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Influence of Operational Risk Management on Performance of Real Estate Firms in Nairobi County, Kenya

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Abstract
This study examined the influence of influence of operational risk management on performance of real estate firms in Nairobi County. The study was anchored on agency theory, stakeholder theory, financial economic theory and new institutional economics theory. A descriptive survey design was adopted by the study. The target population comprised of the 80 licensed firms by the Nairobi County Government which had been in business for over three years with focus on real estate agent officers. From the population of 80 real estate firms, samples of 66 firms were selected. Stratified random sampling technique was used by the study to arrive at the sample size. Questionnaire was used as data collection instrument. Data collected were quantitative in nature. Quantitative data were analyzed by both descriptive and inferential statistics. Statistical Package for the Social Sciences (SPSS) version 26 helped the researcher to code and analyze the data. Further, correlation analysis was conducted to examine whether there is an association between operational risk management and performance of real estate firms. The results were summarized in frequencies and percentages. The study findings revealed a positive relationship between operational risk management and performance of real estate firms (β = .122, p = .000<.05). The study recommended that: sound mechanisms for real estate firms to be put in place to increase the performance, the firms to aim at reducing the possibility of deferred maintenance, the firms to reduce risk of rising expenses to keep the real estate operational, reduce the possibility that the installed technology may negatively influence the core business process and ensure that they reduce health and safety related incident performance risk. In addition, firm managers to assign tasks associated with marketing to third parties, such as brokerage organizations to reduce cost.

Keywords: *Operational risk management, real estate firms performance, real estate risk management, real estate firms*

1. Introduction

Real estate development is well-thought-out to be the most risky corporate activities in the business world today. Since the making of real estate items is in several circumstances speculative, by which an expectation of an unidentified future demand, with risks and a lot of uncertainty are vital components of any real estate progression. The growing profession is to be considered as vastly recurring and unpredictable. According to Ali (2016), the real estate expansion is shrewdly taking a risk. Real estate advancement is liable to various hazardous

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factors. Effective advancement, inter alia, is subject to introducing a satisfactory timely and at the correct price item to the ready market in real estate (Armeanu & Bãlu, 2017). The expansion income relies on accomplishing everything whereas balancing expenses against price of the real estate items. Growth is static equally in time and in the outer space and includes somewhat huge sums of capital (Frank, 2014).

Real estate advancement is an intricate and multi-disciplinary assignment as it characteristically stresses on a devoted group of individuals with diverse ranges of abilities and proficiency, and the synchronization of an extensive variety of interconnected events. Local authorities, lawful necessities, occupants and neighbors are to be contented, strategy groups and contractual workers to be overseen, time gauges, expenses and emergencies to be supervised and creditors and additional shareholders - particularly potential occupiers and venture capitalists - to be satisfied (Odipo, 2016). Real estate creators are frequently cope with substantial variations within their surroundings and fresh encounters compelled by the macroeconomic, societal, urban-planning, political-legal, supervisory, ecological and technological background circumstances. Notwithstanding the great risk aspects, the real estate advancement business lingers behind different ventures in its intricacy and use of risk identification, assessment, moderation and control. Berk (2013) reported that developers were regularly critiqued for not satisfactorily comprehending and scrutinizing risk.

The banking and insurance cover divisions have for a long time established and engaged complicated systems of risk managing approaches and the extent of educational study in these parts is too abundant to break down. Their efficiency is definitely arguable subsequently looking at the worldwide fiscal predicament, even though it's probably attributable to insufficient industrious use of said methods (Glaum, 2017). Agreement as per constitutional requests on risk aspects is also well recognized in the grounds of good quality, surroundings and also safety measures. During development levels or commercial levels which have unnoticed risks or are identified too late can generate predicaments in the long run. Frequently irrevocable destruction has transpired or losses have been suffered by then. As a regulation, marginal possibility for action is left at this late phase and it is normally no longer probable to accomplish the required reversal. Real estate advancement occupation necessitates an unlimited consciousness of risk as well as its control methods (Bhagat & Black, 2012). Not only does it branch from the uncertain landscape of the development procedure and its intricacy but also from the supervisory, capital market and shareholders stresses which demand prodigious mindfulness of risk and risk management.

