THE INTERNATIONAL JOURNAL OF BUSINESS & MANAGEMENT

Effects of Market Approach to the Valuation on the Financial Performance of Real Estate Investments in the Western Region, Kenya

Tracy Bifwoli Florence
M.Sc. Finance Student, Department of Accounting & Finance, Maseno University, Kenya
Dr. Benjamin O. Ombok
Senior Lecturer, Department of Accounting & Finance, Maseno University, Kenya

Abstract:
The main aim of this study was to examine the effect of the market approach to the valuation on the financial performance of real estate management investments in Western region, Kenya. The study was guided by Market Efficient Theory. The study employed a correlational research design. The target population of the study consisted of 52 registered real estate agents within the western Kenya region. The study adopted a census technique to gather all the required data from the existing population. Primary data were collected through structured questionnaires, and secondary data schedules were used to gather secondary data for analysis. Pretesting of survey instruments was conducted as an effort to ensure that there was both content validity and reliability. Both descriptive and inferential statistics were employed for data analysis. From the study results, market-based explained 57.2% (R2=0.572, p=0.000) of variance in the financial performance of real estate investments. The regression coefficient revealed (β=1.019, P=0.000), implying that a unit increase in the market-based valuation approach would significantly increase the financial performance by 1.019 units. Therefore, the null hypothesis was rejected. The study, therefore, concluded that market-based valuation influences the financial performance of real estate management investments in Western Kenya. The study recommended that evaluators should take caution while employing a market approach as either a primary or secondary approach to valuing a business. One of the notable issues with the market approach is that price may not always be a good indicator of value. Price may be influenced by uneven negotiating skills, the difference in information available, the compulsion to act, payment terms, and financial strengths.

Keywords: Financial performance, real estate investments, market approach to the valuation, valuation approaches, western region

1. Introduction

The advancement of the real estate industry is generally a significant façade in economic growth. Apart from the huge share the real estate industry contains in the various countries' economies, the importance is also towards progressive externalities and spillover effects as well as social and political climate. The real estate sector connotes immobile property, for example, land, or anything else, such as houses, which is forever devoted to it (Moko & Olima, 2014). The individual also procures a range of privileges, including ownership, control, and transmission rights, when a person acquires real estate. Understanding investment in real estate is significant because it typically requires a large investment as well as a long-standing investment. The market in regard to the real estate sector can also be volatile (Mariano, 2011). The understanding is mainly significant if an individual goes yonder from purchasing a home to essentially investing in the real estate sector. In the real estate industry, there are many ways in which an investor can engage (Dubois & Anderson, 2010). Investment usually requires a lump sum commitment now for potential income flow sources and capital appreciation (Panle & Parag, 2011). Put in another way, it is the purchase of an asset by a person or entity, either through its income or capital gains, to earn returns. The preceding underlines the importance of the financial performance of the players in the sector in assessing real estate investment.

The Kenyan real estate sector comprised one of the growing industries over the past decade, fueled by the ever-expanding middle class with greater disposable revenues. Generally, the returns yielded from the sector have certainly overtaken those of parities and government securities. From the survey conducted by Hass Consult with regard to property, it was indicated that there was an increment of prices by 30% in the year 2006 to 2011. The Mortgage Financier Housing Finance, which conceives plans to enlarge its operations in the Eastern African states, indicates that real estate sector expansion in Kenya is favored by one main component, which is the high return at a minimum cost. The sector reports denote that good regulations from the government and appropriate investment vehicles heightened by the availability of capital contain some of the elements that place Kenya forward from the rest of East African nations with

respect to property investment. Besides, Kenya, being stable economically, provides greater returns on investments because of the high demand for houses.

However, the market of houses in Kenya is rapidly cooling amid the falling demand triggered by the constrained credit admission attached to the constant surplus of high-end residential advancements. In the year 2019-quarter three, the sales index of the Hass Composite property indicated that the sales of residential properties declined to 3.4%, with a sharp contrast of a y-o-y increase of 8.1% throughout the same period of the past year, grounded on the report given out by Hass Consult Limited. It was the subsequent and successive quarter of the y-o-y price reduced after declining by 3.2% in quarter two in the year 2019. This sector recorded the greatest progression in terms of non-performing loans (NPLs) past year, as both makers and owners were struggling to repay their loans in accordance with Central Bank of Kenya. Consequently, the cumulative amount of reclaimed houses is now being retailed at reduced prices.

