

International Journal of Finance and Accounting (IJFA)

Immovable Properties and Financial Performance of Pension Funds in Kenya

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Article History

Received 12th March 2026

Received in Revised Form 10th April 2026

Accepted 8th May 2026



How to cite in APA format:

Chepngeno, J., Kimani, M., & Matanda, J. (2026). Immovable Properties and Financial Performance of Pension Funds in Kenya. *International Journal of Finance and Accounting*, 11(3), 30–46. <https://doi.org/10.47604/ijfa.3745>

Abstract

Purpose: The financial performance of pension funds is critical for ensuring their sustainability and ability to provide adequate benefits to retirees. In Kenya, pension funds play a major role in facilitating economic growth and financial security. However, there is still an existence of low returns for some of these funds. The study aimed to establish the effect of immovable properties on the financial performance of pension funds in Kenya. This study was guided by modern portfolio theory (MPT).

Methodology: A descriptive research design was adopted for this study. The target population for this research was 10 pension fund providers in Kenya. Secondary data was utilized for this study. A secondary data collection sheet was used to collect the data. Descriptive statistics such as mean, variance, and standard deviation, and frequency distribution tables were used to analyze data. Inferential statistics used correlation and regression analysis. The study employed a panel regression model.

Findings: The trend analysis (2016–2024) shows volatile immovable property returns, peaking at 9.6% in 2020 but declining to 0.4% in 2024. Overall financial performance improved from 1.00% to 1.17%. Financial performance is highly correlated with immovable properties ($r = 0.723$, $p < 0.01$). The immovable properties significantly enhance pension fund performance.

Unique Contribution to Theory, Practice and Policy: Pension fund trustees, managers, and the RBA should enhance diversification by strategically increasing real estate. Emphasis should be placed on quality assets, robust risk management, liability matching, and currency hedging. The RBA should strengthen regulatory guidelines, monitoring, and transparency to safeguard members' retirement savings.

Keywords: *Immovable Properties, Financial Performance, Pension Funds, Kenya*

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INTRODUCTION

Financial performance refers to the ability of an organization to effectively manage and utilize its resources and assets to generate revenues, increase income streams, and achieve its stated objectives (Owinyo, 2017; IAI, 2016). It is a subjective measure that evaluates how efficiently a firm uses assets from its primary operations to enhance profitability, sustainability, and overall organizational growth (IAI, 2016). In the context of retirement benefit schemes and pension funds, financial performance denotes the capacity of the fund to manage investments prudently in order to generate returns that preserve and grow members' contributions while meeting future obligations. This performance is commonly assessed using indicators such as return on investment (ROI) and return on assets (ROA), which reflect the extent to which the fund achieves profitability and operational efficiency (IAI, 2016). Furthermore, financial performance serves as a key metric for determining organizational progress toward established goals and provides a basis for future planning and strategic actions aimed at improving performance (Batchimeg, 2017).

Retirement benefits schemes allocate funds to various available assets in the markets aimed at the preservation of the members' contributions as well as earning attractive returns (PPI, 2024). In Kenya, there are various investment opportunities that retirement benefits schemes can invest in, such as immovable properties, equities, government securities, and bond investments. RBA offers investment guidelines for retirement benefit schemes in terms of the asset classes to invest in and the limits of exposure to ensure good returns and that members' funds are hedged against losses (Cytton Investments, 2024). To monitor returns and losses of pension funds, a variety of financial ratios can be used to assess the financial performance of pension funds. Financial ratios are defined as the relationship between two financial balances or calculations (Kigen, 2016, and Keli, 2021).

Pension portfolios need to be better designed and measured with criteria that are explicitly derived from what they are trying to achieve (World Bank, 2010). According to the RBA's regulations, the various schemes, through their trustees, can formulate their own investment policy statements (IPS) to act as a guideline on how much to invest in the asset option and assist the trustees in monitoring and evaluating the performance of the fund. However, IPSs often vary depending on risk-return profile and expectations, mainly determined by factors such as the scheme's demography and the economic outlook (Cytton Investments, 2023). Walker 2010, Mungai 2017, and Kinyua 2022) observed that the assessment of the fund managers' level of ability to bring about return on investment proportionate to the assumed risk rate can be used as a measure of how well-defined contribution pension funds have performed financially. In addition, the effectiveness of fund managers in optimizing portfolio diversification, mitigating risks, and ensuring stable returns is a crucial determinant of the financial performance of pension funds (Otieno, 2020).

