THE RELATIONSHIP BETWEEN LEVERAGE RISK AND PERFORMANCE OF SELECTED REAL ESTATE INVESTMENTS IN MERU COUNTY- KENYA

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ABSTRACT

Purpose: The purpose of this study was to investigate the Influence of leverage risk on performance of selected real estates in Meru County Kenya.

Methodology: This study employed a descriptive research design. The target population comprised of 390 real estate owners and the sample size was 197 respondents. Stratified random sampling and purposive sampling procedures were used to select the sample size from the target population. Data was analyzed by use of SPSS version 23. Descriptive statistics and inferential statistics such as Regression, and Analysis of variance (ANOVA) were used to present the results in tables and figures.

Results: This study revealed statistically significant relationships between leverage risk and performance of real estate investments. This study established that Leverage risk had a statistically significant influence on real estate investment performance ($r=.686$, $p<0.01$), ($f=12.29$, $p<0.01$). However, Real estate investments was not affected by market risk since it had the least influence on its performance.

Unique contribution to theory, policy and practice: The study added value to Investors on necessity to evaluate leverage risk, as well as maintain a well-balanced capital structure when making real estate investment decisions. There is dire need for central bank of Kenya to amend lending rates specifically on mortgages. The study informed policy decision to the ministry of finance & central bank of Kenya on implementing fiscal and monetary policies that create an enabling environment. A further study on determinants of leverage in real estate investments need to be done.

Key words: *Financial, investments, leverage, risk, real estates, performance*

1.0 INTRODUCTION

Globally, real estate is a booming sector attracting many investors (Ping & Jalil, 2016). Real estate contributes close to 15% of Kenya's GDP (Kibunyi et al., 2017). It contributes to job opportunities enabling development goals. Real estate includes; land and any property above it, office spaces, residential houses, apartments, supermarkets (Nguyen, 2019). Five years ago real estate in Kenya used to perform very well outperforming other

asset classes (Nasuha, 2019). Currently low supply and oversupply in some areas and price fluctuations indicates financial risks that affect real estate performance (Mangongo, 2019). This study was about investigating the Influence of leverage risk on performance of selected real estates in Meru County Kenya.

Leverage refers to the use of debt (borrowed funds) to amplify returns from an investment or project. Investors use leverage to multiply their buying power in the market (Adesina et al., 2015a). Leverage is associated with investment risk, interest rate risk, tax risk, emotional risk, and cash flow risk. Investment Risk is the risk that the use of leverage leads to a poor financial outcome (Patel & Olsen, 2018). Interest rate risk or risk related to the fluctuation of interest loan rates, particularly in the area of real estate development, in which developers have to loan large amounts of capital from banks or financial institutions. On the other hand, unsystematic or specific risks involve the following: Business risk or risk associated with a company's business operations (Patel & Olsen, 2018). The factors that influence risk are to do with the size of the company, product mix, competition, and the general orientation of the management team in charge (Liu et al., 2021.).

Kenya has experienced a big boom in the real estate sector in the recent past to be ranked the fourth highest contributor to the economy (Kenya National Bureau of Statistics, KNBS, 2013). This is a direct response to increased demand. However, the performance of the real estate investments in Kenya is not easily predictable due to the risk and uncertainty of returns (Kamweru & Ngui, 2017). Moreover, the good performance of the real estate investment can attract more investors thus causing a paradigm shift in the industry.

In Nairobi county alone, constructions accounted for more than 76.2 billion of expenditure in 2016, a 7.5% increase compared to 2015 (Juma, 2017). The increase in demand for residential and business premises could be the main driver of increased real estate developments. Meru County has of late experienced tremendous increase in new real estate's development in some locations (Gatauwa & Murungi, 2020). However, most reports reviewed fail to show any evidence of performance of real estate in Meru County. Parameters such as; Income generation, and Revenue growth are suggested to indicate real estate performance (Asete, 2018).

1.2 Statement of the problem

Globally, Real estate sector is expected to perform very highly, but it's characterized by risk such as those emanating from leverage that affect financial performance (Oundo, 2020). High defaults risk, undersupply and over supply, unpredictable cash flow are some of the factors predicted to cause the problem (Survey of banks, 2015 to 2019). House price fluctuations have led to unpredictability of financial performance of real estates in Kenya (Nyambane, 2019).The leverage risk, are hypothesized to affect real estate's financial performance.

1.3 Purpose of the study

To analyze the relationship between financial Risk and performance of selected real estate Investments in Meru County.