Cytonn Investments (2018) indicated that the financial performance of Kenya's real estate declined to 18.4% in 2017. It has not been resolved whether asset valuation techniques enrich or moderate the amount of returns (the indicator of financial performance) of Kenyan real estate investments. The poor performance of the real estate industry investments contains far-reaching inferences. This is grounded by the point that it is an important industry that contributes big to Kenya's economy. The empirical research conducted in the past has produced mixed and conflicting results as they have failed to cater to the worth mentioning subjects sufficiently. The paucity and flaws of the empirical studies, specifically with respect to asset valuation approaches and Kenyan real estate investment performance, dictated this study.

An empirical investigation conducted by Cytonn Real Estate (2019) indicated that the residential real estate industry in Western part of Kenya offers investors a sum total of 13.3% annually with a revenue of 4.8% and yearly capital appreciation of 8.5 percent. Nevertheless, there are more pretty yields of income which is 9.6% per annum, which is available to advance the various development projects. On the same breadth, the report alludes to various constraints encountered by investing in this sector as low returns on investment, insufficient space for enlargement, poor planning, intolerance, fraud, and political animosity. Despite these challenges, investors continue to venture into this business. Therefore, it is paramount to address the constraints by examining how asset valuation approaches influence real estate investment in Western Kenya region.

Valuation is a critical element in the management of assets in the real estate sector investments as it offers avenues for gauging and appraising facilities whose worth is to be conserved or improved (Conradie & Lamprecht, 2021). Valuation is pivotal for all businesses related to the real estate sector. In its simplest form, it entails the determination of the total amount in which the assets will conduct on a specific date. Real estate investments, in particular, often have finite lives and must be priced accordingly. Many financial assets have infinite lives, such as stocks. At the end of the 'estimation phase', these variations in asset life manifest themselves in the value attributed to these properties. Nevertheless, there exists a broad range of drives on why the valuation of assets is crucial (Kipkurui, 2019). This ranges from the valuations for the purchase of the asset and transfer, tax assessment, inheritance or estate settlement, investment, sale, financing, and expropriation.

1.1. Statement of the Problem

Suitable asset valuation methods are the only avenue to deal with financial performance and management of properties in the real estate sector. However, since the worldwide financial economic crisis which hit the world markets in the years 2007/2008, there have been few empirical investigations with mixed and inconsistent findings on the appropriate use of valuation approaches and methods in market valuations. In addition, limited information has been produced to describe the effect of asset valuation approaches and the financial performance of real estate investments. This has resulted in mixed outcomes in regard to its effect on financial performance. The market approach to valuation in real estate investments has gained much-needed credence. However, empirical studies have continued to report conflicting outcomes regarding financial performance. These conflicting outcomes have emanated from market regulations, macro-economic factors, and the context of the study since a study from emerging economies has continuously posted insignificant effect on performance. Inadequate valuation of assets can cause investors and the country significant difficulties in determining the sector-specific contribution to the GDP, which could range from negative or stagnant cash-flows to inflation-led shocks in the general economy. With a Real Estate value-added contribution of 575.1 Bn. in 2017, 625.9 Bn in 2018, 675.3 Bn in 2019, and 530.4 Bn in 2020 to the GDP, it is evident that the sector is progressively developing despite the operational environment challenges. Further, information with regard to the financial performance of Kenya's real estate sector indicates a slowed downward trend, with 16.2% in 2016, 15.5% in 2017, 10.1% in 2018, and 13.2% in 2019. Among other challenges the sector face is, for example, low returns, poor planning, inadequate space for expansion, political instability, and intolerance. Therefore, on this basis, this research study was undertaken to bridge the knowledge gap by examining the effect of the market approach to the valuation on the financial performance of Kenya's real estate investments in Western region.

2. Literature Review

2.1. Theoretical Literature Review

This study was guided by Market Efficient Theory. The function of market information in pricing financial securities dates to the 19th Century. A number of scholars and academicians have been ascribed to shaping practices regarding the asset valuation and usage of the information. Over one century ago, two particular schools of thought were created (Bodie, 2005). One side is the financial specialists who accept that the information is extraneous in the valuation of prices in securities. This school of thought undertakes that investing prices assume a random walk or a drunkard style of

walk, in which, in each case, it would be hard to project a return on investment from the asset invested. There is a consensus regarding opinions offered on the random walk proposition (Roberts, 1959; Kendall, 1953). This denotes that no individual using the available information can assess the prices of a particular asset, thus making the available information in the market irrelevant. This differs from the decision theory, which proposes that relevant and trustworthy data is necessary for making suitable decisions. Nevertheless, if this is not the case in the process, then a market bias exists, thereby, inconsistencies grounded on this particular school of thought.

