buildings hence they look for locations that can accommodate their preferences, usually outside urban centres where prices are cheap and the environment is quiet. Wong (2002) indicated how households made house purchase decisions based on location of work place, location of the property in question; education attainment, house characteristics and ethnic ties but, Beguy *et al* (2010) attributed these decision factors to the mobility among low income household bracket. The housing price equation can be expressed as a composition of land acquisition cost + development cost + management fees + Investment interest + sales tax + development profits.

Robert *et al* (2012) conceptualizes security as the level of resistance to, or protection from harm it applies to any vulnerable asset, a person, dwelling, community, nation or organization. The average number of crimes in an area gives details of how safe a place is (Peitinger, 2013). A place where signs of vandalism and suspicious activities are noticed within the neighborhood is considered to be unsafe (Marija *et al*, 2011). Every person prefers residing in safe places hence shying away from residing in unsafe areas. This reduces the demand for residential house in

such areas thus affecting the residential values negatively. On the other hand, there will be high demand for residential houses deemed to be located in safe areas (Kaman, 2011).

Muthee, (2012), noted that supply tends to slowly respond to increased demand. So when demand for Real Estate properties increase rapidly and this cannot be matched with supply which in many occasions is contracted and non-responsive, prices of the Real Estate properties will continue to rise. As prices of Real Estate properties rise, land lords will greatly benefit from capital gains and rental income from high occupancy rates as well as ease of obtaining mortgage as the collateral used in now of high value. Renters will suffer the high prices, many households will not afford, and they may opt to move to other places considered cheap. Performance of residential sector is depended on many factors; key among them are household disposable income and access to credit.

III. RESEARCH METHODOLOGY

3.1 Research Design

The researcher adopted descriptive research design. Location which is a categorical variable is converted into a useful predictor. It is coded as a multivariable predictor of regions which are the west, East, North, South and the Central Business District. Location that gives utility to the real estate Developer is coded one, otherwise is coded zero. Central Business District is omitted from the model but is used as the baseline for the regression.

3.2 Target Population

In this study the target population is 546 Real Estate property investors/developers in Kisii Town. According to 2009 KNBS census, the population of Kisii Town was 61892 of which 31329 was male and 30563 was female due to its high population growth rates and high population density. In such huge population, the composition is diverse in many ways it terms of interests, orientations, values, philosophy and housing needs.

3.3 Sampling Techniques and sample size

Stratified random sampling was used to select developers from the area covering Kisii Town which include CBD, Nyanchwa, Jogoo, Mwembe Tayari, Menyikwa Daraja Moja, Daraja Mbili, Nyankongo, Gesonso, Milimani, Itierio, Nyangena, Gekomu, Nyabururu and Nyamataro) and then by a simple random sampling proportional to the number of Real Estate developments since inception of county government of Kisii from each of the strata.

Table 1: Sample Size

STRATA	No. of buildings	Proportional sample size
Nyanchwa	35	14
Jogoo	22	9
MwembeTayari	45	18
Menyikwa	76	30
DarajaMoja	36	14
DarajaMbili	40	16
Nyankongo	29	12
Gesonso	56	22
Milimani	17	7
Itierio,	39	16
Nyangena	26	11
Gekomu	50	23
Nyabururu	21	8
Nyamataro	29	12
Embassy	25	10
Total	546	231

The study employed the Israel (2010) formula to calculate the sample size as shown below.

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

Where:

n = sample size

N = Study population

e = Error margin at 95% level of confidence.

$$546 / 1 + 546 (0.05)^2$$

n = 231

The sampling technique used was stratified random sampling because the distribution of developers from the area covering Kisii Town which include CBD, Nyanchwa, Jogoo, Mwembe Tayari, Menyikwa Daraja Moja, Daraja Mbili, Nyankongo, Gesonso, Milimani, Itierio, Nyangena, Gekomu, Nyabururu, Embassy and Nyamataro). This sampling method ensured that there was proportionate representation of all the fifteen strata hence reducing sampling bias.