Regulatory pressure and corporate ascendency provisions are gradually demanding better mindfulness of risk and risk management; It has become a compulsory obligation in a numerous number of countries and no longer voluntary so as to safeguard the establishment's shareholders from the allegations of the establishment's evasion of its responsibilities. The core objective of regulation has been intended for the executive committee, advocating for more control and discipline concerning efficacy in the procedure, dependability of fiscal reporting in addition to obedience of rules and regulations (Hameeda, 2015). The regulatory modification of the banking

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and investment division through the reviewed rules of the Basel Capital Accord has an imperative influence on consciousness of risk and the various risk administration techniques in real estate advancement. According to Muteti (2017), Basel ought to end in better consciousness of risk and its administration in real estate advancement and it ought to provide a benefit to risk administration capable home and property designers who will be able to scrounge at additionally beneficial charges. Capital markets weight notwithstanding the administrative weight, the capital market presently likewise necessitates satisfactory business risk management. On the same note, Butterworth (2001) found out that the organizations which were capable of providing proof of competent risk administration may well have profited from a further advantageous budget of capital. In disparity, developers who can't exhibit orderly opportunities and management of risks, that is a vital constituent of any business regulation contrivance fixated on conception of assessment, and lacking a reward for a high level of assurance and being reprimanded by the so called capital markets (Bhagat and Bolton, 2014).

Shareholders' pressure, likewise, other shareholders of real estate development establishments anticipate an effective distribution and usage of resources. It is harmless assume that organizations that are capable of demonstrating their conscious of their risks and manage threats and openings in an effective and entrepreneurial way, capable to arouse self-assurance amongst their shareholders as well as any additional corporate associates who are willing to ponder an association controlled in a risk-aware style considered credit-worthy. When it comes to sharing risk-specific features to main shareholders, a substantial objective for management is to guarantee them that satisfactory risk management policies have been instigated. Achievement in fullfiling real estate advancement mandate or joining combined endeavor investments will depend, among other things, on indicating that sound suppositions concerning risk aspects have been considered. Devoid of sound risk management, real estate advancement administrations stand a high chance of being reprimanded as responsiveness to risk and risk management enforcement. There has been an extensively engraved conviction that an organized risk management tactic is a vital achievement aspect for real estate development and under dire circumstances be a contributing factor of the final results as either successful or failure. Nonetheless it mostly does not manifest during times of strong economic growth but always evident during economic decay periods (Bhagat & Black, 2014). According to Millington (2013), advancement establishments ought to implement risk declining and risk control procedures.

United States of America dictates commercial asset markets, accounting for roughly one third of world assessment. In contrast, Europe as a continent contributes approximately an equivalent fraction. The over-all value of non-government possessed real estate was roughly $25 trillion in the mid 2000's, as compared to an estimated stock market assessment of roughly $20 trillion at that time (Crouhy, Galai, & Mark, 2016). Approximately 55% of real estate value was in private equity, 19% in private debt, 16% in public debt and 10% in public equity. Although the value of real estate is focused in technologically advanced land, the latter is merely about 6% of the entire land region in the U.S. The prevalent shares of land use are water regions and civic land (approximately 23%), followed by forest land (21%) and then several agrarian uses. These

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statistics have altered only to some extent over the previous two decades. In terms of percentage alteration, on the other hand, technologically advanced land has improved by about one-third during that period. Real estate contends against additional asset classes in the capital markets, and over the past numerous years there has been numerous upsurge in business flows. Overall commercial real estate capacity in the U.S. was approximately $300 billion in 2006, and ought to approach that figure in 2007. In contrast, in 2001 the capacity was $65 billion, and in 2004 $160 billion (Collier, Berry & Burke, 2014).