On the same breadth, we have market efficiency theorists who are positivists with regard to the information, and they view this as very significant in the evaluation and projection of prices of assets. The Efficiency Market Hypothesis by Fama (1965) shows that it is impossible to depend upon historical data to make superior margins in the market where the investment takes place. Grounded on the EMH, it is then easy to generate enhanced returns by adopting historical data publicly contained and also the one with insider information. Grounded on this school of thought and the postulations of EMH, it is then required that in the deficiency of market bias, those individuals making decisions by employing historical data which is publicly owned as well as the insider data ought to acquire greater returns in investment as compared to the ones who do not. Biases in the market could either apply in the Kenyan real estate market to motivate prices of real estate investment in whichever direction. Therefore, this theory is essential in explaining how real estate investment firms use a market-based approach to valuation to enhance their financial performance.

2.2. Empirical Studies

Tajani, Morano, Salvo, and De Ruggiero (2019) sought to improve the inventive model that can be involved in the market approach techniques for property appraisals. The study adopted a case study research design approach. The model has been applied to two case studies relating to samples of residential properties located in the city of Naples (Southern Italy). The suggested model borrows heavily from the operative logic of goal programming practices to find a resolution for a market charge of the subjected property and the implied costs of the various elements, as they are more suitable both from the empirical and mathematical perspectives. The findings attained outlined the greater estimation performance of the advanced valuation model proficient of overpowering the applicability parameters of the typical market approach procedures as well as offering resolutions that are greatly reliable with the projected rational phenomena. This study focused on market-based valuation approaches models without simulating actual scenarios on real estate investments.

Mai (2014) examined the market method to cost, also called the sales evaluation method. The study adopted a comparative research design. Data were collected using qualitative techniques, specifically interview schedules administered to valuers and appraisers of two real estate firms. The market methodology examines the cost, which is an asset related to the selling price of comparable investments, in safeguarding with the monetary codes of exchange. The basic approach appraised entails the residual cost technique, which assigns the attainment of the price of an enterprise to various components. The two supplementary methods measured are the cost extraction approach that links sales similar in practical terms with the concession of the gathered labor force in place and the direct sale of the gathered labor force by itself. This was a comparative study focusing on comparing two types of market-based valuation approaches. Therefore, the study did not show how the market valuation affected the financial performance of real estate investment. Further, the results of the study were based on qualitative techniques, while the current study focused on quantitative techniques, which allowed the testing of null hypotheses.

Davis, McCluskey, Grissom, and McCord (2012) sought to determine the prospective for the basic market charge and the non-market rate grounded methods to be exploited for residential building tax purposes. The investigation encompassed the analysis of information on both sales of property and the property quality statistics extracted from the UK District Council area. A number of simplified approaches were adopted to generate various tax base situations, and outflowing tariff occurrence was linked with the one in the complex industry-standard market charge method. The study results revealed that the simplified method of forming a property tax base can execute widely in a similar manner to the more composite systems presently accomplished in the advanced markets. Hence, an indication of equifinality exists. The approach here differs from previous work in that it occurs at the actual tax bill level allowing the comparison of value, non-value, and banded approaches. At the same time, the current focused on how market-based approaches affected the financial performance of real estate investment firms. Further, the study limited itself to a residential building, while the current study focused on both the study focused on property tax and the present investigation will examine the financial performance of Kenyan real estate investment.

Ojijo (2019) carried out a study on the appraisal of timber plantations in Kenya, adopting a case study method of Kaptumo, Elburgon, and Sitoi Tea Estate. The study adopted a descriptive research design. Data were collected through interviews and questionnaires in both random and purposive sampling designs to Valuers, farmers, and plantation visitors. The market approach was established to be correct because their results in regard to costs were within the range of 1%-15% standard accuracy. However, they were not reliable because of not capturing the non-timber benefits. In addition, the investigation indicated limitations of timber plantation appraisal to comprise the quantification of indirect benefits, lack of information, and the determination of the interest rate and heterogeneity of timber assets. However, unlike the current study, the study did not indicate how the market valuation approach was achieved.

Gaca (2018) studied price as a quantity of market charge in the real estate sector, management of the real estate, and appraisal. The study adopted a comparative research design by focusing on two sets of undeveloped land intended for residential purposes, for both single (Set No. 1, Subset A) and commercial purposes (Set No. 2, Subset A). The data used for the analysis were obtained directly from the content of notarial deeds collected in the State surveying resources. With due consideration to the appraisal standards applicable in Poland and the resulting European and global appraisal standards, the investigation established that the cost of real estate can be assessed on the grounds of prices meeting conditions which

are termed transaction prices. This was a comparative study focusing on comparing two types of real estate investments, residential and commercial use. Therefore, the findings cannot be generalized in the context of Western Kenya besides being conducted in developed nations. Further, the dimensions only account for singular attributes of the property omitting its respective associations with the degree of the specified prices.