3.4 Data Collection Instruments

The study used primary and secondary data. A questionnaire was used in the collection of data. According to Kothari (2012) the questionnaire is the most appropriate instrument due to its ability to collect a large amount of information in a reasonably quick span of time and economical manner. Primary data was gathered directly from Real Estate property investors (developers who are the main target respondents in this study) The researcher developed a questionnaires with questions of interest being neighbourhood, location, cost of land, materials and labour, affiliated services and preferences were administered to the sampled Real Estate property investors/developers. The questionnaire was used to collect primary data consisting of both structural and unstructured questions. These questions enabled the researcher to collect qualitative data that was helpful in providing a more insightful interpretation of the results from the study.

3.5 Data Analysis and presentations

Data analysis is the process which starts immediately after data collections and ends at the point of interpretation and processing Mugenda and Mugenda(2010). Data was be classified, edited and then coded. The data was also presented in form of tables. Data was analysed using Statistical Package for Social Sciences (SPSS). In this study, descriptive and inferential statistical techniques were used. Descriptive statistics included the mean, standard deviation and correlation analysis. The data was multiple regressed whereby both the dependent and independent variables were analysed to evaluate the relationship.

The model will take the following structure;

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

Where;-

Y= represents Real Estate property price

($\beta_0, \beta_1, \beta_2, \beta_3, \beta_4$) = regression coefficients

X_1 = location of land

X₂= cost of land

X₃= cost of building materials and labour

X₄= security

ε = error term.

IV. RESULTS AND DISCUSSION

4.1 Response Rate

From the responses, 231 respondents were sampled from which 188 returned fully filled questionnaires. This represents 81% response rate which is highly acceptable.

4.2 Correlation Analysis

The researcher established a correlation analysis which tabulated to counter check the relationship in the drivers of the real estate property prices. The independent variables included; - land location, cost of land, building materials, labour and security. The study findings are as tabulated below;-

Table 2 Correlation Analysis

		Decision to invest
Cost of building	Pearson Correlation	.145
	Sig. (2-tailed)	.319
	N	49
Cost of Land	Pearson Correlation	.332**
	Sig. (2-tailed)	.020
	N	49
Land Location	Pearson Correlation	.564**
	Sig. (2-tailed)	.000
	N	49
Security	Pearson Correlation	.452**
	Sig. (2-tailed)	.001
	N	49

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

From the study results it is clear that different drivers have different effect on the real estate

property prices. Land location was found to be having significant positive relationship ($r = 0.564$) with decisions for real estate developers to invest in real estate. This shows that land location is one of the drivers in real estate property prices in Kisii Town. Cost of land had an average significant level of correlation ($r = 0.332$) with decisions to invest in real estate property. This findings suggests that the urban areas are developing very fast making the areas neighbouring the town to hike the prices of lands. With regards to cost of building, the study results indicated a positive relationship between cost of building and real estate property prices ($r = 0.145$). This implies that the development of the urban neighbouring areas led to increase in the cost of building real estate property. Finally, the study results established that there was a negative relationship ($r = 0.452$) between the security and real estate property prices. This implies that crime rate was among the factors that developers considered before investing in a given area.

4.3 Regression Analysis

Table 3 ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.203	5	2.641	16.907	.000 ^a
	Residual	6.716	43	.156		
	Total	19.918	48			

a. Predictors: (Constant), land allocation, cost of land, cost of building and security)

b. Dependent Variable: Decision to invest

The ANOVA findings indicated that $\alpha=0.05$ level of significance, there existed enough evidence to conclude that at least one of the predictors was useful for decision by developers in Kisii County to invest therefore making the model to be useful. The coefficients of correlations for the independent variables are illustrated below;-

Table 4 Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error			
1 (Constant)	-1.613	.827		-1.949	.058
security	-.012	.112	-.010	-.106	.916
Land location	.105	.099	.100	1.058	.296
Cost of land	.640	.150	.403	4.255	.000
Cost of building	.292	.089	.315	3.286	.002

