International Journal of Innovations, Business and Management (IJIBM

Vol. 10, No. 6 (2016)

ISBN 978-9966-098-62-7

www.arksonline.org

INFLUENCE OF MORTGAGE FINANCING ON PERFORMANCE OF HOUSING PROJECTS IN NAIROBI, KENYA: A CASE OF KENCOM HOMES RUNDA PROJECT

Thaara Ednah Nkatha

(Corresponding author)
Jomo Kenyatta University of Agriculture and Technology
nkathathaara@gmail.com

Dr. Susan Were
Jomo Kenyatta University of Agriculture and Technology

Abstract

Housing project is a major purchase requiring mortgage finance in developing country. In Kenya, the housing projects has been funded mostly by commercial banks through mortgage financing yet many housing projects are taking too long to complete while experience cost overrun. This study therefore sought to determine influence of mortgage financing on performance of house construction project in Nairobi City County focusing on Kencom SACCO Runda Homes Project. This research study adopted a Cross-sectional descriptive survey design. The target population used for the study was 150 staff working at KENCOM SACCO. The study adopted stratified random sampling technique to select a sample size of 50. The study used both primary and secondary data.Questionnaire was used to collect primary data. Secondary data was collected for this study from KENCOM SACCO housing financing status reports. Descriptive analysis and inferential analysis examined the relationship between influences of mortgage risk factors in mortgage financing and performance of Kencom SACCO Runda Homes Project. The study found that that mortgage risk factor influenced performance of KenCom SACCO Runda Homes project. The study concluded that mortgage risk factors influenced KenCom SACCO Runda Homes project performance to a great extent.

Key Words: Mortgage Financing, Mortgage Risk Factors And Homes Project Performance

INTRODUCTION

Mortgage loans are secured by the real property, and provide a schedule of payments of interest and repayment of the principal to a bank. Most mortgage contracts arrange for loans to be fully amortized with adjustable mortgage interest rates and either payment or maturity is fixed for the term of the loan (Arimah, 2000). The mortgage market is important for housing because it makes the investments of real property divisible thereby allowing households more flexibility in adjusting intertemporal allocation of savings and housing consumption between the present and the future as desired (Ma, 2003). Housing is a major purchase requiring mortgage finance, and the factors that are associated with well-functioning housing finance systems are those that enable the provision of long-term finance. It is evident that countries with stronger legal rights for borrowers and lenders through collateral and bankruptcy laws, credit information systems that are well informed, and a stable macroeconomic environment have more developed housing finance systems (Turkmen & Demirel, 2012).

Housing Construction projects comprise of five major phases namely planning, programming and design, procurement, construction and project close out. Each phase has its own typical risks. The risks facing house construction project management include poor scope definition, poor estimates and budget based on incomplete data. The programming and design may have risks such as over-design, poor constructability, poor estimating and scope creep (Nabutola, 2004.) The procurement phase is often plagued by risks of incomplete documents, poor contracting strategy, insufficient competition and fraud in the bidding process. The construction phase is faced with risks of change orders. Risk and uncertainty can potentially have damaging consequences for the housing construction projects. Risk analysis and management continue to be a major feature of the project management of house construction projects in an attempt to deal effectively with uncertainty and unexpected events and to achieve project success (Lai, Xu, & Jia, 2009).

Housing Project performance is measure in terms of cost, time, quality and profitability, customer or stakeholder's satisfaction. Project Management Body of Knowledge guide (PMBOK) defines cost estimates as a developed approximation of the monetary resources needed to complete project activities. The accuracy of cost estimates starting from the planning phase of a project through to the tender estimate can affect the success or failure of a construction project. Many failures of construction projects are as a result of cost escalations (Laquindanum, 2010). The process of determining the project budget involves aggregating the estimated costs of individual activities or work packages to establish an authorized cost baseline

(Gulyani, 2006). Earned value is a management technique that relates resource planning to schedules and technical performance requirements. Earned value management (EVM) is a systematic process that uses earned value as the primary tool for integrating cost, schedule, technical performance management, and risk management.

Housing Construction Corporation and commercial banks in Uganda has worked out schemes through which middle income earners can access finance for funding real estate project. The residential, commercial and office buildings projects that the real estate developers have Built remain with a 50-70% occupancy, others left 65% complete (Dolde, 2006). According to the Agaba *et al*, (2008), Uganda's prime rents have declined by up to 20% from a decade ago on the back of increased supply which caused the half occupancy of these buildings and complain of low quality house project constructed. Ebie (2003) stated that rent in major cities in Nigeria is about 60% of an average workers disposable income. This is very much higher than the 20-30% recommendation of the United Nations. Most construction projects in Rwanda experience cost variations and completion delay problem. The Kigali convention Centre has been under construction for 6 years while the contract period was less than three years. The Auditor General's annual report highlights delays and cost overruns in Bushenge hospital and wasteful expenditure in the proposed King Faycal expansion project (Office of the Auditor General of State Finances (OAG, 2013). In Ghana, households' incomes from house projects are low, indicators of failure in house project (Ferguson, 2013)

Housing Market in Kenya has a large housing gap which is growing every year and is increasingly prevalent in urban areas. The current annual housing deficit is high as developers face barriers to funding sources. For its level of development, Kenya's capital Nairobi has experience high demand for housing due to the growing population. The revelations also indicate that the total commercial bank mortgage loan book in the country was only 16,000 accounts, while the total value of mortgage loans, as at the end of December last year was Sh133.6 billion (CBK, 2014) was only 8% of the Kenya population have mortgage revealing the high demand for houses. Mortgage loans have become an important aspect of loan portfolio among commercial banks in Kenya Majority of Commercial Banks have turned into mortgage financing (Macharia, Stock, & Mbai, 2012). An efficient housing finance system is determined by mortgage risks management construction, finance and other related sectors of an economy. In Kenya, funding of house construction project has been on the rise influence high demand for mortgage loans (CBK, 2015).

