



FACTORS AFFECTING GROWTH OF HOUSING UNITS IN KENYA

PATRICK KIPKIRUI

FACTORS AFFECTING GROWTH OF HOUSING UNITS IN KENYA

Kipkirui, P., Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya

Rotich, G., Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya

Accepted March 25, 2015

ABSTRACT

The importance of secure property markets is fundamental to Kenya's economy particularly in light of the goals of Kenya Vision 2030, which sees real estate as one of the foundation pillars and a resource for the socio-economic development of Kenya or any economy. Globally, China is undergoing significant growth in property development, South Africa either, (the first by continental standards) has the same trajectory but at a decreasing rate. Forms of financing, types of risks, alternative building innovations and Property demand from commercial, residential and commercial is found to affect the development of housing sector. The study examined the recent trend in the development of housing units in Kenya for the last five financial years ending quarter 2, 2014. The study established and concluded that Property Loan market penetration is still low. The mortgage penetration though not the only key to house growth, is still very low either. High levels of inflation on the other side, currency and interest rates in 2011 and 2012 had negative impact on house prices, especially for those variable interest rate mortgages which were as high as 30%. The study also found that innovative building materials being available, but not yet fully established. These alternative materials can be advantageous. With regards to demand and supply, findings suggest that there is large formal housing deficit fuelling price hikes in Kenya. The three month study was done in Nairobi County and ended November 2014. The study adopted descriptive research design with a target population of seventy eight licensed property and real estate companies, a mortgage finance company and the forty four licensed commercial banks. Data was analysed using the statistical package for social scientist- SPSS V.16.0 to provide validity, descriptive, correlation and regression, and the nonparametric tests.

Keywords: mortgage, property demand, risks, housing units

Introduction:

The importance of secure property markets is fundamental to Kenya's economy particularly in light of the goals of Kenya Vision 2030, which sees real estate as one of the foundation pillars and a crucial resource for the socio-economic and political development of Kenya. Demand for housing in Kenya is increasing and so is home ownership. The prevailing demand and supply conditions however point to the fact that the growth in home ownership is constrained by the preferences in both modality of acquisition, funding options and risks associated to housing development (Centre for Research on Financial Markets & Policy, 2015).

The constrain is buttressed by the balance between building a home versus buying one on the one hand, and getting an external financiers versus using own savings on the other. Sustainable real estate development requires strong financial systems. World Bank, (2011) report finds the commercial banking sector as well-capitalized and adequately provisioned (mortgage annual growth of 36%). kariuki & hassanalli, (Q2, 2012) with Micro finance institutions entry onto the mortgage space with incremental rates, (financiers) still shy away from other loan requests.

Property development is inherently risky, with a number of risks evident throughout the property development process (mark, 2003) . Sukulpat, (2010) notes that Risks in real estate development arise from Social, Technological, economic (exchange rates, volatility of returns and levels of inflation Environmental and Political instability noted by Lee (2012), the explicit barriers to capital flows, taxes, expropriation, and exchange controls factors - STEEP.

Property developers need innovations to improve performance (Tharachai, 2009). Innovations help companies to generate competitive advantage through improvements

that yield desirable outcomes. Innovations decrease cost, save time, improve cash flow, create distinctive consumer preference, increase quality, and minimize uncertainty or a combination. Innovation can only be managed successfully if innovation influencing factors are understood. The product, process, ICT, material and value factors influence real estate development innovation. Kajander, (2009) find a key aspect of sustainability is how companies and policy makers can stimulate innovation in built environment in order to move from incremental to substantial environmental improvements.

kariuki, (2012) finds that the housing demand is a function of locals, the increasing expatriates, and staff of the various agencies and multinationals who are looking for permanent high-end homes within easy reach of public services. But to what extend? Aden, (2013) notes that the Property prices in Kenya continue to rise at a rapid rate. At which rate? Therefore it is vital to understand market positioning and demand trends in property choices and investment. The study provides a brief review of the recently implemented housing policies and provides some basic information about the current situation of the housing market and housing system reform in Kenya.