3. Methodology and Results

The present research embraced correlational research designs used to attain the set objectives of the study. Correlation design entails the use of correlational statistical tests to assess the extent of relationships between the variables under investigation (Leedy & Ormrod, 2010). The investigation was surveyed in Western parts of Kenya, specifically targeting real estate firms in the region. The region comprises ten counties: Siaya, Busia, Nyamira, Vihiga, Bungoma, Migori, Kisumu, Homa Bay, Kakamega, and Kisii. The population comprised all the 52 recorded real estate investment firms in Western Kenya from which owners/managers were selected. The distribution of real estate companies and agents is as follows; Kakamega County (5), Bungoma County (3), Kisumu County (28), Busia County (2), Kisii County (11), and Homa Bay County (3). Due to the small size of the population used, the current study employed a census technique where all the units (52 real estate firms) were examined. This confers with Mugenda and Mugenda (2011), who indicated that a population of 1 to 100 taking a 100% sample is deemed the sample size.

The study used two sources: primary and secondary. The study utilized primary data collected using a questionnaire. A five-point Likert-type scale was used for all the constructs with 5-Strongly agree, 4-Agree, 3-Undecided, 2-Disagree, and 1-Strongly disagree. The secondary data were obtained from the records of all the real estate agents and companies within the study area. The secondary data collected was recorded in a data collection sheet and analyzed. The Secondary data were collected between 2016 and 2020. Construct and content validity was evaluated by giving the questionnaire to two professional finance experts in the Department of Accounting and Finance of Maseno University and five officials from five real estate companies and agents in Uasin County during the pilot study. This study tested convergent validity using Average Variance Extracted (AVE). According to Ab Hamid, Sami, and Sidek (2017), the threshold value of AVE should be greater than 0.5 for the constructs to be justifiable. Market validity recorded an AVE of 0.553. This investigation adopted the Cronbach alpha technique to assess the internal consistency of the survey instrument. In this study, 0.7 was used as the threshold. The independent variable recorded Cronbach Alpha of .808.

SPSS software version 26 was used for the statistical analysis of quantitative data. Descriptive statistics were mainly used to show the trend of the data. The researcher used descriptive statistics that include:
- A measure of central tendency,
- Mean, and measure of variability, and
- Standard deviation

The study also used frequencies and percentages. The study used inferential statistics analysis, such as correlation analysis and regression analysis, to test null hypotheses. These statistical tests were at a 5% significance level.

4. Results and Discussions

4.1. Descriptive Analysis

The study analyses the effects of Market Approach to the Valuation on the Financial Performance of Real Estate Investments in the Western Region, Kenya. Respondents were required to state their responses on a 5-point Likert scale where:
- 5-Strongly agree,
- 4-Agree,
- 3-Undecided,
- 2-Disagree, and
- 1-Strongly disagree

Pertinent results are shown in table 1 and table 2.

Market-Based Valuation Approaches	Mean	Std. Deviation
The market approach provides an indication of value by comparing the asset with identical or comparable (that is similar) assets for which price information is available.	4.22	.850
The heterogeneous nature of many assets means that it is often not possible to find market evidence of transactions involving identical assets	4.31	.596
When the comparable market information does not relate to the exact or substantially the same asset, there needs to be a reasonable basis for comparison with and reliance upon comparable assets in the market approach.	4.27	.720
The market approach often uses market multiples derived from a set of comparable. Multiples might be in ranges with a different multiple for each comparable.	4.24	.830
The comparable transaction method can use a variety of different comparable evidence, also known as units of comparison, which form the basis of the comparison.	4.36	.802
The market approach should be used as the primary basis for a valuation	4.24	.802
A professional should make adjustments for any material differences between the comparable transactions and the subject asset.	4.49	.757
As prices in traded markets will generally incorporate credit risk, and incremental credit risk, adjustments may not be required	4.38	.576

Market-Based Valuation Approaches			Mean	Std. Deviation
The value of a business is determined by reference to reasonably comparable guideline companies for which transaction values are known			4.22	.850
Transaction multiples used in this case are the ones implied in the prior transactions involving the subject company itself.			4.31	.596
Average level of Market-based approaches	Mean	Std. Dev.	Minimum	Maximum
	4.3091	0.42614	3.27	5.00

Table 1: Descriptive Statistics on Market-Based Valuation Approaches

Results in table 1 indicated that the respondents agreed that the market approach provides an indication of value by comparing the asset with identical or comparable (that is similar) assets for which price information is available (Mean= 4.22, standard deviation = .850). Also, the respondents agreed that due to the heterogeneous nature of many assets means, it is often not possible to find market evidence of transactions involving identical assets (Mean= 4.31, Standard deviation =.596). Moreover, they also agreed that when the comparable market information does not relate to the exact or substantially the same asset, there needs to be a reasonable basis for comparison with and reliance upon comparable assets in the market approach (Mean =4.27, standard deviation= .720.