Statement of the Problem

An efficient housing finance system has significant importance both in meeting the housing needs of individuals and in reinforcing the development of the house construction, finance and provide quality housing. Cheong', Olshansky and Zurbruegg (2011) did a study on the influence of real estate risk on market volatility among listed real estate firms in the UK between 1990 to 2010 and revealed that volatility in the financial industry is critical and plays a major role in the market volatility and market volatility is positively related to real estate industry thus leading to financial crisis (Alder & Mutero, 2007). Financial services industry is vital to an economy and it is the major driver of market risks. Market volatility of real estate risks are major drivers of financial crisis experienced in the UK affecting mortgage financing. RIETs are fundamental component in the economy since it is used to pool financial services but firms utilize RIETs for speculative purposes thus increase in real estate volatility. The risks at construction project planning in Rwanda include poor scope definition, poor estimating and development of a budget based on incomplete data affecting house project performance (Calomiris, 2011). The mortgage risk management practices required at this stage include risk profiling and identification, the architect and engineer selection process, construction site review and validation needs identification and validation and preliminary budget and schedule development.

In Kenya, the housing projects has been funded mostly by commercial banks through mortgage financing yet many housing projects are taking too long to complete while experience cost overrun (CBK, 2015). This creates a large housing gap which is growing every year and is increasingly prevalent in urban areas. Nganga (2011) indicate that the annual increase in demand for housing in Kenya is 82,000 units required in urban areas. In 2014, the Ministry of Housing estimated that the formal supply of houses to the market reached 50,000 creating a 156,000 shortfall which added up to the 2 million units existing deficit. In 2015, it is estimated that further 85,000 units were also added to the backlog (CAHF, 2012). The high demand for housing has led to real estate developers seeking mortgage finance from financial institutions to fund house construction projects. This has led some banks introducing 100% mortgage financing for the full value of a house while Housing Finance Corporation of Kenya with its ingenuity and innovativeness introduce a mortgage that covers 105% of the costs including professional fees (Chijoriga, 2000). Commercial banks mortgage loans growth rates has been rapid at just under 50% since 2006 and has been growing steadily at 14% annually despite high risks. However, housing projects sometime stall and experience cost overruns. For stance, KCB Bank

provides a 5/1 ARM with payments amortized over 15 years and 15 year fixed mortgage finance option to Kencom SACCO (KCB, 2016).

Despite increase in mortgage financing, Kencom SACCO homes project in Runda remains incomplete and experience cost overruns. There is a need therefore to determine the influence of bank mortgage risk factors on housing project performance. Despite increase in mortgage financing of housing construction projects the extent to which mortgage to success of the housing project has not been empirically determined. This leave research gaps in literature. This paper therefore sought to determine influence of mortgage risk factors in mortgage financing on performance of house construction project in Nairobi City County focusing on Kencom SACCO Runda Homes Project.

Objective of the paper

To assess influence of mortgage risk factors on performance of Kencom SACCO Homes Project

LITERATURE REVIEW

Prospect theory is a theory of decision-making under conditions of risk (Tversky & Kahneman, 2009). Decisions involve internal conflict over value trade-offs. This theory is designed to better describe, explain, and predict the choices that typical person makes in a world of uncertainty. The theory addresses how these choices are framed and evaluated in the decision making process. Prospect theory advances the notion that utility curves differ in domains of gain from those in domains of loss. Prospect theory is designed to explain a common pattern of choice. It is descriptive and empirical in nature. Prospect Theory looks at two parts of decision making: the editing, or framing, phase, and the evaluation phase (Tversky, 2007). Framing refers to the way in which a choice or an option can be affected by the order or manner in which it is presented to a decision maker. The evaluation phase of a prospect theory encompasses two parts, the value function and the weighting function. The value function is defined in terms of gains and losses relative to the reference point not in terms of absolute wealth. In prospect theory, value is a function of change with a focus on the starting point so that the change is either negative or positive. Prospect theory predicts that domain project costs and fund disbursement influence project performance (Tse, 2002).

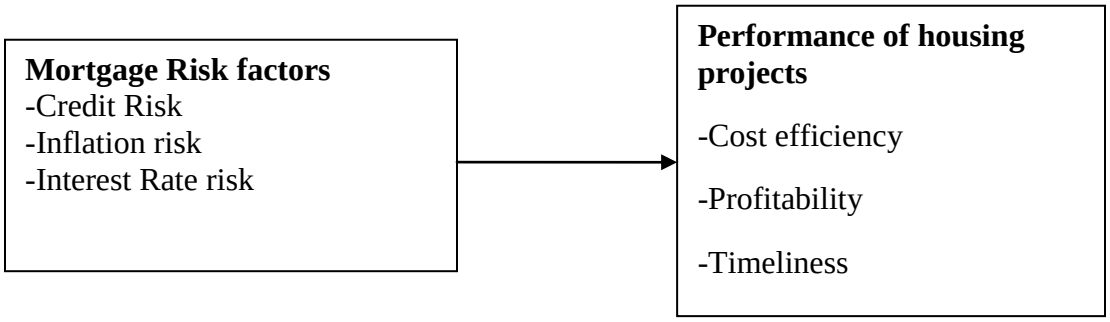
Cost delays in project financing poise greater risks that may lead to occurrence of other problems that may affect the delivery of the project. Occurrence of financial