General objective

To analyse the factors affecting the growth of housing units in Kenya; a case study of Nairobi county- focusing on forms of financing, forms of risks, technology and pricing.

Specific objectives

- i. To analyse the effect of forms of financing on the growth of housing units in Kenya,
- ii. To assess the effects of risks on the growth of housing units in Kenya,
- iii. To determine the effects of modern housing technology on the growth of housing units in Kenya,

- iv. To determine the effects of property demand on the growth of housing units in Kenya.

Literature Review

Zhu (2006) points out that the provision of housing services as depending on a well-functioning housing finance system. Access to mortgage finance is a key constraint. Across Africa, the ratio of outstanding mortgages to GDP remains very low: for the entire continent, it stands at 10%, compared to over 50% for Europe and 70% for the United States Beck et al. (2011) this is further corroborated by (Owino, 2011) and (Waley, 2011) who identify housing finance loan penetration as low. The supply of formal housing-finance institutions is primarily geared toward upper-income households, and has been shrinking over time, leaving fewer options for poor urban dwellers (Ayani, 2013).

Emilia (2009) notes that the providers of housing loans encounter three types of risks namely, production, management and income risks. Another type of risk is Credit risk which is a risk faced by financial intermediaries (Broll, Pausch & Welzel, 2002). Since this risk carries the potential of wiping out enough of a financiers capital to force it into bankruptcy, managing this kind of risk has always been one of the predominant challenges in running a financial intermediaries Broll, et al, (2002). Banks play a crucial role in the financing of real estate through mortgage financing. In lending for the purchase of land for development and existing buildings; banks finance construction projects; lend to non-bank and finance companies that may finance real estate; banks also lend to non-financial firms based on real estate collateral David & Zhu (2004).

Nairobi as a city has many commercial developments with internationally acceptable design and construction standards; reinforced cement concrete (RCC) frame Ripin (2012) and Stabilised Soil Block (SSB) technology Roger

(2012). However, behind this impressive façade also lies an enormous industry that has a vast potential to improve across all its constituent components: design, engineering, construction, day-to-day usage and maintenance Roger B. (2012). Ruitha (2011) notes slow delivery technologies for housing as a factor affecting real estate investment.

The social acceptability of alternative materials centres on their suitability for house walling, openings and overall boundary security. Security and a robust aesthetic has significance in urban housing since they embody several established social values such as modernity, social status, need for security against intruders Ripin and Roger (2012).The average Kenyan remains extremely conservative when selecting materials from which to build a home, in addition to this there is no evidence of mainstream architects using or promoting any form of alternative or 'green' walling materials, Roger (2012).

The NHC report (2011) found out that the demand for housing, particularly in urban areas, has continued to rise without requisite movement on the supply side. The study is corroborated by Mwathi, (2013) who estimates that by 2030, over 80% of Kenyan population will have migrated from rural areas, meaning that that shelter is one of their basic needs. This deficit pushed prices up making the houses affordable to a few. In the process, various developers have pursued the redevelopment option. There is heightened activity in the development of apartments, to meet the ever increasing demand. Kalenga et al. (2010) argued that inflation rates, interest rates, and GDP affect the demand for housing in Kenya.

The annual housing requirement in 2010 for Kenya is estimated at around 206,000 units (World Bank, 2011).This rises to over 280,000 units by 2050 at which point, all of the population growth and housing requirements are in the urban areas of Kenya. In addition, it is estimated that there is a current existing shortage of 2 million units, where households

are homeless, living in temporary shelters or in extremely low quality housing in slum areas.

Methodology

The study adopted descriptive research design. The study obtained information concerning the current status of the real estate industry for it to describe what exists with respect to objectives identified. The data yield from the design lead to recommendations in practice.