The results revealed that $\alpha=0.05$ is the level of significance, from the results three of the variable had a positive significant effect on developers investment decision making hence the study concluded that out of the four independent variables three of the variables were drivers of decision making in real estate property prices. Security did not have a significant effect on the investment planning and decision making. The equation model is as presented below;-

$$Y = -0.163 - 0.012X_1 + 0.292X_2 + 0.105X_3 + 0.640X_4$$

From the results it is clear that other variables were constant, single unit was noted to have increased in the cost of land in real estate property investment which changed by 0.640. Cost of building changed by 0.292, land location changed by 0.105 and security 0.012 respectively. From the four variables studied it was noted that the correlation of the following were significant; Cost of land ($\beta=0.640$ and $p=0.001$), cost of building ($\beta=0.292$ and $p=0.002$), land location had a positive coefficient of ($\beta=0.105$). However, security was found to have a negative coefficient that was not significant ($\beta=-0.012$ and $p=0.916$). This shows that land location, and cost of building were the significant drivers of the developers in decision making in real estate property prices in Kisii Town.

4.3 Discussion of the Findings

Land whose accessibility is guaranteed by good road networks attract high price as compared to land that is poorly connected with roads. Transportation of material to construction site is easy in accessible land which further reduces transportation cost. Tenants will always be ready

to pay high rent to occupy accessible premises, thus vacancy rates are low on premises that are accessible. Land that is close to social amenities is attractive since developers will not incur any extra cost to put up essential infrastructural amenities because they are already in place. Some government policies may, allow for expansion or limit expansion; thus determining both the supply of land and the use of land. With the rapidly urbanizing trend, most land developers are looking for space away from Kisii central business district. Conversion of land in some locations may be prohibited, especially if the land is preserved for agricultural purposes, future development or recreational purposes.

This is consistent with the findings of Iahoz (2007) in his study entitled an analysis of how geographical factors affect real estate prices. The study has done in Sweden. He looked at the value of land as a dependent variable affected by independent variables such as water, railway station and roads which were attributes of the location of land. He concluded that geographical factors combination explains better the difference in property prices in different locations. The results are also consistent with Plantiga et al (2002) that carried a study in Portland Oregon on amenities on urban equilibrium model. Households were found to be willing to pay more for newer houses located in less dense development, with more open space, better views and less traffic congestion. Houses located next to urban centers fetched high price than those located far away from urban centers.

The second research question was how the cost of land influences real estate property prices in Kisii Town. From the regression equation the cost of land was found to have changed property prices by 64%. This is a strong correlation between cost of land and real estate property prices. Which means that an increase in the cost of land results to an increase in the price of Real Estate property? High cost of land in Kisii Town can be attributable to speculative tendencies by land speculators? A number of land buyers, buy land and hold it until prices are high and then resale it on a profit. Most sellers of land in Kisii Town are not the original owners of land but are speculators who bought it to resale. The property prices are not market based since prices are manipulated by brokers and agents. Evidence from data indicate rapid urbanization has put pressure on existing space resulting to fierce competition for land to put up houses which further escalate land prices. Unpredictable general elections every election cycle, has encouraged people to invest at home hence property Developers are trooping back home to buy properties to avoid risks associated with buying properties in foreign land. This has contributed to high land prices in Kisii Town. The advent of Devolution has also expanded opportunities for the Real Estate Developers. Skilled workers working in the Devolved units earn huge salaries thus they buy properties. This category of land buyers expects land to be expensive and this influences the cost of land. The high property prices can also be attributed to the herd behavior of Real Estate investors who simply follow others since they are thought to know where they are going in terms of Real Estate Development. This result is in line with that of Alaghbari

(2010) who found the cost of land materials was the most influential factor affecting the cost of housing in Yemen.