Real estate stakeholders have continued to be more than careful of the Sub-Saharan area, which is logical to a certain degree, since regular risks are still alleged to be remarkably high. Aversive political and politico-economic influences, exchange risks, illiquidity and the low amount of pellucidity prevalent in these markets in addition to a number of eternal institutional restrictions are only but a few aspects to state that still ruthlessly damage the image of Sub-Saharan Africa as a target for real estate venture (Eichhorn, 2017). Consequently, of the prevalent worldwide fiscal crisis, undoubtedly these image aspects have even grown in prominence. Thus, overseas real estate venture capitalists' insights stay engrossed on the flaws and risks of Sub-Saharan Africa's investment climate as an alternative for the growth potential in Situ. The evident assumption must be made that overseas real estate venture capitalists' image formation of Sub-Saharan Africa is a sheer consequence of restricted coherent conduct. According to fresh empirical data on venture capitalists' topographical selection, Sub-Saharan African real estate markets have so far been of excessively low prominence (Burns & Scapens, 2011). It is on the basis of this challenge that this study intended to examine the influence of operational risk management on performance of real estate firms in Nairobi County, Kenya.

2. Methodology

The research used a cross-sectional survey design. This design was used since the study targeted a vast population and a huge sample and different real estate firms within Nairobi County. Thus the results from the firms were statistically representative (Steenkamp & Baumgartner, 2013).

A target population, according to O.Mugenda and A.Mugenda (2012) is that group to which a researcher desires to take a broad view in a study. In this study, the target population was the 80 real estate firms in Nairobi County as per real estate agents in Kenya (2019) records (unit of analysis) while the target respondents (Unit of observation) were the real estate agent officers of the respective firms.

To arrive at the sample size, the study utilized Yin (2009) cited in Sonia, Mildred and Pryor (2013) formula as indicated in Krejcie (1970) table for determining the sample size. The study used the following formula to arrive at the sample size

$S = X^2NP\ (1-P) \div d^2\ (N-1) + X^2\ P(1-P)$

S = required sample size

X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841)

N = the population size.

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P = the population proportion (assumed to be .50 since this would provide the maximum sample size).
d = the degree of accuracy expressed as a proportion (.05).
$S = X^2NP\ (1-P) \div d^2(N-1) + X^2\ P(1-P)$
$S = 3.841*80*0.5(1-0.5) \div 0.05^2 *(80-1) + 3.841*0.5(1-0.5)$
$S = 3.841*80*0.25/\ 0.05^2*79 + 3.841*0.25$
S = 66
A population size of 80 gives a sample size of 66 real estate firms in Nairobi County. The study employed stratified sampling procedure for the selection of the sample size for every category as shown in Table 1. From every strata a sample size equivalent to 82.5% is applied. The advantage of using this method is that it minimizes errors that occur during sampling therefore increasing the accuracy (Yin, 2000).

Table 1
Sample Size

Firms category	**Respondents**	**Percentage %**	**Sample Size**
Residential real estate	23	82.5	19
Commercial real estate	20	82.5	16
Industrial real estate	19	82.5	16
Firms dealing with Land only	18	82.5	15
Total	**80**		**66**

The study employed a semi-structured questionnaire as a data collection tool. The questionnaire items comprised of both closed ended and open- ended questions. This was deemed to the fact that the tool can collect massive data over a short period of time, and that data was being collected in different firms within Nairobi County.

The completed questionnaires were edited for completeness and consistency. The data were then coded to enable the responses to be grouped into various categories. Quantitative data were analyzed using descriptive statistics summarized in frequencies, percentage, mean and standard deviation and presented in tables and figures. Statistical Package for the Social Sciences version 26 was used to code data and aid statistical analysis. Further, correlation was conducted to examine whether there is any relationship between operational risk management and performance of real estate firms.

3. Results

3.1 Background/Demographic Information

This section covers the demographic information of the respondents that took part in the study. The information covered includes working experience and the level of education.