The respondents agreed that the market approach often uses market multiples derived from a set of comparable. Multiples might be in ranges with a different multiple for each comparable (Mean=4.24, Standard deviation= .830). Furthermore, the participants strongly agreed that the comparable transaction method can use various comparable evidence, also known as units of comparison, which form the basis of the comparison (Mean=4.36, Standard deviation of .802). On the other hand, the participants strongly agreed that the market approach should be used as the primary basis for a valuation (Mean= 4.24, Standard deviation=.802). According to the study finding, the respondents agreed that a professional should make adjustments for any material differences between the comparable transactions and the subject asset (Mean=4.49, Standard deviation=.757).

However, the respondents agreed that as prices in traded markets will generally incorporate credit risk and incremental credit risk, adjustments may not be required (Mean= 4.38, Standard deviation= .756). The respondents agreed that the value of a business is determined by reference to reasonably comparable guideline companies for which transaction values are known (Mean=4.22, Standard deviation= .850). They also agreed that transaction multiples used in this case are the ones implied in the prior transactions involving the subject company itself (Mean =4.31, Standard deviation =.596).

In the market approach, value is estimated by comparing the subject property to similar properties that have sold (Almabekova et al., 2018). The sales comparison approach often produces the most reliable evidence because sales are based on the actions of buyers and sellers in the marketplace. This approach assumes the typical buyer will compare sales and asking prices to make the best possible purchase (Adetiloye & Eke, 2014). From the findings, the study established that transaction multiples used in the market-based approach are the ones implied in the prior transactions involving the subject company itself. Prices in traded markets will generally incorporate credit risk and incremental credit risk. Adjustments may not be required, and the professional makes adjustments for any material differences between the comparable transactions and the subject asset.

However, the results also confirmed that the market approach should be used as the primary basis for a valuation. Further, when the comparable market information does not relate to the exact or substantially the same asset, there needs to be a reasonable basis for comparison with and reliance upon comparable assets in the market approach. Lastly, the heterogeneous nature of many assets means that it is often not possible to find market evidence of transactions involving identical assets. Like the asset base approach, the market approach is based on the principle of substitution. This principle presumes that a prudent buyer will pay no more for a property than the purchase price of a similar and equally desirable property. The main problem with using market value is that cost equals Market Value only when markets are in equilibrium. Unfortunately, in real estate markets, equilibrium tends to be elusive. Typically, there is an over or under-supply of certain property types, meaning prices will fall below or above the cost to reproduce, which may be affected by the local scarcity of land affecting the land price and cost inflation or deflation in the building cost component. While solutions to this difficulty are available, they involve adjusting the cost estimate to reflect any such disequilibrium.

Financial performance was measured using return on Assets and return on Investments. Secondary data were collected from 2015 to 2019. It is evident that both return on assets and return on investments decreased from 2015 to 2017, then increased from 2017 to 2018, and afterward reduced from 2018 to 2019. The trend is shown in figure 1.
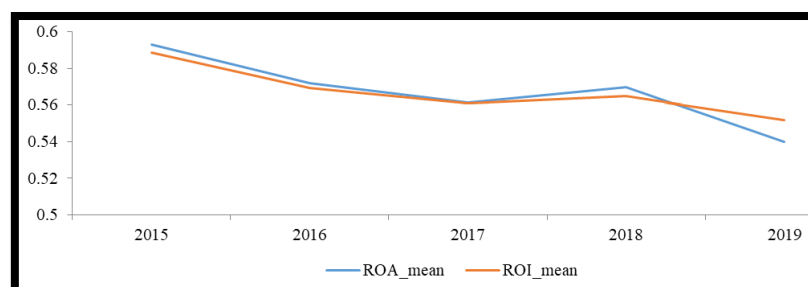

Figure 1: Financial Performance between 2015 and 2019

4.2. Inferential Analysis

4.2.1. Correlation Analysis

This sub-section presents the results and correlation analysis where the relationships between the dependent variable financial performance and the independent variable represented by the accounting information system were presented. The correlation coefficient (r) results are presented, as shown in table 2, using Pearson correlation analysis, which computes the direction (Positive/negative) and the strength (Ranges from -1 to +1) of the relationship between two continuous or ratio/scale variables.