1.4 Hypothesis of the study

H_{O4}: Leverage risk has no statistical significant relationship with the financial performance of real estate investments in Meru County.

2.0 LITERATURE REVIEW

2.1 Theoretical review

This study was guided by the Modigliani & Miller MM theory which proposes that "The market value of a firm is constant regardless of the amount of leverage a firm uses to finance its assets." (Feng et al., 2007).

Modigiliani and miller further stated that: "The expected return on a firm's equity is an increasing function of the firm's leverage."(Feng & Guo, 2015). Therefore managers cannot alter the market value of the investment simply by changing their leverage. This is referred to as capital structure irrelevance theorem. Their second proposition indicated that leverage significantly affects performance. MM theory encourages use of leverage. However, too much leverage can increase firms' financial risk due to bankruptcy. This is in turn likely to affect the real estate investment performance. The theory underpins the leverage risk, and interest rate risk, which was the main hypothesis of this study. This theory could also be biased to securities such as stocks and bond markets since most literature that deals with real estate performance in the stock exchange employed MM theory. However, this theory does not show the effect that taxes and fluctuations in the interest rates have on investor's performance due to economic recessions caused by pandemic risks such as covid 19.

2.2 Empirical review

MM theory finds that the real estate Investors must come up with the right mix of debt and equity accounting for the risk and the benefits of the investment (Nguyen et al., 2019). Therefore, good financial planning is key to avoid reactive policies that may render a firm bankrupt. Studies agree that leverage should be planned in a way that is flexible to risk (Daryanto et al., 2018). The study by, He (2016), on the effect of leverage on corporate performance on 1200 listed companies in China, Germany, and Sweden found that in china leverage has negative effects on firm performance. Whereas he observed that on the two, other countries that leverage had a positive relationship with firm performance before the 2008 financial crisis.

In Malaysia, Nasuha et al., (2018) studied 5 real estate investment companies and found a negative relationship between high debt and the performance of real estate. They added that, it is wise for a firm to determine a manageable level of debt while maximizing performance and make sound financial risk management to prevent insolvency. Another study by (Wong & Reddy, 2018) examined the sensitivity of performance to changes in capital structure among real estate investment trusts (A-REITs) in Australia. Their study employed the capital asset pricing model in Merton (1973). Their study found that high debt funds show greater sensitivity to adverse movements in long-term interest rates compared to low debt funds. This suggests that gearing levels play a significant role in the returns generating process (Wong & Reddy, 2018). They advised the investment managers to reduce their exposure to leverage risk by investing in less leveraged firms. Priya (2019) explored the effects of leverage on the performance of Sri-Lankan companies and found a positive relationship.

A few studies in Kenya have explored liquidity risk as a determinant of financial performance. According to Mang'ong'o et al., (2018) capital is a firm-specific variable that affects Performance. Capital has been defined as funds available for investments in a firm that also act as a cushion in case of a crisis. Capital adequacy ratio (CAR) as observed earlier is used to measure the level of capital available to a firm and is used to evaluate the firm's stability in case of a crisis. There is lack of adequate data regarding relationship between leverage risk and financial performance.

3.0 MATERIALS AND METHODS

This study was a descriptive research design as it described the real estate performance phenomenon, as it currently is (Mugenda and Mugenda, 2009). A 5 Likert scale questionnaire was used to collect the data. The target population was 390 commercial and Residential real estate properties in Meru County, (Meru County, 2020). The target population was heterogeneous consisting of commercial and residential property. The sample size of this study was 197 derived using Yamane's formula. The sample size adopted was 50% of the target population (Mugenda and Mugenda 2009). Stratified random sampling technique was used to divide the population into small regional subgroups from which the samples were selected purposively (Gatauwa and Murungi, 2019).

Table 1: Sampling and sample size

Section of the Munisparity	Total number Households	Target population	Sample size 50%
Kaaga & Runogone, Gakurine	5,824	144	72
Meru township	3840	95	48
Kathita, Ntakira	1043	25	13
Gakoromone & Kooje	3654	90	45
Mpuri	1483	37	19
TOTAL	**15,844**	**390**	**197**

Source: (Meru County Statistics & Gatauwa, 2020).

3.1 Data analysis

The collected data was entered, coded, cleaned, and analyzed through statistical software (IBM SPSS Statistics 23). The output was presented by the use of inferential and descriptive statistics (Sullivan, 2015).