Immovable properties refer to assets that are inherently stable and cannot be moved without altering or damaging their substance (Bajaj, 2024). It is anything which is affixed to land under someone's ownership (Paliwal, 2023). Examples of immovable properties are real estate, that is, the residential, commercial, and industrial properties. It also includes agricultural land used for farming purposes. Such assets tend to appreciate over time and can generate income through rentals, leases, or resale. Its permanence, utility, and appreciation distinguish it from other types of assets. Pension funds in Kenya have allocated 30% of their total assets to immovable properties. Including immovable properties in alternative investments helps pension funds to

mitigate risks while contributing to the financial sustainability of pension funds (Cytton Investments, 2021).

Statement of the Problem

Financial performance of pension funds is a key determinant of their ability to meet retirement obligations and provide adequate benefits to contributors. Pension funds in Kenya play a vital role in enhancing financial performance by providing long-term capital for economic growth and ensuring financial security for retirees (RBA, 2024). Total investments held by the National Social Security Fund (NSSF) by December 2022 were Ksh295.65 billion (Pensioner, 2023). Despite the size of pension assets growing, pension funds still record low financial performance mainly because of limited diversification in investment portfolios (Muli, 2019, & Nyabuto, 2022). The mismatch between returns and obligations is a concern for pension funds and the adequacy of retirement income. Failure to address the inefficiencies in pension fund investments is a risk to pension funds in Kenya. For instance, contributors may get reduced or delayed benefits upon retirement, resulting in financial insecurity for retirees. In addition, pension funds that underperform may lose the trust of stakeholders and contributors and further threaten the sustainability of the schemes. Oyoo (2020) researched factors affecting the financial performance of pension schemes in Kenya. The factors were poor economic performance, insufficient funding of quasi-government schemes, and bad investment decisions. The study did not explain whether alternative investments could also affect the financial performance of pension funds. In the study of Mwachanya (2015), on the impact of asset allocation on the financial performance of pension funds in Kenya, the study focused on the broader aspects of asset allocation without looking deeply into alternative investments and their effects on the financial performance of pension funds. Keli (2021) studied the effect of real estate investments on the financial performance of pension funds in Kenya. The study presents a conceptual gap because not all alternative investments were considered. Nyabuto (2022) studied the effect of portfolio diversification on the financial performance of pension funds in Kenya. The study gave the general objective but did not mention the alternative investments in the specific objectives. Sabugo (2017) studied factors that influence investment income growth in Tanzanian social security programs. This study addressed the research gaps on investment diversification and the financial performance of pension funds in Kenya.

Objectives of the Study

The objective of the study was to establish the effect of immovable properties on the financial performance of pension funds in Kenya.

Theoretical Review

This chapter entails a theory relevant to the study topic

Modern Portfolio Theory

Modern portfolio theory was developed by Harry Markowitz in 1952. The theory argues that investors are risk-averse and, for a given level of expected return, they will always prefer the less risky portfolio (Markowitz, 1952). The theory had the insight that, because of broad economic influences, risks across assets were correlated to a degree. As a result, investors could eliminate some but not all risks by holding a diversified portfolio (Markowitz, 1952). Modern portfolio theory aligns with this research because immovable properties, such as commercial and residential properties, are viewed as a stable source of income as well as a solid capital

Keli (2021) researched the effect of real estate investments on the financial performance of pension funds in Kenya. A descriptive research design was employed. Secondary data was collected by use of a secondary data collection sheet. The data was for the period between 2016 and 2020. The study selected a sample of 10% of the total population. From the findings, at a 5% significance level, the correlation results reveal that real estate investments have a positive association with the financial performance of pension funds in Kenya. In addition, the correlation was statistically significant. However, this study does not prove that real estate investments directly cause better financial performance. Other factors, such as economic conditions, government policies, or market trends, could also be influencing the results.

Mella (2016) studied the effect of real estate investments on the financial performance of pension funds in Kenya. The study adopted a descriptive survey research design. The study also adopted a census of all the pension funds that have made real estate investments, totaling 48 as of December 2015. A multiple regression model was used to analyze data. The findings of the study indicate that real estate investments positively and strongly affect return on investment for the pension funds in Kenya. Although the study concludes that real estate investments and pension fund performance are strongly positively correlated, it ignores possible outside influences that might affect both real estate values and pension fund returns, such as interest rate fluctuations, economic cycles, and regulatory changes. Furthermore, the time period is ambiguous, which makes it challenging to evaluate whether the results take economic fluctuations into account.