Nairobi county has seventy eight licensed property and real estate companies, one licensed mortgage finance company and 44 licensed commercial banks all offering mortgage financing, property finance, this provide a work force of approximately 244 middle level managers (soft Kenya, September 2014).

The study targeted a population of 13% (10 organisations) of the number of licensed property and real estate companies and finance company and 50% (22 banks) of licensed commercial banks. It is prohibitive in terms of time and financing to undertake a census. Therefore the sample of staff of 33 who are the middle level staff in their various organisations and institutions were chosen to participate in the study.

In order to summarise the research data, measures of central tendency- arithmetic mean, median and modes, measures of dispersion- variance, and its square root (standard deviation), measures of asymmetry (skewness-based on mean and mode or on mean and median), measures of relationship- Karl Pearson’s coefficient of correlation was adopted for the study and validity or reliability tests (Cronbach alpha). The data was analysed using descriptive analysis. The data collected was analysed using the Statistical Package for Social Scientist version 16.0.

Results

Forms of financing

The study findings as well as Osoro, (2014) agree on the clarity in scope for banks to do more in supporting the housing sector development. The financial sector, and banks especially, are able to intervene on both sides of the equation – they can support the development of homes as well as acquisition of homes.



Property loans growth rate was decreasing for the period approaching Q2, 2011 (25% to 24%) but fairly continued to rise until Q2, 2013 (32%), when it increased at a decreasing rate to 33%, this is however the case after the inflation and the MPC (Monetary Policy Committee) action to reduce the APR rate (annual percentage rate) and MPC rates.

The property developments grew for the period Q2 2011 (19.5%) but at an increasing rate (23.5%) for the period ending Q2, 2012. The later annual reduced to 19.5% in Q2 2013 before rising to 19.9% in Q2 2014. The annual mortgage rate and the property development loans rate moved in tandem, at an average flat rate of 17%. However the mortgage rate registered insignificant but higher rate than the property development loans rate. kariuki, (2012) notes that Mortgages has to be higher since banks charge a premium considering the risk factor of getting into long term loans unlike property development loans which takes short

periods. The risks is however kept low. The non-performing loan rate was below the 5% for the period ending 2014.

(Centre for Research on Financial Markets & Policy, 2015) Notes 8 percent of urban Kenyans to have access to housing finance and there are currently only 22,000 active mortgages in Kenya. This is not because Kenyans lack the desire to own a home—homeownership is a central part of the culture. Instead, it is the nascent mortgage market that equals only 2.5 percent of GDP (compared to 70 percent in the United States) and a financial market that suffers from a lack of long-term capital to on-lend as mortgages.

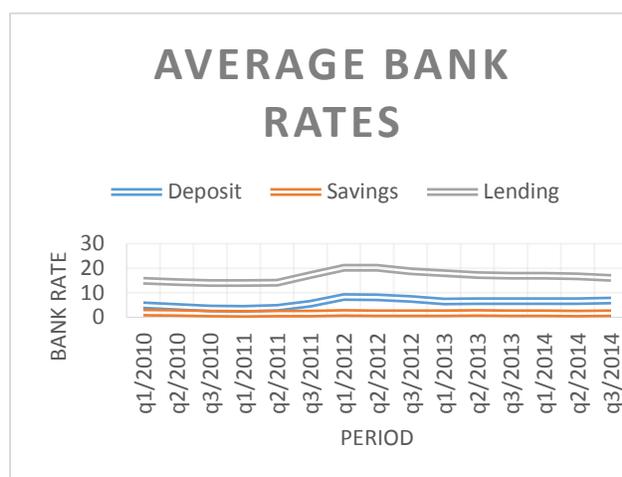


Figure: Average Banking Rate

Using the five year data from CBK, the study identified the main driver for the interest rate cut as a drop in government borrowing rates. The two-month weighted average 91-day Treasury bill rate, a component used to price the KBRR, dropped to 9.8 per cent as of July 2014. For the period Q2 2010 to Q2 2014, banks used to add an Average premium of 10% (base lending rate) to bank deposit for all loans offered. Before the rise in MPC in Q2, 2011 to Q1, 2012 and its fall from Q2, 2012 to Q2, 2014 as a result of government’s effort to curbing inflationary tendency shows that the central bank rate had an impact to the growth on deposits and the rates the banks charge.