3.2 Ethical consideration

The research permit was sought from director postgraduate studies of the Kenya Methodist University. The research was approved by National Commission for Science Technology and Innovation (NACOSTI). Informed consent and voluntary participation was observed while participants were assured of privacy, and Security.

4.0 RESULTS AND DISCUSSION

This study response rate was 164 out of 197 which 83.25% was. Fincham, (2008) recommends a response rate of atleast 60% as sufficient for a descriptive study. The Likert scale consisted of 42 items and yielded Cronbach's alpha (a = .904). Therefore the instruments was found reliable for this study.

4.1 Classification of the real estate

The study was carried out on selected real estates located in Meru County at Munisparity, Kaaga, Runogone, Gakurine & Kithoka, Kathita, Ntakira Gakoromone Kooje and Mpuri areas. This study found out that commercial real estate 98(59.8%) were in higher frequency than the residential real estate 49(29.9%) in the area of the study. However, a few investors 17(10.4%) in this study had developed their properties both for commercial and residential purposes. The qualitative data from the respondents revealed that commercial real estate's had higher prices than that of commercial real estates. However, the demand for residential real estate was higher than that of commercial real estate, but respondents did not show which type of real estate classification is preferable for investment in Meru County.

Table 2: Classification of real estate's studied

Classification of real estate		Frequency	Percent	Cumulative Percent
Valid	residential real estate	49	29.9	29.9
	commercial real estate	98	59.8	89.6
	both residential & commercial	17	10.4	100.0
	Total	164	100.0	

Source: (Author 2021)

4.2 Descriptive analysis of leverage risk

The real estate owners, agents and managers were requested to respond to different statement posed to them to determine their level of agreement. The rating scale was 5; Agree represented by 4; Neutral represented by 3; Disagree represented by 2; Strongly Disagree represented by 1, on the level of influence. Specifically, this study objective was to establish whether the relationship between leverage risk and financial performance was statistically significant. According to Table 3 below, Majority of the respondents 66(40.2%) strongly agreed that they had the right mix and composition of capital structure, followed by 47(40.2%). This implies that the investors and real estate managers strives to ensure that they are not over leveraged. Following the statement, the company asset that is supported by external financing (short-term and long-term debt) is very high, majority of the respondents 70(42.7%) strongly agreed while 65(39.6%) agreed. It implies that majority of real estate investors relies on external financing including short- term and long-term loans.

Further, this study revealed that long-term debts affect performance of real estate investment. Majority of the respondents 49(29.9%) strongly agreed while 28(17.1%) agreed. This implies that use of long-term debts can either improve performance in the short run or worsen performance depending on prudential financial measures taken up by a firm.

Additionally, this study explored whether bank cost and interest rate affected the real estate performance. This study found out that high interest rate and other charges on loans can increase leverage risk and thus affecting performance. Majority of the respondents 83(50.6%) strongly agreed while 38(23.2%) agreed. The study found out that most investors lacked retained earnings that can be used to absorb economic shocks for example during a crisis. Majority of the respondents 50(30.5%), strongly disagreed that they have sufficient retained earnings to absorb shocks in case of an economic downturn while 21(12.8%) disagreed with the statement. This implies that resources could be insufficient perhaps explained by the level of leverage the firm has. It means that much of the income could be committed to loan repayment thus leaving the firm with little funds for saving and investments. This study revealed that leverage risk affect performance to a very large extent.

Table 3: Descriptive analysis of leverage risk

Leverage risk Statements	Strongly agree	agree	Neutral	disagree	strongly disagree
I have the right mix and composition of capital structure.	66(40.2%)	47(28.7%)	23(14%)	17(10.4%)	11(6.7%)
Company asset that is supported by external financing (short-term and long-term debt) is very high. (debt ratio)	70(42.7%)	65(39.6%)	21(12.8%)	7(4.3%)	1(0.6)
We rely on debt to finance the investment activities	44(26.8%)	76(46.3%)	21(12.8%)	14(8.5%)	9(5.5%)
Short-term debt negatively affects the financial performance of my investment always.	77(47%)	26(15.9%)	30(18.3%)	18(11%)	13(7.9%)
Long-term debts positively affect financial performance.	49(29.9%)	28(17.1%)	43(26.2%)	6(3.7%)	38(23.2%)
Bank cost and interest on loans have negatively affected the performance of my business investments.	83(50.6%)	38(23.2%)	7(4.3%)	23(14%)	13(7.9%)
We have sufficient retained earnings to absorb shocks in case of an economic downturn	46(28%)	26(15.9%)	21(12.8%)	21(12.8%)	50(30.5%)