Muthuri (2014) studied the effect of property investment on asset growth of pension funds in Kenya. The study employed a descriptive survey research design. The target population comprised 1216 registered pension funds in Kenya as of 2013. Secondary data from pension fund financial statements was used. A multiple regression model was used to analyze the data. The sample size of the study was 40 pension schemes that have invested in property. The findings of the study show that immovable properties are statistically significant to asset growth, as indicated by the positive and strong Pearson correlation coefficients. This indicates that there is a positive relationship between property investment and asset growth of pension funds in Kenya. However, the study focused only on asset growth but not on the diversification of assets.

METHODOLOGY

This section explains research methodology, which includes research design, target population, census, data collection instruments, data collection procedures, sampling frame, data processing and analysis, and diagnostic tests.

Research Design

This study adopted a descriptive research design. Creswell (2014) states that a descriptive research design involves collecting and analyzing quantitative or qualitative data to describe the characteristics of a population, event, or phenomenon.

Target Population

According to Mugenda & Mugenda (2003), the target population is a whole group of people, organizations, or things that share certain characteristics that are relevant for the study and from which conclusions must be drawn. The target population for this research comprises 10 pension fund providers in Kenya registered under RBA.

Sampling Frame

Sampling frame refers to a list from which a sample of the target population can be drawn (Rahi, 2017). 10 pension fund providers in Kenya registered under RBA constituted the sampling frame for this study.

Census

A census is a research technique of collecting data from all the members of a population of interest, rather than sampling. In this study, the census approach involves researching 10 pension fund providers in Kenya registered under RBA. By encompassing the entire population, the study confirmed that findings include the actual investing patterns of pension funds without relying on sample estimates.

Data Collection Instruments

Secondary data were utilized for this study. To ensure that the conclusions are supported by accurate and verifiable information, the study used a secondary data collection sheet to document historical trends for 9 years from the period 2016 to 2024.

Data Collection Procedures

Data collection procedures are a systematic way of getting and recording the information relevant to a research study to reinforce the accuracy and consistency of data handling (Creswell, 2014). The data collection for this study followed systematic steps. Secondary data reports, including audited financial statements, investment performance reports, and asset allocation records, were downloaded from the RBA website and official pension fund sources.

Data Processing and Analysis

Descriptive statistics such as mean, variance, standard deviation, and frequency distribution tables were used to analyze data. Inferential statistics involved the use of correlation and regression analysis. A panel regression model was used in this study because it allows for the examination of dynamic relationships, such as how past investment decisions influence current financial performance. Data presentation was done through tables for clarity and to enhance the interpretation of the findings.

The panel regression model that was used is expressed as follows;

$$Y = \beta_0 + \beta_1 X_{1it} + \varepsilon \dots\dots\dots \text{Equation 1}$$

FINDINGS AND DISCUSSIONS

This section presents the study's results and discussion, structured into descriptive, diagnostic, and inferential analyses.

Descriptive Statistics

This section provides summary statistics for the main study variables. Measures such as the mean, minimum, maximum, standard deviation, skewness, and kurtosis were computed to capture the central tendency and dispersion of pension funds' investments and financial performance. Table 1 summarizes the results.

Table 1: Descriptive Statistics

	N	Min	Max	Mean	SD	Skewness	Kurtosis
Immovable properties	10	0.8	0.87	0.8392	0.02142	-0.372	-0.909
Financial Performance	10	0.87	0.96	0.9015	0.02324	0.590	-0.266

Table 1 shows that immovable properties had a minimum investment level of 0.80, implying that some pension funds were generating low returns from immovable properties, while the maximum value of 0.87 is an indication that some pension funds were earning higher returns. The mean investment value was 0.8392. This relatively high mean underscored the central role of real estate in pension fund portfolios, pointing to its importance as a reliable and long-term income-generating asset. The standard deviation of 0.02142 suggested that investments in immovable properties did not fluctuate significantly across the sampled observations. This implied that pension funds maintained stable allocations in this asset category over time. The skewness statistic was -0.372, which indicated a slight negative skew, meaning that more values were concentrated on the higher end of the distribution. The kurtosis value of -0.909 implied a flatter distribution compared to a normal curve, pointing to fewer extreme investment values. These results showed that immovable properties were a consistent and reliable part of the investment portfolios of pension funds. The stability could have been due to the long-term nature of real estate investments, which typically provide steady returns.