Table: Accepted Collateral by Banks for Loans

	Percent
personal guarantees	22.2
mortgage liens	61.1
others	16.7
Total	100.0

With These loans, 61.1% of bankers prefer mortgage liens to personal guarantees. Respondents noted mortgage liens to be providing more security to personal guarantees. kariuki, (2012) Find the Barriers associated with home ownership financing to include the amenability of financing options. The study also established that about three quarters of home owners had only one financing option available to them. Additionally, some of the options available were very rigid locking out potential home owners from accessing them. The World Bank (2011) cites that affordability as a major hindrance in accessing mortgages.

Respondents gave the lowest mark to refinancing with other option since refinancing is much applicable to established property markets. The gated community concept a new entrant and most used by developers, lenders are also on the receiving end to provide loans for house purchase. Most bank clients prefer constructing their houses rather than purchasing an already built house, this also mean gated community houses cannot meet the demands of potential house buyers. Or majority of bank borrowers find features of an already constructed house not favorable as compared to constructing their own.

Banks rate low income levels, lack of credit history, high interest rates and lack of banks capacity as the highest to the lowest loans market constraints. Banks consider themselves adequately provisioned (at 11.1%), instead they (banks) shift blame to low income levels (38.9%) and credit capacity (33.3%) to be highest contributors to loan market constraints. interest rates scores low at 16.7%. There are only two existing credit reference bureaus to

analyze potential house buyers; this culminates into a hindering factor in analysis of credit risks.

Forms of Innovation and Property Growth Rate

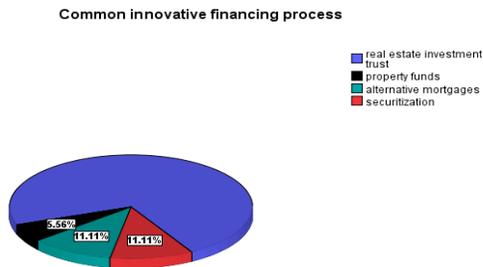


Figure 4.29: Common innovative financing process

Real estate investments trusts is the most common innovative property financing process at 75% of the banking respondents. The study findings is similar to (Osoro, 2014) findings on Investments in housing which are becoming increasingly sophisticated as the financial sector modernizes. Such sophistication entails usage of modern financial analysis tools and investment vehicles such as securitization and REITS.

Alternative mortgages and securitization attracted a tally at 11.1%, this percentage is significant for bankers who lend to real estate sector since banking institutions do not participate directly in the REITS market. Findings found property funds still at lowest penetration with 5.56%. Therefore, the penetration of innovative financing resources in the market is still in doubt due to the conservative nature of bank lenders.

The high response rate for REITS is due to reduced risk as it is from the securities exchange and a clear guideline provided by the bourse. Pension backed loans and property funds were not sighted by banks, this is due to the security of loan advanced to a borrower

whom other source of income or the productive life cannot be substantiated the study however is in contrast to RBA, (2014) paper who notes a significant penetration of pension backed loans and property funds.