Source: (Mburugu, 2021)

4.3 Hypothesis testing: Leverage risk and real estate performance

The study found out that a statistically significant relationship existed between leverage risk and real estate performance (r=.686, p<0.01), (f=12.29, p<0.01). This implies that 68.6% of the changes in real estate performance are explained by the leverage model on table 4 and table 5 below. Therefore, this study rejected the hypothesis that Leverage risk has no statistically significant effect on financial performance of real estate investments. The degree to which an investor is financed by debt or equity determines how far the investor can increase physical assets. This study found out that high interest rate and other charges on loans increases leverage risk and this significantly affect performance. This study findings agrees with those of Nasuha et al., (2018), who found existence of significant relationship between high debt and the performance of real estate. Thus it is imperative that real estate firms maintain manageable level of debt while maximizing performance. Adesina et al., (2015b) quoting Bauer (2004), argues that leverage affects Performance negatively. Similarly, the study by Rajkumar (2018) reveals that monetary leverage has a negative correlation with the financial overall performance. The negative relationship between leverage and performance could be explained by reduced cash flows and losses

and bankruptcy that could results as results of high debts levels. Zhou & Tewari, (2019) on the other hand pinpoint the Pecking order theory that proposes that the majority of investors prefer debt to equity.

Table 4: Regression results for leverage risk

Model Summary _LEVERAGE RISK[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.686[a]	.471	.432	.781	.471	12.290	11	152	.000

a. Predictors: leverage risk
b. Dependent Variable: Real_estate_Performance

Table 5: ANOVA for linear relationship between Leverage risk and financial performance

ANOVA FOR LEVERAGE RISK[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	82.468	11	7.497	12.290	.000[b]
	Residual	92.721	152	.610		
	Total	175.189	163			

a. Dependent Variable: Real_estate_Performance
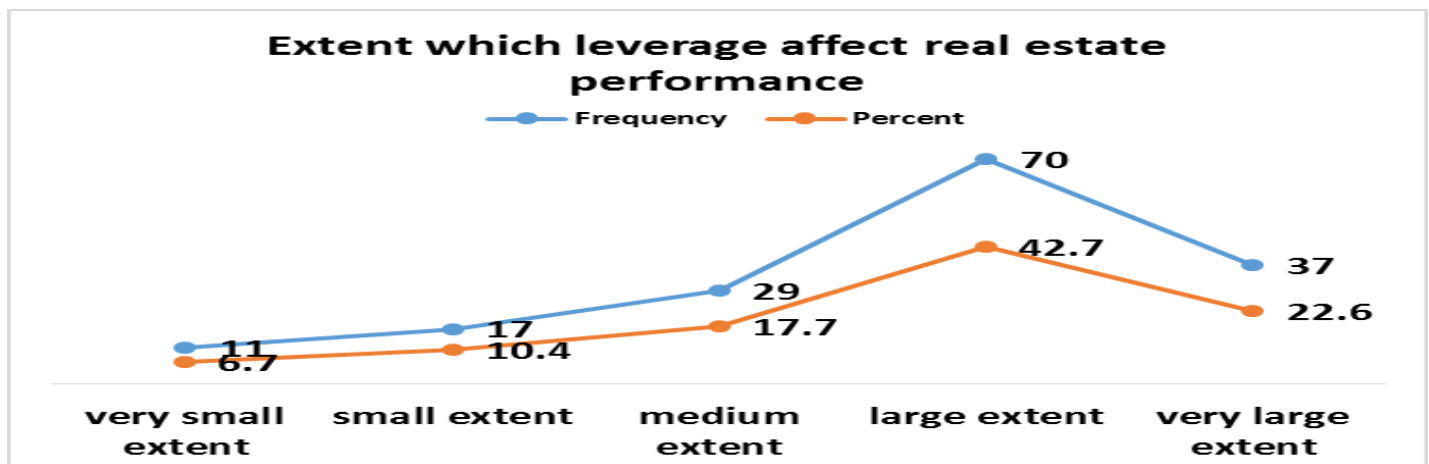
4.4 Hypothesis testing