Regarding the work experience, slightly more than half (55%) of staff indicated commitment in the private domain and which is positive for growing the organization having served the institutions for over 3 years. 45.0% of the respondents had occupied the office for three years and

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below in the institutions they served. Only 11% of them with less than 1 year consisted of newly recruited staff. With reference to the educational background, nearly two thirds (65.3%) of the respondents who took part in the study were undergraduates while slightly more than a third (34.7%) of them had attained master's degree.

3.2 Operational Risk Management

In order to investigate the influence of operational risk management on performance of real estate firms in Nairobi County, the respondents were asked to give their opinion on operational risk management of real estate firms and their distributions are summarized in Table 2.

Table 2
Analysis for Operational Risk Management

		SD	D	N	A	SA	Mean	SD
The firm reduces the possibility of deferred maintenance	F	0	0	0	49	13	4.2097	.41040
	%	0.0	0.0	0.0	79.0	21.0		
The firm reduces risk of rising expenses to keep the real estate operational	F	0	1	2	47	12	4.1290	.52741
	%	0.0	1.6	3.2	75.8	19.4		
The firm reduces the possibility that there will installation technology negatively influencing the core business process	F	0	0	12	42	8	3.9355	.56889
	%	0.0	0.0	19.4	67.7	12.9		
The firm reduces health and safety related incident performance risk	F	0	4	1	44	13	4.0645	.69826
	%	0.0	6.5	1.6	71.0	21.0		
The firm reduces the possibility that a low occupancy rate may cause real estate costs per square feet to rise	F	0	4	10	36	12	3.9032	.78322
	%	0.0	6.5	16.1	58.1	19.4		
	F	0	2	5	44	12	4.048	0.598
Composite score	%	0.0	2.92	8.06	70.32	18.74		

The majority (70.32%) of respondents were on average highly in agreement with regard to how operational risk management influences performance of real estate ($\bar{x}$=4.04838).

With reference to whether the firms had reduced possibility of deferred maintenance, the majority (79.0%) of respondents ($\bar{x}$=4.2097) were highly in agreement.

The majority (75.8%) of respondents were also in agreement that that firm reduces risk of rising expenses to keep the real estate operational ($\bar{x}$=4.1290); that firm reduces health and safety related incident performance risk ($\bar{x}$=4.0645; 71.0%); the firm reduces the possibility that there will installation technology negatively influencing the core business process ($\bar{x}$=3.9355; 67.7%); and that firm reduces the possibility that a low occupancy rate may cause real estate costs per square feet to rise ($\bar{x}$=3.9032; 58.1%).

3.3 Test of Hypothesis

In order to assess the influence of operational risk management on performance of real estate firms, Pearson correlation was computed.

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H_{01}: There is no relationship between operational risk management and performance of real estate firms in Nairobi

Table 3
Pearson Correlation between operational risk management and performance of real estate firms

		P2	ORMM
P2	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	62	
ORMM	Pearson Correlation	.845**	1
	Sig. (2-tailed)	.000	
	N	62	62

Operational risk management was significantly associated with performance of real estate firms with between operational risk management and performance of real estate (β = .122, p = .000<.05). The foregoing findings provide enough evidence to reject the null hypotheses that there is no relationship between operational risk management and performance of real estate firms in Nairobi County (H_{01}). The study therefore concluded that there exists a statistically significant relationship between operational risk management and performance of real estate firms in Nairobi.

4. Discussion

All the measures of operational risk management scored means ranging between 3.9 and 4.2 thus emphasizing the variations in extent to which firms reduces the possibility that a low occupancy rate may cause real estate costs per square feet to rise ($\bar{x}$=3.9032; 58.1%) and whether the firms had reduced possibility of deferred maintenance, a majority of respondents ($\bar{x}$=4.2097; 79.0%) were highly in agreement. These findings imply that real estate firms in Nairobi County, Kenya seek to reduce the possibility that there will be future problems related to installation of technology that can negatively affect business, also the firms seek to reduce health and safety related risks as noted by Hassan and Wanyanga (2010).