The descriptive analysis of financial performance showed a minimum value of 0.87, indicating that the lowest recorded outcome across pension funds was relatively strong. This suggested that even the least performing funds managed to achieve favorable results during the study period. In contrast, the maximum value of 0.96 represented the highest performance attained, pointing to the ability of some funds to generate superior outcomes, possibly due to more efficient portfolio management strategies. The mean financial performance was 0.9015. This high mean value reflected strong overall outcomes across the industry, underscoring the effectiveness of pension fund investment strategies in delivering consistent returns. The standard deviation of 0.02324 suggested that pension funds recorded relatively low variability in their returns. The skewness statistic of 0.590 indicated a modest positive skew, meaning that most pension funds achieved returns closer to the lower end, with fewer achieving higher returns. The kurtosis value of -0.266 implied a flatter distribution compared to normal, pointing to limited occurrence of extreme performance values. These results suggested that pension funds maintained steady financial performance throughout the study period. The stability could have been attributed to the diversified nature of their investment portfolios, which minimized risk exposure.

Trend Analysis

The trend analysis for investment in immovable properties assessed how this asset class performed over the observed period of 2016 to 2024 and the extent to which it contributed to overall investment growth. The analysis is shown in Figure 2.

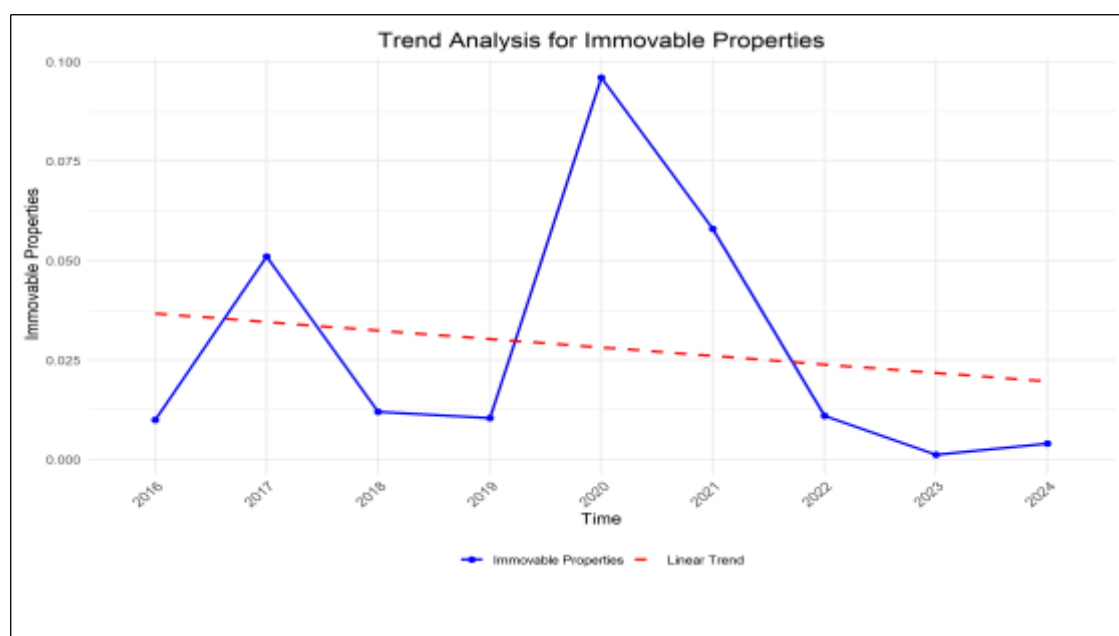


Figure 2: Trend Analysis for Investments in Immovable Properties

Trend analysis in 2016 shows that immovable property was recorded at 1.0%, which rose sharply to 5.1% in 2017, indicating strong early growth. However, it declined to 1.2% in 2018 and further to 1.04% in 2019, suggesting a cooling off in performance. A major surge was observed in 2020, when immovable property peaked at 9.6%, the highest value during the study period, reflecting exceptional performance. The momentum eased in 2021, when it dropped to 5.8%, and further contracted to 1.1% in 2022. The trend bottomed out in 2023 at 0.12%, before showing a slight recovery to 0.4% in 2024. Overall, the trend demonstrated high volatility, with notable spikes in 2017 and 2020, but a general decline thereafter, pointing to unstable performance in immovable property investments over the nine years.