The study found out that a statistically significant relationship exists between leverage risk and real estate performance (r=.686, p<0.01), (f=12.29, p<0.01). Therefore, this study rejected the hypothesis which stated that leverage risk had no statistically significant relationship with financial performance of real estate investments.
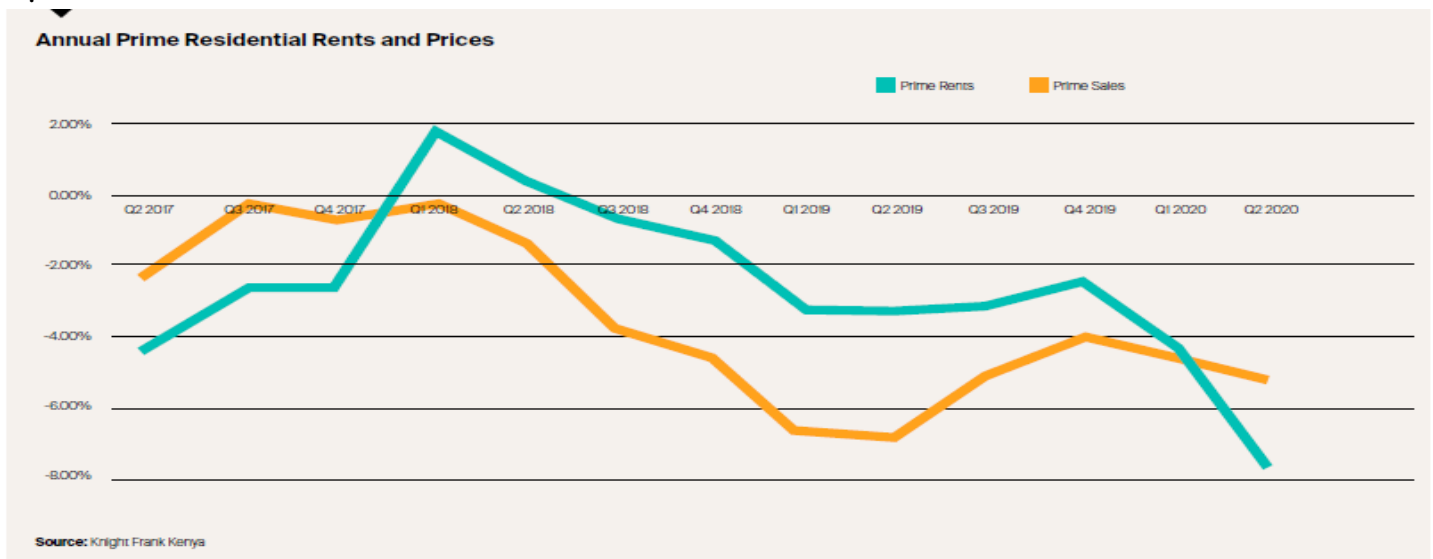
5.0 CONCLUSION

This study concluded leverage risk significantly affect performance of real estate investments. Leverage risk has the most significant influence on real estate investment performance (r=.686, p<0.01), (f=12.29, p<0.01), followed by Liquidity risk (r=0.668, p=<0.01, F=15.59, P<.01) and interest rate risk. Interestingly, market risk has the least influence on real estate performance. Therefore, Investors are able to observe keen interest on leverage risk when making real estate investment decisions.

5.1 Contribution to theory and practice

This study invites diverse investors in real estate in Meru County to seize the investment opportunities available. However, they need to maintain a well-balanced capital structure. This is because sustainable debt levels can increase firm's performance while at the same time high debt levels can ruin the performance and future prospects. While making capital structure decisions the investor needs to have the right ratio of equity to debt. This study recommends that commercial banks, Sacco's and other financial institutions to utilize the opportunity to provide short-term loans to the real estate investors. This is because most mortgage banks sections in commercial banks may fail to offer due to the requirements of their loans. Real estate investors have a high need for liquidity which they cannot easily meet. However, due to liquidity risk Banks should take this opportunity with care securing such loans with the property. This study recommends that central bank of Kenya amend terms for interest rate on real estate investments in order to achieve GDP growth goals since real estate investments create jobs, and improves the gross domestic product of a country. With affordable interest rates and low cost of debt, this can encourage more investors to join the sector leading to growth and development. This study recommends that the ministry of finance Kenya in corroboration with central bank of Kenya to implement fiscal and monetary policies that reduce inflation and other market risk. This is because inflation has a major influence on performance of not only real estate investments but also harms other SME'S. Therefore, there is need for macro-prudential decisions that alters the systematic risk affecting the real estate investors. This study recommends a further study on determinants of liquidity in real estate investment performance. This study recommends a further study be done on the right debt to equity ratio in real estate investments.

APPENDIX

Annual Prime Residential Rents and Prices

Source: Knight Frank Kenya

5.2 Acknowledgment

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