Forms of Risk and their Impacts on Property Growth

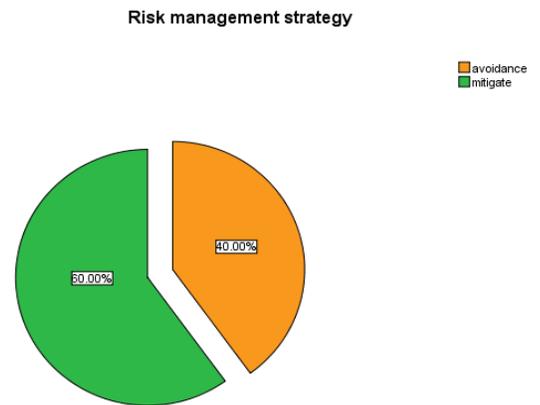


Figure 4.18: Preferred Risk Management Strategy

Among the most preferred risk management strategies are; avoidance, mitigation, sharing and retaining. Most (60% of the realtors) mitigate risks by optimizing, controlling, reducing, limiting, hedging, diversifying or doing due diligence. But because other risks can be mitigated by withdrawing, removing, or stop activities that increase risk 40% of the respondents considered avoidance as a risk management strategy. This explains the critical look by the developers while still avoid risks or look to control risks.

Risks affecting organizations can have consequences in terms of economic performance and professional reputation, as well as environmental, safety and societal outcomes. Therefore, managing risk effectively helps organizations to perform well in an environment full of uncertainty (ISO, 2015).

Risk assessment helps decision makers understand the risks that could affect the achievement of objectives as well as the adequacy of the controls already in place. ISO/IEC 31010:2009 focuses on risk assessment concepts, processes and the selection of risk assessment techniques. In summary, the international organization standards has ISO31000 risk management certification for organizations who seek certification in risk management. 40% of the respondents are ISO31000 certified while 60% have not been certified.

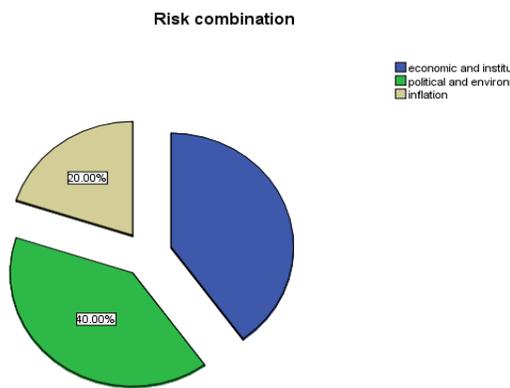


Figure: Risk Combinations

At 40%, both political / environmental and institutional risks attract the largest contribution to risk combinations that affect the real estate sector. 20% of the respondents found inflation to be a potential risk to the sector.

The inflation rate was easing after the quarterly rate eased since start of the year. Borrowers as well developers were much affected by inflation for the periods Q2, 2011 to Q1, 2012 since the cost of borrowing was high, therefore few tended to buy properties. At the same time the inflation rates were high the Kenyan currencies was at all-time low against the US dollar. Fellow east African economies were undergoing the same inflationary and currency exchange instability.

Housing Demand on the Growth of Housing Units

During the year end (Q3) 2014, the Hass Composite Property Sales Index, a measure of asking sales prices of residential properties, rose by 4.7%, a sharp improvement from the insignificant year-on-year increases of 0.05% in Q2 2014, 1.7% in Q1 2014, and 0.3% in Q4 2013 (properties in Kenya, 2014).

According to the World Bank report 2011 the demand of new housing units is higher in urban areas than in rural areas. This demand is higher than the supply AfDB, (2013), an attribute that has resulted in increased pressure on house prices. (Centre for Research on Financial Markets & Policy, (2015) acknowledge that other market players in residential house market such as savings and credit cooperative organisations (SACCOs) are increasingly playing a role on the supply side; it is worth noting that a large portion of the houses whose construction they support are not for the market but for the occupancy of the benefiting members.

At 64%, residential type housing ranks at the highest, followed by retail at 30% and remainder 10% for office in terms of demand in the market. The increase in residential demand is as a result of growing rural to urban migration, and the increasing income for city dwellers (Hasannali, 2013). This is explained by the much less number of companies who have ventured in residential (gated community housing) as compared to those who build properties to retail and office blocks. (osoro, 2014) Find the typical ways of acquiring homes to include buying, building and inheriting.

Summary

For the real estate market to meet the vision 2030 blueprint on housing, it must be supported in order to grow at a faster pace than it currently does. The demand for housing is much pushed by the Rapid growth in population

and urbanization and changing socio-economic patterns in Kenya.