risk impacts on housing construction projects by adversely affecting the planned expenses, project schedule, project costing and quality of works. Both increased housing project duration and poor quality is expressed as an increased expenses. Effective management of project risk is the process that, when carried out, ensures that all that can be done will be done to achieve the objective of the project, within the constraints of the project (Chinloy 2005). This theory of prospect indicate that management requires to management housing project includes planning for risk, identifying risks, analyzing risks, developing risk response strategies, and monitoring and controlling risks. Housing construction projects are complex human endeavors' that entail extensive planning and tight costs control if they are to be successful. With effective planning of the project occurrence activities, costs overrun, delays in project delivery is reduced and quality of housing achieved and profitability (Hancock & Wilcox, 2006). Overriding costs are especially risky since they can trigger a whole array of new project problems, such as delays in project delivery, the impossibility of attracting supplementary financial support, quality housing project and finally, project failure. This theory of prospect support the mortgage risk factors as management requires to manage housing project require planning for risk, identifying risks, analyzing risks, developing risk response strategies, and monitoring and controlling risks to achieve better performance in house projects (Tsatsaronis, & Zhu, 2004).

The building sector, in specific, is a complex sector including multiple participants and multiple transactions resulting in very high TCs in itself. Implementing energy efficient technologies in this sector, further increases the already high and often not encountered TCs. Despite uncertainties, some strategies and policies have shown to have the potential to reduce TCs for improving energy efficiency in buildings. At the managerial level, for instance, procedure standardizing, full life-cycle cost accounting and learning via project bundling are worth exploring. These strategies can reduce costs of search for information and monitoring and verification. Before to execute a project, the organization needs to evaluate its resources and make it with its own resources to minimize transaction costs (Müller and Turner, 2005).

Conceptual Framework

A conceptual framework provided a link between independent and dependent variables .The study was guided by a conceptual framework which linked independent variables, Mortgage Cost of funds, mortgage pricing, mortgage risk factors and mortgage finance disbursement to dependent variable performance of housing projects.



Independent Variable Moderating Variable Dependent Variable

Figure 1: Conceptual framework

Mortgage Risk factors and Housing project Performance

Risk management is one of the nine knowledge areas propagated by the Project Management Institute (PMI, 2008). Risk management in the construction project management context is a comprehensive and systematic way of risk identification, risk analysis and risk response with a view to achieving the project objectives (ICE, 2005). In the construction industry, risk is often referred to as the presence of potential or actual threats or opportunities that influence the objectives of a project during construction, commissioning, or at time of use (Thomson & Buckle, 2005). Mitigating risk by lessening their impact is a critical component of risk management. Implemented correctly, a successful risk mitigation strategy should reduce adverse impacts. In essence a well-planned and properly administered risk mitigation strategy is a replacement of uncertain and volatile events with a more predictable or controlled response (Chapman & Ward, 2007). The ability to govern or to set up control mechanisms for costs, schedule and quality in a construction project reduces rapidly as you move through the project lifecycle .The control activities at the planning stage

are risk profiling, architect and engineer selection process, architect and engineer contract review, site selection and validation, need identification and validation and preliminary budget and schedule development (Wallace & Blumkin, 2011).

Risk profiling involves finding an optimal investment risk by considering the risk required, risk capacity and risk tolerance of the client. Risk management is a difficult aspect of project management. The project manager must be able to recognize and identify the root causes of risks and correlate them to their effects on project performance. Risk management in the construction project management context is a comprehensive and systematic way of identifying, analyzing and responding to risks to achieve the project objectives (PMI, 2008). Major decisions and influence on the choice of alignment and selection of construction methods are made at the early stages of a project, making risk management at this stage very essential (Zhou, Zhang, & Wang, 2007). A typical risk management process includes risk identification, risk assessment, risk mitigation and risk monitoring. Risk identification process attempts to identify the source and type of risks. Risk identification involves the recognition of potential risk event conditions facing mortgage financing in the construction project and the clarification of risk responsibilities (Walley, 2011). Risk identification is the basis for analysis and control of risk management and ensures risk management effectiveness influencing effective financing of housing construction projects. The identification and mitigation of project risks are crucial steps in managing successful projects (Buckley & Kalarickal. 2004).

Funds for real estate development in Ghana are acquired through diverse sources. Some are obtained through the debt finance with some relatively few banks in the country giving financial support to real estate developers provided all requirements are fulfilled. Surveys throughout the country also indicate the persistence of informal financing methods such as the use of homeowners' own sweat equity, barter arrangements and remittances from abroad (Calomiris. 2011). The loans acquired are given on short, medium and long terms repayment period with interest rates charged on them. There are various forms of funding that can be considered by real estate firms in Ghana. Some of these are bonds, mortgage facilities stocks investment trusts, merchant and commercial banks and mortgage companies.