The third research question was what the influence of cost of building materials and labour on Real Estate property prices in Kisii Town. From the regression equation the cost of materials and labour contributes about 10.5% change to the price of Real Estate property. A number of building materials are transported from major urban centers to Kisii Town; hence transport costs are transferred to the end users. The price of fuel keeps on increase hence transport companies also raise the cost of their services resulting to high cost of building materials. Most modern building materials are imported and thus come with imported inflationary prices. A number of factors such as delay in completion of building under construction may cause escalation of building costs. When building contracts are poorly managed thus extending the life of the construction project may lead to high costs of building materials. Sometimes poor control procedures allow the pilferage of construction materials resulting to extra replacement costs. Since land is so emotive in Kisii Town, there are many disputes on sites which delay construction consequently escalating prices of materials over time. Unskilled labour is abundant in Kisii Town which makes it cheap, but skilled labour is hard to find thus its expenses to maintain if imported from other places. A part from dearly paying for imported skilled labour, it is also expensive to accommodate, transport to and from the site. This is consistent with studies done by: Koushki et.al (2005) did a study in Kuwait on the causes of increase of cost of construction of residential projects where delay, changed orders and lack of construction experience were found to be the major causes; Bertelsen and Nielsen (1997) did a study in Denmark and found that materials, labour Heavy Equipment and supervision contributed to a ratio of 50:30:5:15 respectively on the cost of construction.

The fourth research question was the influence of security on real Estate property price in Kisii Town. Since crime rate was used as a proxy of security or insecurity, there is a negative relationship between crime rates and real Estate property prices. Crime rate is used as an indicator of safety. A high crime rate is negatively associated with poor neighborhood quality hence discouraging potential individuals from buying property in that neighborhood. Areas with zero crime rates are believed to enjoy high property prices since buyers are more willing to pay more for security. Places considered safe attract many property investors thus creating competitive prices. Land buyers who buy properties in areas considered unsafe spend a lot in the installation of security systems to safeguard their homes from robbers. A study by Gibbons (2004) found a decrease in property values of 10% for a one standard deviation increase in property crime while another study done by Ceccato et.al (2011) indicates that buyers expect discount for purchasing properties in neighborhoods with high crime rates.

V. CONCLUSIONS AND RECOMMENDATION

The study findings established that there has been an increase in the drivers of the real estate property prices in urban Kenya. From the financial analysts perspective, it is essential to inform the investors to do more real estate property investment in urban areas. It is important for the real estate property firm's needs to be aware that the real estate property is not exhaustive and therefore more individuals and groups needs to invest in this type of investment.

The real estate developers needs to plan and organize for continues research so that they get the right market information from which accurate and sound decisions can be made on real estate investment in Kisii County. With the research and development, the developers will be able to achieve a competitive advantage. The real estate developers in Kisii County should work with the available financial institutions for easier accessibility of credit at appropriate rates that will enable them develop more lands. The developers should be urged to come together and form a Sacco so that they maximize common social facilities.

Based on the findings of the study the following recommendations have been made;-To address the construction related to the supply of Real Estate Properties in Kisii Town, there is need to enhance what makes location attractive while reducing the causes of high cost of land, building materials and labor. Location of property should be made more attractive to Real Estate investors by both the National and County Governments partnering in the provision of infrastructural facilities, social amenities and construction of by passes. Devolved units to provide private sector with land through land swaps to expand available land so as to advance housing projects. Reduction of levies charged on building materials and petroleum products to reduce cost of materials. Adoption of cheap construction methods such as prefabricated houses, expandable polystyrene panels. Training of more artisans to avail required skills so as to lower the cost of labor.

REFERENCES

- [1]. Brueggeman W and Fisher J. (2008) Real Estate Finance and investments McGraw-Hill
- [2]. Case and Shiller R.J, (1990), forecasting prices & Excess Returns in the Housing market. Real Estate Economics, American Real Estate and urban Economics Association vol 18(3)
- [3]. Case, B and watcher S,M (2011) inflation and Real Estate investments, University of pennsylvanian, institute for Low and Economic Research paper No 11-33,