The main home financing product from banks is a mortgage, the imbalance between the number of mortgages and the number of housing units available suggest that there are other sources of financing, these are equity and savings. Osoro, (2014) notes savings as the major source of financing.

The financial sector, especially banks, can intervene on both sides of the equation – they can support the development of homes as well as acquisition of homes. It is clear that there is scope for banks to do more in supporting the housing sector development. Hassanali (Q2, 2011) also agree that when looked at in the narrow sense of one product (mortgages), the role of banks in promoting this key sector is understated in Kenya in terms of number of mortgage loans.

The risks can be specific such as economic, business, financial, physical, regulatory or political, legal, tenant, health and safety, or what Sitthiyot, (2011) categorizes risks into; Operational risk-(the risk to operate, manage or maintain the business activities). Businesses need innovations to improve performance (Tharachai, 2009). Innovations help companies generate some forms of competitive advantage through improvements that yield desirable outcomes. Ripin Kalra, (2012) also found that Innovations can decrease cost, save time, improve cash flow, create distinctive consumer preference increase quality, and minimize uncertainty or a combination of these.

In real estate development, forms of innovation can be categorized into: the product innovation (changing exterior designs, layouts or building functions and adding special features), the process innovation (business process innovations in construction, finance and marketing create competitive advantages for real estate developers.), material innovation (Major material innovations include the use of autoclaved aerated concrete (AAC), fiber

reinforced concrete, geo-textiles, and synthetic wood for construction.) and ICT innovations. The innovative financing and ownership structures also identified by (Ruth O, 2014).

Innovative financing processes include real estate investment trusts (REIT), property funds, alternative mortgages and securitization. Innovative marketing includes digi-marketing and peer-to-peer marketing.

The country is currently experiencing a housing boom, with a highly speculative property market and high unmet demand driving Kenya's residential property price inflation. This housing boom has a negative impact on the ability to provide commercially viable homes at an affordable price. The demand side (end-user finance) is underdeveloped. This is not because Kenyans lack the desire to own a home—homeownership is a central part of Kenyan social system (Aden, 2013). Instead, it is because of low mortgage market affordability. Kenyan demand for housing is higher than the supply (AfDB 2013), an attribute that has resulted in increased pressure on house prices. The higher prices for homes have led to a scenario that home owners are resulting to self-building (Finaccess 2009).

Conclusion

Much focus has been in promoting the development of the property markets in Kenya, making Kenya's real estate industry one of the most vibrant in East Africa. Values in Kenya's residential property market continue to rise, with the robust economic growth and a sharp increase in the population of middle-class and expatriates. Kenyan Government incentives have also participated to catalyze real estate development through its systems of land ownership and administration and legal systems

though not to the standards demanded by real estate players.

There is an increased development of residential properties due to a favorable market for developers. The growth in property prices is a result of reduced interest rates in part of the period under discussion (2010-2014). The Kenya's property purchases are cash-based transactions. Because of this, the mortgage market remains underdeveloped. The study expect the property market to remain strong in coming years.

Property Loan market penetration is still low, Part of the reason is lack of affordability due to a combination of low incomes, high interest rates, high inflation and the inability of the financial markets to cater for long-term funding. Most housing units built is financed primarily through debt. Considering the time needed for construction, potential delays as well as high and fluctuating interest rates, the cost of debt weights negatively on the total financing structure of developments.

In addition, access to equity and savings are in short supply making financing thornier as it becomes difficult for developers and financiers to become eligible for loans. The mortgage penetration though not they only key to house growth is still very low compared to other types of loans offered in the loan market. One of the cited negative issues about mortgages is high

interest rates which make them very expensive and out of reach of some of the middle class potential house buyers. Additionally, mortgage terms are perceived to take very long before one completely owns the home.

New homes are considered expensive and therefore beyond what a majority of the urban population can afford combined with the rigidity in home financing options constrains increased home ownership. This barrier is augmented by the perception of a persistent high interest rates regime.