Project performance is the overall quality of a project in terms of its impact, value to beneficiaries, implementation effectiveness, efficiency and sustainability. The ultimate importance of project performance is achieved through avoiding the project's failure to keep within cost budget, failure to keep within time stipulated for approvals, design, occupancy and failure to meet the required technical standards for

quality, functionality, fitness for purpose, safety and environment protection (Ferguson, 2013). Project performance ensures that enterprises maximise on profitability, minimise the consequences of risky and uncertain events in terms of achieving the project's objectives and seizes the chances of the risky events from arising (Kluger & Miller, 2010). The benefits of project risk management for small businesses lie at the point of time and budget project advantages. It is understandable why there are as many models of project risk management as general risk management schemes. Lieser and Groh (2011), noted that high-tech SMEs in China shows a range of performance of small technology firms through production of quality IT products, completion of project within expected time, expected budget and improve customer satisfaction. The criteria of project performance for the project will be cost, time and quality which are basic elements of project success. Quality is all about the entirety of features requisite by a product to meet the desired need and fit for purpose. To ensure the effectiveness and conformity of quality performance, the specification of quality requirements should be clearly and explicitly stated in design and contract documents.

Ho (2004), sought to determine measures of a successful project are that it has delivered a successful outcome to the business. Closely related to this is project management success which entails delivering a project to the agreed scope, time, cost and quality while maintaining a customer relationship and not burning out the project team. Kimeu (2008) carried out a survey on credit risk management techniques on unsecured bank loans of commercial banks in Kenya for the period 2004 to 2007 and found out that market risk, credit risk, operational risk and event risk are the major risks prevalent in the banking industry nowadays. Wanjohi, and Mugure, (2008) Carried out a study on the effects of risk management on performance of civil servant housing project. The study revealed that construction companies have implemented Project risk management to minimize project delays, overruns and failures.

Measure of Performance of Housing Projects

Project time performance is established by measuring, comparing and analyzing schedule performance such as actual start and finish dates, percent complete, and, remaining duration of work in progress. The performance is assessed by the use of techniques such as earned value management (EVM), schedule variance (SV), schedule performance index (SPI). These techniques help to assess the magnitude of schedule variances. The critical chain method compares the amount of buffer remaining to the amount of buffer needed to protect the delivery date and thus can help determine the schedule status (John 2012). Performance of Real Estate project

has long been aware of the challenges of translating the returns of property investment into reliable time series data (Green & Wachter (2005).

Projects success is difficult to predict with any accuracy and each delay causes certain risk factors. Delay factors may be prioritized based on the importance of the activity being delayed and the amount of risk involved in each activity. The degree of seriousness of delaying in construction projects varies considerably from projects which were only a few days behind the schedule to projects which delayed over a year .The successful execution of construction projects within estimated margin cost and planned schedules depend on chosen method that requires good in both engineering and economic judgments Stefanou, (2009). Cost and schedule performance are the primary measures of a project's success. A project is said to be successful if it is completed within the planned cost and time. Developing countries are faced with the problem of scarce project financial resources.

RESEARCH METHODOLOGY

Research Design

This research study adopted a cross-sectional descriptive survey design. According to Cooper and Schindler (2003), descriptive survey method is focuses on finding out who, what, where, when and how much. This study sought to establish the extent to which mortgage financing influence performance of KENCOM SACCO Homes Runda Project housing project in Nairobi County. According to Kothari (2004), a descriptive design involves planning, organizing, collection and analysis of data so as to provide information being sought. This design also helps in collecting qualitative data to provide a great depth of responses resulting in a better and elaborate understanding of the phenomenon under study.

The cross-sectional descriptive survey design is a research design that describes variables. This design helped the study to collect quantitative and qualitative data. These provided responses on information require by the study and that helped in testing hypotheses or to answer the questions of the current status of the subject under study. The research design was deemed fit to establish determine the influence of mortgage financing on performance of housing project in Nairobi County, Kenya focusing on a case of KENCOM SACCO Homes Runda Project The target population used for the study was 150 staff working at KENCOM SACCO. The study population involved managers, financial officers, credit analysts, project managers, operation managers, and Supervisor and quality control officers making total of 150 respondents. For the purpose of this study, a sample frame constituted

managers, financial officers, credit analyst, project managers, operation managers, and Supervisor and quality control officers making total of 150 respondents.

Sample Size

The sample size 109 was calculated based on Yamane's formula (Yamane, 1967). The study adopted stratified random sampling technique to select respondents who represented the target population. Stratified sampling method was used as it is involves dividing the target population into various units based on any unifying characteristics as age, gender or religion. The questionnaire was used to collect primary data and had both open and closed-ended questions. The respondents of the study were staff working at Kencom SACCO Runda Homes Project. Primary data was used to address the constructs of mortgage financing which included mortgage costing, mortgage pricing, mortgage risk factors and mortgage finance disbursement and project performance for dependent variable. Secondary data was collected for this study from KENCOM SACCO housing financing status reports. The questionnaire was administered through drop and pick approach.

Data Analysis and Presentation

Descriptive analysis was done to establish the extent to which mortgage financing influence housing project performance Descriptive analysis included percentages, frequencies, means and standard deviations. Content analysis was used for qualitative data and inferential analysis was carried out to determine whether there exists a significant relationship between mortgage financing and housing project performance. The study was undertaken correlation matrix analysis to examine the association between influences of mortgage financing and performance of Kencom SACCO Runda Homes Project. The correlation and regression analysis was examining the relationship between influences of mortgage financing and performance of Kencom SACCO Runda Homes Project. The study used analysis of variance (ANOVA) to determine whether there exists a significant variation between variable in the regression model.