		Market-Based Approaches
Market-based approaches	Pearson Correlation	1
	Sig. (2-tailed)	
	N	45
Return on Assets	Pearson Correlation	.747**
	Sig. (2-tailed)	.000
	N	45
Return on Investment	Pearson Correlation	.756**
	Sig. (2-tailed)	.000
	N	45

Table 2: Correlation Matrix

The findings in table 2 show that there is a positive correlation between market-based approaches and the financial performance of real estate investments in Western Kenya region. The coefficient is 0.747 (p-value < 0.01), which is significant at 99% confidence level for return on assets, and 0.756 (p-value < 0.01), which is significant at 99% confidence level for return on investments. This implies that an increase in market-based approaches would make the performance of financial performance of real estate investments also increase. In this regard, the use of transaction multiples used in a market-based approach, prices in traded markets incorporating credit risk, incremental credit risk, and professional making adjustments for any material differences between the comparable transactions and the subject asset, and financial performance will increase. However, the return on investments will increase more than the return on assets. The results are supported by Almabekova, Kuzmich, and Antosik (2018), who revealed that income-based appraisal is the most preferred approach to real estate valuation due to sustained returns. Similar studies with the same results are Payne and Redman (2003), Leopoldsberger et al. (2011), and Adetiloye and Eke (2014). The results are not supported by other studies, such as Ghosh et al. (2020), on the effect of the market value method on the performance of real estate firms in the EU. Similar results were also reported by Chattopadhyay, Braden, and Patunru (2005), Lee, Yeh, and Yu (2022) as well as Danbolt and Rees (2003).

4.2.1.1. Linear Regression

The objective of the study was to examine the effects of Market Approach on the valuation of the financial performance of real estate investments in the Western region, Kenya. Regression coefficient (B), analysis of variance (ANOVA), and t-test were used to test hypothesis I at 0.05 % significance level, with 95% confidence interval. The study tested the following null hypothesis:
- H_0: There are no effects of Market Approach to the valuation on the financial performance of real estate investments in the Western region, Kenya.
  The results are shown in table 3.

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	.756a	.572	.562	.38043	.572	57.375	1	43	.000
Model			Unstandardized Coefficients		Standardized Coefficients	T		Sig.	
			B	Std. Error	Beta				
1	(Constant)		-.056	.583		-.096		.924	
	Market-based approaches		1.019	.135	.756	7.575		.000	
a. Dependent Variable: Return on Investment									

Table 3: Linear Regression Results

The results in table 3 show an R square of 0.571, postulating that the market approach to the valuation explains 57.1% of the variations in the financial performance of real estate investments in the Western region, Kenya. Further, 42.9% of the variation is unaccounted for and is explained by factors included in the disturbance term. ANOVA results showed that the F-statistical value is significant (F=57.375, *significant* at *p<.001*), thus confirming the fitness of the model.

That is, from the study model, the significant F value shows that the Market Approach to the Valuation is a significant predictor of the financial performance of real estate investments in the Western region, Kenya. Further, the regression coefficient reveals a positive and significant predictive power ($\beta=1.019$, $P=0.000$). This indicates that a unit increase in Market-based approaches will lead to 1.019-unit increase in the financial performance of real estate investments in the Western region with a standard error of 0.135. The relationship can be presented as shown in the model below:

$y = -0.056 + 1.019X_3$

Where:
- Y= Financial Performance
- X_3= Market-based approaches

The results revealed that market-based approaches significantly explained the variance in the financial performance of real estate investment firms in Western Kenya. Hence, market-based approaches significantly predict the financial performance of real estate investment firms in Western Kenya. Correlation and descriptive statistics also produced similar results. In this regard, based on actual leases and historical performance, investors appropriately being compensated for the amount of risk associated with the property and estimated future benefits capitalizing using an appropriate capitalization rate, financial performance will increase. The results are supported by Almabekova, Kuzmich, and Antosik (2018), who revealed that income-based appraisal is the most preferred approach to real estate valuation due to sustained returns. Similar studies with the same results are Payne and Redman (2003), Leopoldsberger et al. (2011), and Adetiloye and Eke (2014) on real estate valuation and optimal pricing techniques. The results are not supported by other studies, for instance, Ghosh et al. (2020), on the effect of the market value method on the performance of real estate firms in the EU. Lee, Yeh, and Yu (2022) revealed that market-based valuation has an insignificant effect on real estate valuations performance. Similar results were also reported by Chattopadhyay, Braden, and Patunru (2005) as well as Danbolt and Rees (2003).