It can be deduced from the foregoing finding that majority of firms have reduced risk of rising expenses to keep the real estate operational, this was supported by majority of respondents who affirmed the statement. It can also be deduced that most firms have reduced the risk of rising expenses to keep the real estate operational.

The study also deduces that majority of firms have reduced possibility that there will be installation technology negatively influencing the core business process, as majority of the respondents affirmed the statement. Only a few real estate firms disagreed that the firm had reduced possibility installation of technology which negatively influenced the core business process. The study further concludes that majority of the real estate firms had reduced health and safety related incident performance risk as majorities were highly in agreement of the statement.

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It can also be concluded that majority of the real estate firms had reduced the possibility that a low occupancy rate may cause real estate costs per square feet to rise.

The study findings appear to be in line with Nocco and Stulz (2006) who pointed out that proper risk management is paramount on day to day executions of any real estate industry to be safe from economic risks and liquidation. To ensure that the company is increasing its value by managing risks, Banks (2004) bears witness with the study's findings on ensuring continued profitability of the firm. In a similar study, Sewanyana (2011) conducted on the association amid operational risk and administrative surroundings in land and property corporations, to investigate the association amid administrative surroundings and administrative performance and to find out the association amid operational risk and administrative level of performance in real estate firms located in Uganda. The study obtained secondary data from extant companies' journals council reports and literature. The findings of the study established that there was a substantial and positive association between operational risk management, administrative setting and administrative performance. The regression analysis additionally revealed that administrative setting and operational risk management were significant pointers of organizational performance.

The study also agrees with Christensen (2001) who argued that the continuity, performance and management of business activities in an estate are contained in an operational risk management, this is considered in three levels; the firm, assets and portfolio levels. The risks entailed here are Strategic and business operating risk plus leverage, product design features together with asset correlation and investment concentration. The three level sets can also be used in the forum of Property Investment; these are considered as risk management strategies. Risk management entails a process of evaluation which utilizes the analysis through the comparison and prioritization of the potential risk influences. Additionally, Christensen (2001) noted that the three factors that are required for an action to be outsourced include: specification of the function to enhance comprehension of the function of the requirements by both parties, secondly is the development of measures in a transference manner which evaluates as the requirements are being met, the third one is that the organization ought to comprehend the influence on total performance of a failure to meet.

The study therefore concluded that there exists a statistically significant relationship between operational risk management and performance of real estate firms in Nairobi. This is in agreement with Lyambiko (2015) whose study also revealed that in Tanzania, returns commercial banks' returns were influenced by operational risk management, positively. He further established that various operational efficiency measures instituted in the country by various commercial banks over the years have directly and indirectly affected the financial performance of the banking sector in a number of ways while includes banks profitability. He further confirmed that the effectiveness of the operational risk management efficiency depends on the instruments used in macroeconomic policies and the prevailing economic conditions and the deregulation of the sector which consequently led to a number of improvements.

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5. Conclusion

The study thus concludes that there is a statistical important association between operational risk management and productivity of real estate firms in Nairobi County, Kenya. Most of the firm reduced the possibility of deferred maintenance, reduced possibility that there will installation technology negatively influencing the core business process, reduced health and safety related incident performance risk and lastly reduced the possibility that a low occupancy rate may cause real estate costs per square feet to rise. The results showed the average mean was 4.04 which meant that most of the respondents were in agreement with statements relating to operational risk management.

This research proved that operational risk management influenced performance of real estate firms within Nairobi County in Kenya. The research study therefore recommends that for real estate firms to improve on performance, the firms should aim at reducing the possibility of deferred maintenance, reduce risk of rising expenses to keep the real estate operational, reduce the possibility that there the installed technology will not negatively influence the core business process and ensure that they reduce health and safety related incident performance risk. Firms should ensure the possibility that a low occupancy rate that may cause real estate costs per square feet to rise is reduced.

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