Data Findings, Analysis and Discussions

The findings indicated that out of 109 questionnaires administered, 96 were completed and returned. From the results 43% of the respondents were aged between 20-30 years, 22% of the respondents were aged Between 31 and 40 years and 20% of the respondents were aged between 41- 50 years. The results also indicated that 15% of the respondents indicated that they were aged 51 years.

Mortgage Risk factors

The study sought on whether the management of KenCom SACCO Runda Home project institute risk management programmes. From the finding in Table 2, majority all the respondents indicated that the management had instituted risk management programmes. The finding agreed with Cheong', Olshansky and Zurbruegg (2011) who found that increase in real estate risk on market volatility affected listed real estate firms project in the UK between 1990 to 2010.

Table 2: Management institute risk management programmes

	Frequency	Percentages
Yes	96	100
Total	96	100

Extent to which interest risks influence mortgage financing project performance

Respondents were requested to indicate the extent to which interest risks influence mortgage financing of KenCom SACCO Runda Home project performance. From the findings, majority 70% of the respondents indicated that interest risks influence mortgage financing of KenCom SACCO Runda Home project performance while 30% of the respondent indicated that interest risks influence mortgage financing of KenCom SACCO Runda Home project performance to a great extent as supported by Cheong'(2011).

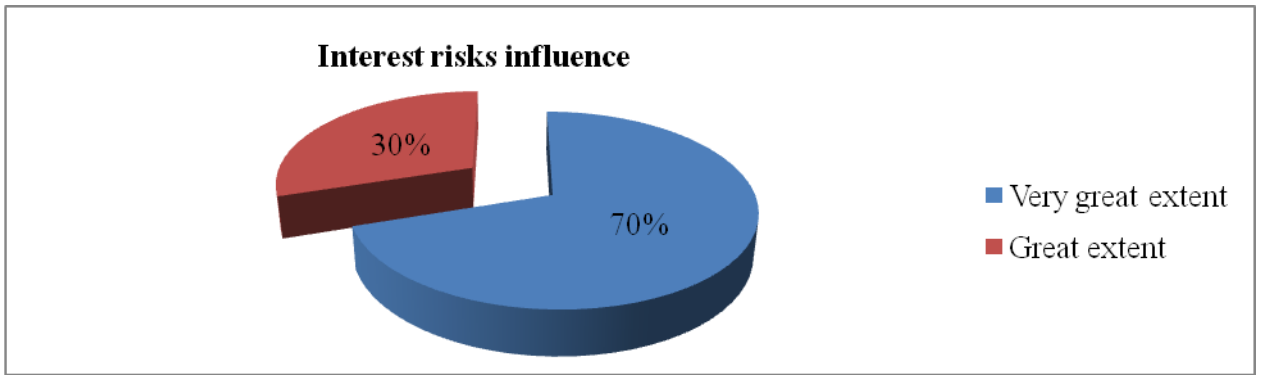


Figure 1: Extent to which interest risks influence mortgage financing project performance

Mortgage Risk Factors Influence Performance of KenCom SACCO

The study sought the extent to which mortgage risk factors influence performance of KenCom SACCO Runda Home project. From the findings in Table 3, majority of the respondents indicated that the management engages in risk identification as indicated by a mean of 4.81 with standard deviation of 0.77, effective planning of risks and allocation of resource for effective management of risks with a mean of 4.78 and standard deviation of 0.74 and monitoring of risks with a mean of 4.70 and standard deviation of 0.67 enhance performance of mortgage financing of the project to a very great extent. Most of the respondents indicated that economic performance of the economic was assess to determine the impact of inflation facing the project as indicated by a mean of 4.42 with a standard deviation of 0.46 and capacity to repay mortgage loan by management of KenCom SACCO Runda Home project to a great extent as indicated by mean of 4.35 with standard deviation of 0.49. The finding concurred with Flanagan, Norman, & Chapman, (2006) who observe that mortgage risks and management influence project management of house construction projects in an attempt to deal effectively with uncertainty and unexpected events and to achieve project success.

Table 3: Extent to which mortgage risk factors influence performance of KenCom SACCO

Statement	Mean	Standard deviation
The capacity to repay mortgage loan by management of KenCom SACCO Runda Home project	4.35	0. 49
The economic performance of the economic is assess to determine the impact of inflation facing the project	4.42	0.46
The management engage in risk identification	4.81	0.77
Monitoring of risks enhance performance of mortgage financing of the project	4.70	0.67
Effective planning of risks and allocation of resource for effective management of risks	4.78	0.74

KenCom SACCO Runda Home Project Performance

The respondents were requested to indicate whether KenCom SACCO Runda Home Project met the quality as expects. From the findings presented in Figure 2, majority 77% of the respondents indicated that KenCom SACCO Runda Home Project met the

quality as expects while 23% of the respondents indicated that KenCom SACCO Runda Home Project did not meet the quality as expects. The findings concurred with Mohamad, Mahdi and Mina (2014) who revealed that performance of Maskan Meh construction project.