- [4]. CAHF Housing Finance year Book (2013): Centre for affordable Housing Finance in Africa (CAHF), South Africa
- [5]. Chirchir J.S. (2006) promoting Home ownership using retirement benefits, Research paper series 01/2006, Retirement Benefits Authority, Nairobi
- [6]. Cahill.,(2010) Making sense of elevated Housing prices. Federal Reserve Bank of Dallas, South West Economy
- [7]. DebelleG ,(2004) ,macroeconomic implications of Rising Household Debt: B/S working paper 153 Basle.
- [8]. Doerner, W.M and inlanfeldt KR. (2011) House prices and City Revenue, Regional science and urban Economists.
- [9]. Egert and Mihaljek ,(2007) statistical Analysis of the Real Estate market of the residential apartments in the North-East Region of Romania: Is there a Real Estate Bubble in the (ZEch Republic?
- [10]. Egert B and Michaljek D. (2007) Determinants of House prices in central and Eastern. Published in SSRn Electronic Journal,
- [11]. Fama E and Schwert, G.W (1977) Asset Return and inflation, Journal of Financial Economics, vol5
- [12]. Hui Eddie C.M and Yueshen. Housing price Bubbles in Hong Kong, Beijing and shangai. A comparative study
- [13]. HO and Wong The Housing market crush of 2007 and what caused the crash, 2008.
- [14]. Hass consult Ltd second quarter property index Report, Nairobi, 2013
- [15]. Jumble Daniel K The relationship between House prices and Real Estate Financing in Kenya 2012
- [16]. Julius. S. M. (2012). Determinants of Residential Real Estate Prices in Nairobi. *Unpublished MBA Project*, University of Nairobi.Jumbale, D.K (2012). The Relationship between House Prices and Real Estate Financing in Kenya. *Unpublished MBA Project*, University of NairobiKagendo,(2011) The Determinants of Real Estate property prices. The case of Kiambu Municipality in Kenya, unpublished M.B.A project, University of Nairobi
- [17]. Kusienya C.M The mathare 4A. Experience and the Kenya slum upgrading programme. Paper presented in workshop on the perpetuating challenge of informal settlements on 8th -10th Nov 2004 at the university of Witwatersrand, Journnesburg South Africa, 2004.
- [18]. Kigege,(2011) Factors influencing Real Estate property prices. A survey of Real Estate in Meru municipality, Kneya Journal of Economics & sustainable development vol 2,
- [19]. Kerlinger FN Foundations of Behavioural Research 3rd Edition, Holt, Rinehart and Winston, Newyork, 1986.
- [20]. Masika (2010) factors influencing Real Estate property prices. A survey of Real Estates in Meru municipality, Kenya

International Journal Of Core Engineering & Management

Volume-6, Issue-2, May-2019, ISSN No: 2348-9510

- [21]. Makachia P ,(2010),Transformation of housing in Formal Housing in Nairobi. Dweller initiated Transformations in Formal Housing in Nairobi. Estate with case studies of Kaloleni and Buruburu Estates: Unpunished PHD Thesis, University of Nairobi,
- [22]. Mwathi J.K.,(2010) The Effect of financing sources on Real Estate Development in Kenya
- [23]. Memon, H.A. (2010). Factors Affecting Construction Cost in Mara Large Construction Project: Perspective of Project Management Consultant, International Journal of Sustainable Construction Engineering & Technology Vol. 1, No 2
- [24]. Muli J. (2011)The relationship between property prices and mortgage lending in Kenya. Unpublished MBA project, University of Nairobi 2011
- [25]. Muthee K.M.,(2012) Relationship between Economic growth and Real Estate prices in Kenya unpublished M.B.A project, university of Nairobi
- [26]. Mwathi., (2013)The effect of financing sources on Real Estate Development in Kenya (2013)
- [27]. Mwangi G;G ,2011 Behavioural Factors Influencing Investment Decision in the Kenyan property market ,Nairobi Kenya School Of Graduate Studies ,Strathmore University
- [28]. Ngugi and Njori . S,(2013). Factors affecting access to mortgage Finance in Nairobi Kenya. International Journal of Economic and Finance
- [29]. Ndururi, L. (2013). Assessment of effects of mortgage on financial performance of commercial banks in Kenya, Unpublished MBA Project, Kenyatta University
- [30]. Omengo, S. (2012). High Interest Rates Hurt Real Estate Investment: Kenya, Realtor.
- [31]. Oremo, G. (2012). How Shelter Afrique is facilitating the development of housing in Africa and Kenya in particular. Think Business Journal, (5) 12-13