High levels of inflation, currency and interest rates in 2011 and 2012 had negative impact on house prices, especially for those variable interest rate mortgages which were as high as 30%. However the sector is slowly recovering following the reduction of interest rates to between 15% and 20% (still high by international standards).

Using alternative technologies can be challenging in the Kenyan market, but if adopted accurately, it has the potential to be an essential piece of bringing down the housing cost. The vital aspect to be aware of is ensuring that the look and feel of the home is similar, if not the same, as traditional techniques. ICT technology has played a major part in collecting and analyzing personal marketing data, tracking construction information or real estate

transactions. Technology harnessing ICT technologies can create competitive advantages and enhance a developer’s overall strategy if properly implemented. Construction innovation is traditionally is a technical innovation that increases the feasibility and quality of construction projects, thereby producing social and environmental benefits that would otherwise have been unachievable.

Demand for housing in Kenya is increasing and so is home ownership. The prevailing demand and supply conditions however point to the fact that the growth in house ownership is constrained by the preferences in both the mode of acquisition and funding options. With regards to demand and supply, findings suggest that there is large formal housing deficit fuelling price hikes in Kenya. Providing more affordable homes and housing finance in Kenya is not impossible.

Optimal Model

(4 being the highest, 1 being the lowest)

Variable’s Rank operationalized item	Rank of the
4. The demand and supply factors of houses	3. Residential
	2. Retail
	1. Commercial/office
3. Availability of the alternative forms of financing	3. Savings
	2. Debt financing (mortgages & property development)
	1. Equity financing
2. Types of risks (mitigated) that affect growth of real estate industry	4. Inflation
	3. Interest rates
	2. Currency
	1. Institutional
1. Alternative innovative techniques in housing construction	4. Materials innovation
	3. Product innovation
	2. ICT Innovation
	1. Process innovation

Recommendation

Kenya needs to mobilize large amounts of private capital from either primary or secondary market in order to start tackling its unmet housing demand. Growing the size and reach of the mortgage market is part of the solution for the upper and middle income urban segments of the population. Mortgages alone cannot be the only hope to satisfy the entire housing demand. Solutions are also required for lower income groups in the form of housing microfinance, rental frameworks and financing for self-construction, especially on an incremental basis.

All the options to (avoid, mitigate, share or retain) risks are existent in real estate industry, therefore mitigation and sharing of risk can be done with support from authorities and institutions by regulations or other mechanisms. Construction rate regulations through an authority and insurance products such as title insurance should be made part of requirements in order to compensate possible damages from risks.

Kenya property developers association in conjunction with property regulators/ lenders should set up Property Benchmark (as CBK's KBRR rate) and periodically publish overall performance of market for investors and potential house owners' benefit.

Innovations save on cost, time to build, and improve cash flow, therefore, for modern innovation in house development and financing, House developers needs to do more marketing and/ or build houses which resembles the usual stone and cement but still at an affordable prices so that it can attract market niche. Although process innovations are often more difficult to implement, they normally impact a company's performance significantly and perhaps more importantly are difficult to imitate.

The government is still a relatively passive player in the housing sector. The government can act through various agencies, pieces of legislation, and incentives to improve stakeholder capacity with the purpose of increasing affordable housing supply and demand.

References:

- Aden, V. (2013). *ABCs of affordable housing*. Acumen Fund.
- AfDB. (2012). *Kenya economic outlook*. www.africaeconomicoutlook.org.
- Australia, R. b. (2014). *statemet on monetary policies*. Reserve bank of Australia.
- ayani. (2013). *kenya housing market mapping and value chain analysis*. nairobi: centre for innovation in shelter and finance.
- Blayse, A. a. (2006). *Key Influences on Construction Innovation”, Construction Innovation*.
- Broll. (2012). *annual property report*. Retrieved from broll report: <http://www.broll.co.ca>
- Centre for Research on Financial Markets & Policy. (2015). *The State of Urban Home Ownership in Kenya: A Survey*. nairobi: kenya bankers association.
- economic outlook. (2012). *economic outlook kenya*. nairobi: www.africaeconomicoutlook.org.
- hassanali. (Q1, 2013). *Property market hesitates in election run-up*. hass property index.
- Hassanali. (Q1, 2014). *quarter one report*. nairobi: hass property index.
- hassanalli m. (2012). *Q4 report*. nairobi: hass property index.
- ISO. (2015). *ISO 31000 - Risk management*. international organisation for stundardization.
- jianping. (2013). *china housing policy and housing market*. china: university of china.
- JLL. (2014). *capital markets research*. Commercial Real Estate Transaction Review.
- k., c. (2014, q1). Retrieved from innovation, change theory and acceptance of new technologies: <http://www.educationtechnology.ca>
- (2014, q1). Retrieved from south africa properties: <http://www.southafrica/propertyinsouthafricarealestate>
- Kajander, J.-K. (2009). *Challenges for Sustainability Innovations in Real Estate and Construction Industry*. Aalto University School of Engineering.
- kariuki & hassanalli. (Q2, 2012). *mortgage special report*. nairobi: hass property index.
- kariuki, c. (2012). The Factors Affecting Residential Property Values in Nairobi, Kenya. *8th FIG Regional Conference 2012*, (pp. 2-6). Montevideo, Uruguay,.
- kariuki, hassanalli. (Q3, 2012). *mortgage special report*. nairobi: hass property index.

- mark, s. g. (2003). *assessing the importance of property development risk factors*. pacific rim property research journal, vol 12.
- michael turner. (2013). *Why Kenya's real estate sector is robust* . nairobi: business daily.
- muijs. (2006). *doing quantitative research in education with SPSS* . london: sage publications.
- mwathi, j. (2013). *the effect of financing sources on real estate development in kenya*. nairobi: university of nairobi.
- NLC. (2014). *NLC mandate*. nairobi: national land commission.
- okpa, e. (2014). *Kenya Property Market Rating: Reality or Bubble?* dallas, texas: the african executive.
- osoro. (2014). *The Centre for Research on Financial Markets and Policy*. nairobi: kenya bankers association.
- owino, d. (2011). *kenya property*. nairobi: centre for international private enterprises & institute of economic affairs.
- Population Matters. (2013). *population growth and housing expansion in the UK*. Population Matters.
- properties in kenya. (2014). *outlook for kenya property markets looks positive*. nairobi: kenyan real estate investments.
- RBA. (2014). *Statement of Monetary Policy*. reserve Bank of Australia.
- Ripin Kalra. (2012). *Addressing Climate Change with Low-Cost greening housing*. nairobi: the World Bank.
- ruth okal. (2014). *2014 market update*. nairobi: knight frank.
- sapoa. (2012). *SA Property Market*. IPD.
- Sitthiyot, N. (2011). *Risk Management of Small Real Estate Management Firms: The Study of Residential Real Estate Market in Zurich, Switzerland*. Stockholm: KTH architecture and built environment.
- sukulpat, k., & c., z. (2010). *risks assessment in real estate development: an application of analytic network process*. liverpool: liverpool john moores university.
- Tharachai, T. (2009). real estate development- industry innovation factors. *GH BANK HOUSING JOURNAL*, 32-50.
- waley, s. (2011). *kenya expanding mortgage finance*. the world bank group.

Ruitha. J.(2011) *Emerging Opportunities in the Housing Industry in Kenya, the National Housing Corporation (NHC)* As Retrieved in August 2014 from [Http://:www.nhc.go.ke](http://www.nhc.go.ke)

Tharachai T. (2010)Real Estate Development Industry Innovations - Influencing Factors GH Bank Housing
Journal

Yannis A. (2013).*African Housing Dynamics: Lessons from the Kenyan Market*. Volume 4, Number 3,
Africa Economic Brief African Development Bank.