5. Conclusion and Recommendation

The study found that market-based valuation approaches significantly affect financial performance. Financial performance increase among real estate investment was associated with the utilization of market multiples derived from a set of comparable, primary basis for a valuation, professional adjustments for any material differences between the comparable transactions and the subject asset, and incorporation of credit risk, incremental credit risk adjustments in traded markets prices. The study recommended that evaluators should take caution when employing a market approach as either a primary or secondary approach to valuing a business. One of the notable issues with the market approach is that price may not always be a good indicator of value. Price may be influenced by uneven negotiating skills, the difference in information available, the compulsion to act, payment terms, and financial strengths.

6. Acknowledgement

7. References

i. Adetiloye, K. A., & Eke, P. O. (2014). A review of real estate valuation and optimal pricing techniques. *Asian Economic and Financial Review*, *4*(12), 1878-1893.
ii. Alford, A. W. (1992). The effect of the set of comparable firms on the accuracy of the price-earnings valuation method. *Journal of Accounting Research*, *30*(1), 94-108.
iii. Ankobiah, M. (2001). Valuation of port assets: impact on the financial performance of port and the national economy.
iv. Barg, J. A., Drobetz, W., & Momtaz, P. P. (2021). Valuing start-up firms: A reverse-engineering approach for fair-value multiples from venture capital transactions. *Finance Research Letters*, 102008.
v. Bernstrom, S. (2014). *Valuation: the market approach*. John Wiley & Sons.
vi. C., Liang, M., & Petrova, M. T. (2020). The effect of fair value method adoption: evidence from real estate firms in the EU. *The Journal of Real Estate Finance and Economics*, *60*(1), 205-237.
vii. Chadda, N. K., & Vardia, S. (2020). Fair Value Accounting And Valuation Of Non-Financial Assets: A study of impact of IFRS adoption. *Journal of Commerce and Accounting Research*, *9*(4), 63.
viii. Chattopadhyay, S., Braden, J. B., & Patunru, A. (2005). Benefits of hazardous waste cleanup: New evidence from survey-and market-based property value approaches. *Contemporary Economic Policy*, *23*(3), 357-375.
ix. Conradie, S. & Lamprecht, C. (2021). Valuation practices under business rescue circumstances in South Africa, *South African Journal of Economic and Management Sciences 24*(1), a3721. https://doi.org/10.4102/sajems.v24i1.3721
x. Crosby, N., Hutchison, N., Lusht, K., & Yu, S. M. (2018). Valuations and their importance for real estate investments. In *Routledge Companion to Real Estate Investment* (pp. 143-171). Routledge.
xi. Danbolt, J., & Rees, B. (2003). Mark-to-market accounting and valuation: Evidence from UK real estate and investment companies. *Available at SSRN 393460*.

xii. Davis, P., McCluskey, W., Grissom, T. V., & McCord, M. (2012). An empirical analysis of simplified valuation approaches for residential property tax purposes. *Property Management*.

xiii. Demirakos, E. G., Strong, N. C., & Walker, M. (2010). Does valuation model choice affect target price accuracy? *European Accounting Review*, *19*(1), 35-72.

xiv. French, N., & Gabrielli, L. (2018). Pricing to market: Property valuation revisited: The hierarchy of valuation approaches, methods, and models. *Journal of Property Investment & Finance*.

xv. Gaca R., 2018, Price as a Measure of Market Value on the Real Estate Market, Real Estate Management and Valuation, vol. 26, no. 4, pp. 68-77.

xvi. Gitari, B. M. (2011). *Valuation of up-market Residential properties in Nairobi-Kenya* (Doctoral dissertation, University of Nairobi).

xvii. Izuhara, M. (2016). Reconsidering the housing asset-based welfare approach: Reflection from East Asian experiences. *Social Policy and Society*, *15*(2), 177-188.

xviii. Kasanen, E., & Trigeorgis, L. (1994). A market utility approach to investment valuation. *European Journal of Operational Research*, *74*(2), 294-309.

xix. Kipkurui, A. B. E. D. N. E. G. O. (2019). *Effect of selected macro-economic variables on the performance of STANLIB FAHARI real estate investment trust, Kenya* (Doctoral dissertation, Maseno University).

xx. Kok, N., Koponen, E. L., & Martínez-Barbosa, C. A. (2017). Big data in real estate? From manual appraisal to automated valuation. *The Journal of Portfolio Management*, *43*(6), 202-211.

xxi. Kucharska-Stasiak, E., & Źróbek, S. (2015). An attempt to exemplify the economic principles in real property valuation. *Real Estate Management and Valuation*, *23*(3), 5-13.