The changes in immovable property allocation implied several effects on the financial performance of pension funds. The increase in allocation boosted portfolio diversification and was likely to enhance returns during the growth phase. However, the subsequent decline indicated a shift in priorities, where funds might have pursued safer or more liquid assets to cushion performance. This trend suggested that immovable properties contributed positively to fund growth only when maintained at moderate levels. The reliance on high exposure to immovable property could have jeopardized performance due to illiquidity and high transaction costs. At the same time, reduced allocation meant missing out on potential long-term capital appreciation. Pension funds, therefore, needed to strike a balance by maintaining immovable properties within an optimal range that supported steady growth while minimizing risks. The overall implication was that immovable property investments had a mixed but significant effect on financial performance. Their impact depended largely on timing, allocation percentage, and broader market conditions.

Trend Analysis for Financial Performance

The trend analysis of financial performance provided insights into whether the pension funds demonstrated resilience, stability, and competitiveness in the market, and how effectively

diversification strategies contributed to maximizing returns for beneficiaries. This is shown in Figure 3.

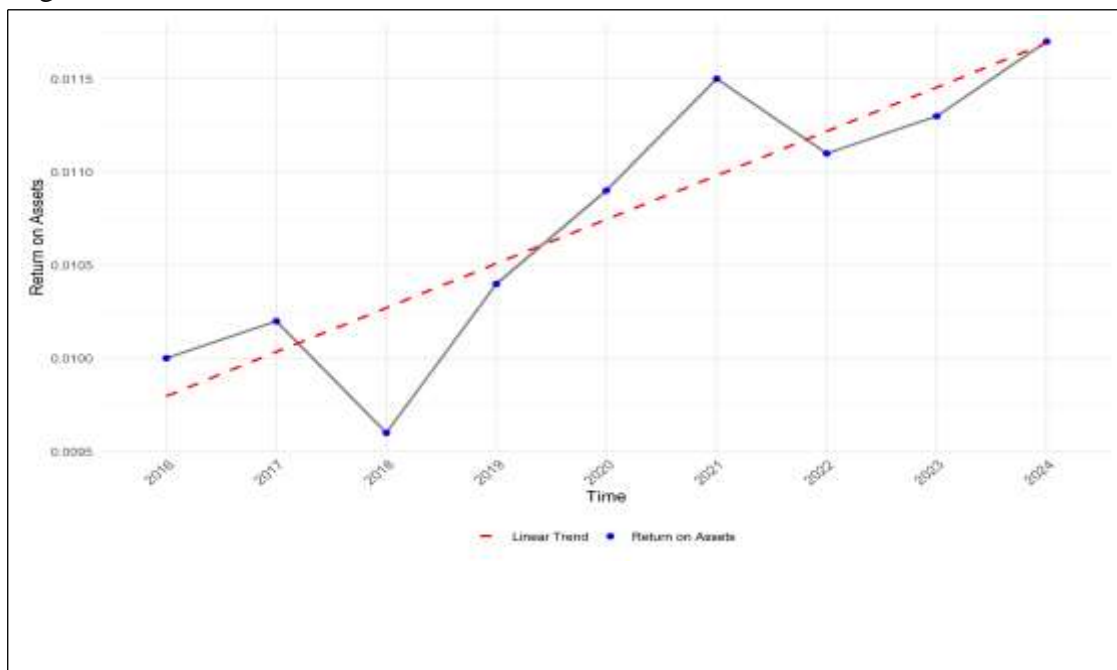


Figure 3: Trend Analysis for Financial Performance

The results in Figure 3 revealed that performance experienced periodic fluctuations but maintained an overall upward trajectory across the observed period. In 2016, financial performance was recorded at 1.00%, and this increased slightly to 1.02% in 2017, indicating a marginal growth of 0.02%. In 2018, performance dropped to 0.96%, representing a decline of 0.06%, signalling a temporary contraction. This was followed by a recovery in 2019, where performance rose to 1.04%, marking an increase of 0.08%. In 2020, performance continued to strengthen to 1.09%, reflecting sustained growth momentum. In 2021, the results showed further improvement as performance peaked at 1.15%, an overall gain of 0.06% from the previous value. These changes illustrated both volatility and resilience in performance within the period.