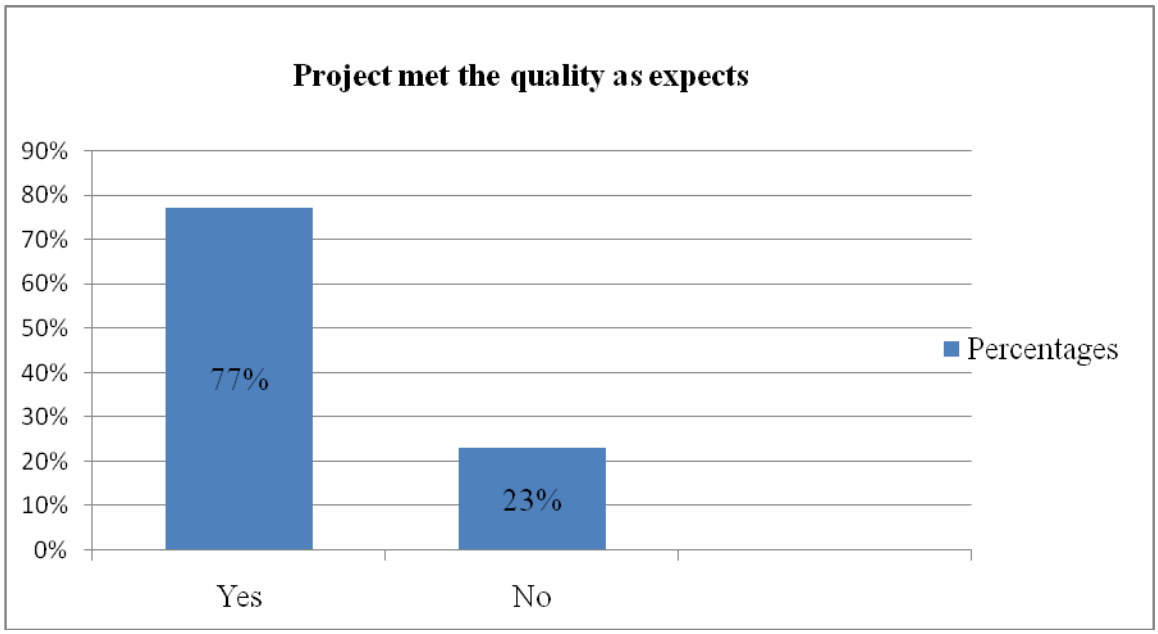


Figure 2: KenCom SACCO Runda Home Project met the quality as expects

Mortgage Risk Factor impact of KenCom SACCO Runda Home performance

The study sought the extent to which mortgage financing impact of KenCom SACCO Runda Home performance. From the findings, majority of the respondents indicated that provision of quality of housing, efficiency in service delivery and completion in time of KenCom SACCO Runda home performance to a very great extent as indicated by mean of 4.72, 4.67 and 4.58 with standard deviation of 0.65, 0.60 and 0.55. Most of the respondents indicated that effectiveness in task execution and increase rate client satisfaction influence performance of KenCom SACCO Runda Home project to a great extent as indicated by mean of 4.45 and 4.40 with standard deviation of 0.38 and 0.33. The finding agreed with Odame, Key and Stevenson (2006) that real estate risks from land registration and valuation systems in emerging economies between 1998 to 2005 affected quality of house project, size of property and location are critical variables that affect prices of real estate properties in Ghana

Table 5: Mortgage financing impact of KenCom SACCO Runda Home performance

Statement	Mean	Standard deviation
Provision of quality of housing	4.72	0.65
Increase rate client satisfaction	4.40	0.33
Efficiency in service delivery	4.67	0.60
Completion in time	4.58	0.55
Effectiveness in task execution	4.45	0.38

Mortgage financing impact of cost efficiency of KenCom SACCO Runda Home

The respondents were requested to indicate the extent to which mortgage financing impact of cost efficiency of KenCom SACCO Runda Home. From the finding presented in Table 6, majority of the respondents indicated that Mortgage financing influence project experiencing cost overrun and that project attained efficiency to a very great extent as indicated by a mean of 4.52 with a standard deviation of 0.87. The study also found that mortgage financing influence e project completion within project budget, project minimize expenses incurred to a great extent as indicated by a mean of 3.89 and 3.64 with a standard deviation of 0.77 and 0.63 respectively. The study also found that influence effectiveness of task execution project attaining efficiency to a less extent as indicated by a mean of 2.47 and 2.31 with standard deviation of 0.61 and 0.45 respectively.

Table 6: Mortgage financing impact of cost efficiency of KenCom SACCO Runda Home

Statement	Mean	Standard Dev
The project experience cost overrun	4.52	0.87
The project complete within project budget	3.89	0.77
The project minimize expenses incurred	3.64	0.63
The project attained Efficiency	2.31	0.45
Effectiveness in task execution	2.47	0.61

Correlation analysis

The study undertook correlation matrix analysis to examine the association between influences of mortgage financing and performance of Kencom SACCO Runda Homes Project. The correlation factor ranged from $-1 \leq 0 \geq 1$. The acceptance confidence level was 95% or significance level of 0.05. The study conducted a Pearson Moment Correlation analysis which is represented by r. The strength of association between mortgage risk factors and the performance of Kencom SACCO project was strong and positive (r=-0.672). The correlation was statistically significant and negative P=0.01<0.05 at 95% confidence level. The findings agreed with Wairimu (2010), who established the effects of mortgage financing on performance of the firms by establish the relationship between influencing factors of mortgage financing and performance of mortgage institutions in Kenya. The results indicate that there exists a positive correlation between mortgage firms performance with factors influencing mortgage financing.