xxii. Kuria, A. M. (2019). *Behavioral Biases Of Real Estate Investors And Investment Performance In Kenya* (Doctoral dissertation).

xxiii. Lee, C. C., Lee, H. Y., Yeh, W. C., & Yu, Z. (2022). The impacts of task complexity, overconfidence, confirmation bias, customer influence, and anchoring on variations in real estate valuations. *International Journal of Strategic Property Management*.

xxiv. Leopoldsberger, G., Bienert, S., Brunauer, W., Bobsin, K., & Schützenhofer, C. (2011). Energising Property Valuation: Putting a Value on Energy-Efficient Buildings. *Appraisal Journal*, *79*(2).

xxv. Lilford, EV& Minnitt, R. (2005). A comparative study of valuation methodologies for mineral developments. *Journal of the Southern African Institute of Mining and Metallurgy*, *105*(1), 29-41.

xxvi. Lim, S., Kim, S., & Park, H. W. (2015). A Study on a Conceptual Model for Technology Valuation Based on Market Approach. *Journal of Korea Technology Innovation Society*, *18*(1), 204-231.

xxvii. Mai, G. R. (2014). Qualitative analyses in the sales comparison approach revisited. *The Appraisal Journal*, *82*(4), 281.

xxviii. Makarim, R. F., & Noveria, A. (2014). Investment decision based on financial performance analysis and market approach valuation of Indonesian Construction Sector. *Journal of business and management*, *3*(7), 799-812.

xxix. Makathimo, M. K. (2019). Valuation of Un-Registered Community Land in Kenya–Addressing: The Fundamentals. The 19th AfRES Annual Conference.

xxx. Meitner, M. (2006). *The market approach to comparable company valuation* (Vol. 35). Springer Science & Business Media.

xxxi. Muli, J. M. (2020). *Effect of capital gains tax on the performance of real estate businesses in Mavoko municipality, Machakos County* (Doctoral dissertation).

xxxii. Museleku, E. K. (2021). Valuation for compensation practices in Kenya: an evaluation. *Property Management*.39 No. 4, pp. 479-492. https://doi.org/10.1108/PM-09-2020-0058

xxxiii. Nduta, B. K. (2021). *The Impact of Interest Rate Capping on Performance of Real Estate Investment Trusts in Kenya* (Doctoral dissertation, United States International University-Africa).

xxxiv. Nyoro, M. P. (2017). *Determinants of financial performance of real estate investment trusts in Kenya* (Doctoral dissertation, Master's Thesis, Kenyatta University]. Nairobi, Kenya. https://irlibrary. ku. ac. ke/bitstream/handle/123456789/19172/determinants% 20of% 20financial. pdf).

xxxv. Ojijo, E. O. (2019). *Valuation of Timber Plantation in Kenya: A Case Study of Sitoi Tea Estate, Elburgon, and Kaptumo* (Doctoral dissertation, University of Nairobi).

xxxvi. Omboi, B. M. (2011). Factors influencing real estate property prices a survey of real estate in Meru Municipality, Kenya.

xxxvii. Patena, W. (2010). Company valuation: how to deal with a range of values? *Available at SSRN 1727563*.

xxxviii. Pinto, J. E. (2020). *Equity asset valuation*. John Wiley & Sons.

xxxix. Schulz, R. (2013). Valuation of properties and economic models of real estate markets. Humboldt-Universiẗat zu Berlin.

xl. Tajani, F., Morano, P., & Ntalianis, K. (2018). Automated valuation models for real estate portfolios: a method for the value updates of the property assets. *Journal of Property Investment & Finance*.

xli. Tajani, F., Morano, P., Salvo, F. and De Ruggiero, M. (2020), "Property valuation: the market approach optimized by a weighted appraisal model", *Journal of Property Investment & Finance*, Vol. 38 No. 5, pp. 399-418. https://doi.org/10.1108/JPIF-07-2019-0094

xlii. Tajani, F., Morano, P., Salvo, F., & De Ruggiero, M. (2019). Property valuation: the market approach optimized by a weighted appraisal model. *Journal of Property Investment & Finance*.

xliii. Twain, M. (2012). Commonly used methods of valuation. *National Association of Certified Valuators and Analysts, retrieved on 28*(1), 2018.

xliv. Wirtz, H. (2012). Valuation of intellectual property: A review of approaches and methods. *International Journal of Business and Management*, *7*(9), 40.

xlv. Yeh, I. C., & Hsu, T. K. (2018). Building real estate valuation models with a comparative approach through case-based reasoning. *Applied Soft Computing*, *65*, 260-271.