In 2022, there was a slight decline to 1.11%, indicating a dip of 0.04%, but this was followed by renewed growth in 2023, when financial performance stood at 1.13%, equivalent to an increase of 0.02%. The trend closed on a stronger note in 2024, when financial performance rose to 1.17%, the highest value recorded during the nine years, representing a net growth of 0.06%. Overall, financial performance demonstrated a gradual upward trend with minor fluctuations, suggesting that pension funds experienced steady improvements in their overall outcomes, supported by relatively stable investment allocations.

Inferential Statistics Results

Inferential statistics were employed to examine the relationship between immovable properties and the financial performance of pension funds in Kenya.

Correlation Analysis

Correlation analysis was conducted to determine the relationship between immovable properties and the financial performance of pension funds in Kenya.

Table 2: Correlation Analysis

		Immovable properties	Financial performance
Immovable properties	Pearson Correlation	1	
	Sig. (2-tailed)		
Financial performance	Pearson Correlation	0.723**	1
	Sig. (2-tailed)	0.000	

** . Correlation is significant at the 0.01 level (2-tailed).

Investment in immovable properties shows a strong positive and statistically significant relationship with financial performance ($r = 0.723$, $p < 0.01$). This indicates that higher allocations to real estate investments are associated with improved financial performance, likely due to stable income streams and long-term capital appreciation.

Regression Analysis

The study sought to establish the relationship between immovable properties and the financial performance of pension funds in Kenya. Panel regression analysis was conducted to obtain the R coefficient and the R-squared value, which determined the strength of the relationship between the study variables. The model summary is presented in Table 3.

Table 4.3: Model Summary

Model	Model Summary				N
	R	R Square	Adjusted R-Square	Std. Error of the Estimate	
1					
Financial performance	0.909 ^a	0.827	0.819	0.0098	90

Table 3 presents the model summary of the regression analysis conducted to examine the effect of immovable properties on the financial performance of pension funds in Kenya. The results indicate a strong relationship, as shown by the multiple correlation coefficient ($R = 0.909$). This high R value suggests a very strong positive association between immovable properties and the financial performance of pension funds.

The coefficient of determination (R Square = 0.827) implies that approximately 82.7 percent of the variation in financial performance can be explained by immovable properties. The remaining 17.3 percent of the variation in financial performance is attributed to other factors not captured in the model, such as managerial efficiency, regulatory changes, macroeconomic conditions, and operational costs.

The Adjusted R-Square value of 0.819 further confirms the robustness of the regression model. Adjusted R-squared takes into account the number of independent variables in the model and provides a more reliable measure of explanatory power. Additionally, the standard error of the estimate (0.0098) is relatively small, suggesting that the observed financial performance values

are closely clustered around the predicted values generated by the regression model. This implies a good level of accuracy in the model's predictions.

The model is based on ninety observations ($N = 90$), corresponding to the panel data used in the study period. Overall, the model summary demonstrates that immovable properties are a strong predictor of financial performance among pension funds in Kenya, providing empirical support for the study's objectives and reinforcing the importance of immovable properties in enhancing pension fund performance.

Analysis of Variance (ANOVA)

The Analysis of Variance (ANOVA) was computed to determine whether there is a statistically significant difference in the means of financial performance. The ANOVA Table 4 presents the results

Table 4: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.039	4	0.010	101.363	0.000
	Residual	0.008	85	0.000		
	Total	0.047	89			

Table 4 presents the Analysis of Variance (ANOVA) results for the regression model examining the effect of immovable properties on the financial performance of pension funds in Kenya. The regression sum of squares is 0.039, indicating the proportion of variation in financial performance that is explained by immovable properties. The residual sum of squares is 0.008, representing the variation in financial performance that is not explained by the model and may be attributed to other factors not captured in the study.

The model has 4 degrees of freedom for the regression and 85 degrees of freedom for the residual, giving a total of 89 degrees of freedom. The mean square for the regression is 0.010, while the mean square for the residual is approximately 0.000. The computed F-statistic is 101.363 with a significance (p-value) of 0.000. Since the p-value is less than 0.05 level of significance, the regression model is statistically significant.

Regression Coefficient Results

Panel regression analysis between the dependent and independent variables was carried out to establish the effects of immovable properties on the financial performance of pension funds in Kenya. The coefficient results are shown in Table 5.