Table 7: Correlation Matrix Analysis on influences of mortgage financing and performance of Kencom SACCO Runda Homes Project

Influences of mortgage financing;		Project Performance
Mortgage Risk Factors	Pearson Correlation	-0.672(*)
	Sig. (2-tailed)	.001
	N	96

* Correlation is significant at the 0.05 level (2-tailed).

Regression Analysis

Result in Table 4.20 indicated that a variation of R^2 =0.419 in dependent variable can be attributed to changes in independent variable as a 41.9% change in the Kencom SACCO Runda Home Project Performance attributed to changes in the mortgage cost of funds, mortgage pricing, mortgage risk factors and mortgage finance disbursement. Result in Table 4.21 indicated that the Total variance (55.058) was the difference into the variance which can be explained by the independent variables (Model) and the variance which was not explained by the independent variables (Error). The study established that there existed a significant goodness of fit of the model $Y = \beta_0 + \beta_1 X_1$. Based on the findings, in Table 4.21 the results indicate the F_{Cal} =12.675> F_{Cri} = 4.123 at confidence level 95 % and sig is 0.000<0.05.This implies that there was a goodness of fit of the model fitted for this study: Y = 2.450+0.561X+e

Coefficient Analysis

From regression results the 2.450 represented the constant which predicted value of Project Performance (Kencom SACCO Runda Homes Project) when all influences of mortgage financing were constant at zero (0). This implied that Kencom SACCO Runda Homes Project Performance would be at 2.450 holding mortgage risk factors at zero (0). From the regression findings, the study revealed that there existed a significant positive relationship between mortgage risk factors and on Kencom SACCO Runda Homes Project Performance as indicated by.561, $p = 0.000<0.05$, t=-4.124. The implication is that an increase in mortgage risks would lead to decrease in project performance by β_3= -.561.

Table 8: Coefficient Analysis

Coefficients[a] Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.450	.972		2.522	.015
	Mortgage Risk Factors	-.561	.136	.534	4.124	.002

a. Predictors: (Constant), mortgage costing, mortgage pricing, mortgage risk factors and mortgage finance disbursement

b. Project Performance (Kencom SACCO Runda Homes Project)

The study revealed that management of KenCom SACCO Runda Home project institute risk management programmes due to various risks such as interest risks which influence mortgage financing affecting KenCom SACCO Runda Home project performance. The study established that management engages in risk identification, effective planning of risks and allocation of resource for effective management of risks and monitoring of risks enhance performance of mortgage financing of the project to a very great extent. The economic performance influence impact of inflation facing the project and capacity to repay mortgage loan by management of KenCom SACCO Runda Home project to a very great extent.

Conclusion

The study concluded that mortgage risk factors influence KenCom SACCO Runda Home project performance to a great extent. The study concluded that interest risks and inflation risk which influence mortgage financing affecting KenCom SACCO Runda Home project performance. The economic performance influence impact of inflation facing the project and capacity to repay mortgage loan by management of KenCom SACCO Runda Home project to a very great extent. The study observed risk identification, effective planning of risks and allocation of resource for effective management of risks and monitoring of risks enhance performance of mortgage financing of the project to a very great extent.

Recommendations

The study concluded that mortgage risk factors influence KenCom SACCO Runda Home project performance to a great extent. The study recommends that interest risks and inflation risk should be well manage to influence mortgage financing effectiveness and achieve KenCom SACCO Runda Home project performance. The economic performance influence impact of inflation facing the project and capacity to repay mortgage loan by management of KenCom SACCO Runda Home project to a very great extent. The study observed risk identification, effective planning of risks and allocation of resource for effective management of risks and monitoring of risks enhance performance of mortgage financing of the project to a very great extent.

The study recommend that mortgage disbursement should be adequate, mortgage fund disbursement should be done on an efficient schedule and timely to achieve performance of housing projects in Kenya. Disbursement of adequate mortgage fund for the housing project would led to efficient financing of project activities and completion of project within time and achieving quality housing that influence customer satisfaction.

REFERENCE

Alder, G. & Mutero, J. (2007). Housing Micro-finance in Kenya, *background paper for meeting of the Rockefeller* Foundation Global Urban Summit.

Arimah, B. C. (2000). Housing Sector Performance in Global Perspective: A cross-city investigation. *Urban Studies*, 37(13), 2551 – 2579.

Asabere, P.K., Huffman, F.E & Mehdian, S. (2001), The price effects of cash versus mortgage transactions, *The Areuea Journal*, 20 (2), pp.141-50.

Asare, E.& Whitehead. C. (2006). Formal Mortgage Markets in Kenya: Nature and implications. *RICS Research Paper Series*. 6, (13).

Avery, R. B., K. P. Brevoort, & Canner, G. B. (2006) Higher-priced home lending and the 2005 HMDA data, *Federal Reserve Bulletin*.

Buckley, R. & Kalarickal. J. (2005). Housing Policy in Developing Countries: Conjectures and refutations. *The World Bank Research Observer*, 20 (2), Fall.

Calomiris. C.W. (2011). *Emerging Financial Markets*, New. York: McGraw Hill. Augusto de la Torre and Sergio L. Schmukler .

CBK, (2011). Mortgage Finance in Kenya: *A Baseline Survey*

Chijoriga, M. (2000). The Performance and Sustainability of Micro-financing Institutions in Tanzania. *Journal of financing*. 16/2, 275 – 301.

Chinloy P. (2005). Privatized default risk and real estate recessions. Cooper, D. R. & Schindler P. S. (2008). *International Edition: Business Research Methods*. (8th ed.); New Delhi; MacGraw-Hill.

Daphnis, F.& Ferguson, B. (2004). *Housing Microfinance*: A guide to practice. Kumarin Press, Bloomfield, US.

Dolde, M.J. (2006), Sources of funds for mortgage finance, *Journal of Housing Research*, 1 (1), pp.139-61.

Edmister, R.O., Hatfield, G.B. (2004), The significance of portfolio lenders to real estate brokers, *The Journal of Real Estate Research*, 10 (1), pp.57-67

Ferguson, B. (2013). Housing Microfinance – A key to improving habitat and the sustainability of microfinance institutions". *Small Enterprise Development*. 14(1), 21 – 31.

Government of Kenya (2014). Economic Survey 2014

Green, R. K. & Wachter, S.M. (2005), The American Mortgage in Historical and International Context, *Journal of Economic Perspectives*, 19, pp. 93-114

Green, R. K., & S. M. Wachter, (2005), "The American mortgage in historical and international context, *Journal of Economic Perspectives*, 19 93-114.

Gulyani, S. (2006). Inside Informality: Poverty, Jobs, Housing and Services in Nairobi's Informal settlements. *Repor*t No. 36347-KE. The World Bank.

Ho, H. (2004). Financial Firm Production of Monetary Services: *A Generalized Symmetric Barnett Variable Profit Function Approach.*

Kluger, B.D., Miller, N.G. (2010), Measuring residential real estate liquidity, The *AREUEA Journal*, 18 (2), pp.145-59

Kothari, C. (2004), *Research Methodology: Methods and Techniques*, New Delhi: New Age International Publishers.

Lai, Y., Xu, H. & Jia, J. (2009). Study on Measuring Methods of Real Estate Speculative Bubble, *Journal of Service Science and Management*, 2 , 43 – 46.

Laquindanum, L. (2010). Asset Price Bubbles and Challenges to Central Banks: The Case of the Philippines: Malaysia, South East Asian Central Banks, Research and Training Centre.

Lieser, K. & Groh, A. (2011) The Determinants of International Commercial Real Estate Investments, ERES Conference, Paper and IESE Working Paper . 868.

.

Ma, C.K. (2003), The integration of mortgage markets and capital markets, The *AREUEA Journal*, 21 (4), pp.511-38

Macharia, L., Stock, N. & Mbai, R. (2012) Is a Property Bubble Imminent in Kenya? *Daily Nation*, January 2012.

MacOloo, G. (1994) The Changing Nature of Financing Low Income Urban Housing Development in Kenya, *Housing Studies*, 9, 189 – 281.

Murugu A.N (2003), The perceived quality of service in the mortgage sector: *The case of CFC Stanbic*

Mutero, J. (2007). Housing Micro-finance in Kenya, background paper for meeting of the *Rockefeller Foundation Global Urban Summit*

Mutero, J. (2007), Access to Housing Finance in Africa*: Exploring the Issues*: Kenya, Finmark Trust, December.

Nabutola, W. (2004) Affordable Housing – Some Experiences from Kenya. Working Paper, 12, 1 - 17.

National Housing Authority of Zambia (NHAZ). (2002). UN-Habitat Financing Adequate Shelter for All: Addressing the housing finance problem in developing countries. *UN-Habitat*, Nairobi, 99 – 106.

Ngechu, M. (2006), *Understanding the Research Process and Method*,University of Nairobi. Starbright Services Ltd .

Ngugi, P. & Njori, K. (2013) Factors Affecting Access to Mortgage Finance in Nairobi, Kenya. *International Journal of Economics and Finance*, 5, 1 - 23.

Okwir, N. (2002). Lessons Learnt so far from Housing Finance Operations Experience in Kenya: UN Habitat Financing Adequate Shelter for All: *Addressing the housing finance problem in developing countries*, 93 – 98.

The World Bank. (2000). Can Africa Claim the 21st Century? Washington, DC.

The World Bank. (2004). Zambia: An Assessment of the Investment Climate.

Thomson, J. & Buckle, M. (2005). *The UK Financial System*: Theory and Practice 4th Edition, Manchester and New York: Manchester University Press.

Tsatsaronis, K. & Zhu, H. (2004). What Drives Price Dynamics: Cross Country Evidence. *BIS Quarterly Review*, 120, 65 – 78.

Tse, R.Y.C. (2002), Mortgage default risk and lending policy, a study of the mortgage lending in Hong Kong, *Australian Land Economics Review*, 2 (2), pp.12-17.

Turkmen, Y. & Demirel, E. (2012). Economic Factors Affecting Financial Ratios: Real Estate Investments Trusts, Case on ISE, *European Journal of Scientific Research*, 69(1), 42– 51.

United Nations Human Settlement Programme (UN-Habitat). (2002). Financing Adequate Shelter for All: Addressing the housing finance problem in developing countries.

United Nations Human Settlement Programme (UN-Habitat). (2005). Financing Urban Shelter: Global report on human settlements.

Walley, S. (2011). Developing Kenya's Mortgage *Market, World Bank Report* No. 63391

Zhou, P. X., Zhang, G. M., & Wang, J. (2007). Understanding the Key Risks in Construction Projects in China. *International Journal of Project Management, 25*, 601-614.