Table 5: Regression Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error				Lower Bound	Upper Bound
1	(Constant)	-0.031	0.067		-0.464	0.644	-0.163	0.101
	Immovable properties	0.521	0.075	0.478	6.959	0.000	0.372	0.670

From Table 5, the regression equation can be expressed as

$$Y = -0.031 + 0.521 \text{Immovable properties}$$

Hypotheses Testing

The corresponding null hypothesis stated that investment in immovable properties has no significant effect on the financial performance of pension funds in Kenya. The results presented in Table 5 revealed that investment in immovable properties had a positive and statistically significant effect on the financial performance of pension funds, with a beta coefficient of 0.521 and a p-value of 0.000 ($p < 0.05$). This implies that a one-unit increase in investment in immovable properties leads to a 0.521-unit increase in the financial performance of pension funds, holding other factors constant. The high t-statistic of 6.959 further confirms the strength and significance of this relationship. These findings indicate that investments in immovable properties substantially enhance the financial performance of pension funds by providing stable income streams and capital appreciation over time. Consequently, the study rejected the null hypothesis and concluded that investment in immovable properties has a significant and positive effect on the financial performance of pension funds in Kenya.

The positive relationship between immovable properties and financial performance is consistent with prior studies in the Kenyan context. Rotich (2016) found a strong positive correlation between real estate investments and pension fund performance, aligning with the current study's findings that immovable properties significantly improve returns. Similarly, Mella (2016) and Muthuri (2014) also reported positive and significant relationships between immovable properties and pension fund performance or asset growth. These studies support the assertion that real estate assets provide stable long-term returns and act as a hedge against inflation, which is crucial for pension funds. However, while Rotich (2016) and others demonstrate correlation, the current study extends the evidence by establishing a direct causal effect through regression analysis, thereby strengthening the argument for real estate as a key diversification strategy.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This section presents the summary, conclusions, and recommendations based on the study findings on the effect of immovable properties on the financial performance of pension funds in Kenya.

Summary

The study found that investment in immovable properties significantly enhances the financial performance of pension funds in Kenya. The regression analysis revealed a strong positive relationship indicating that property investments have the greatest influence among the diversification variables. This suggests that a one-unit increase in investment in immovable properties leads to improvement in pension fund performance, holding other factors constant. The high t-statistic further confirms the robustness of this relationship, implying that immovable properties are a key driver of returns. The findings support the view that immovable properties provide stable long-term returns and act as an inflation hedge, making them a strategic asset class for pension funds. However, while real estate investments offer strong performance benefits, pension funds must still manage liquidity and market risks associated with property markets. Overall, immovable properties remain a critical component of diversified pension fund portfolios in Kenya.

Conclusion

The study revealed that investment in immovable properties significantly enhances the financial performance of pension funds in Kenya. The regression results show a strong positive

and statistically significant effect, indicating that higher allocations to real estate lead to improved returns. This underscores the critical role of property investment in pension fund portfolios as a stable, long-term growth driver. Although the trend analysis demonstrated considerable volatility between 2016 and 2024, the overall evidence confirms that immovable properties contribute meaningfully to portfolio diversification, income generation, and capital appreciation. However, the findings also suggest that performance depends on maintaining optimal allocation levels, effective timing, and prudent risk management. Excessive exposure may increase liquidity and cost-related risks, while underinvestment may limit growth potential. Therefore, balanced and strategic investment in immovable properties remains essential for sustainable pension fund performance.

Recommendations

Pension fund trustees, fund managers, and the Retirement Benefits Authority (RBA) should increase and strategically manage real estate allocations to enhance long-term fund performance, given the significant positive effect of immovable property investments on financial outcomes. Fund managers should prioritize high-quality, income-generating properties, ensure adequate diversification within the real estate portfolio across sectors and locations, and conduct rigorous due diligence, valuation, and comprehensive risk assessment to manage volatility, illiquidity, and market fluctuations. They should also adopt long-term investment horizons and implement active property management strategies to maximize returns. The RBA should strengthen regulatory guidelines on property investment standards, enforce prudent exposure limits, and promote transparent and consistent reporting practices to safeguard members' retirement savings. Additionally, pension scheme administrators should enhance monitoring and performance evaluation frameworks to ensure property investments remain within optimal levels that balance return generation and risk mitigation for sustainable fund growth.

Recommendations for Future Study

Future research should examine the immovable properties on pension fund performance using longer time frames and larger, more representative samples. Studies could explore additional asset classes, including infrastructure, private equity, and other alternative investments, to assess their contributions to portfolio returns and risk mitigation. Further research could also investigate the moderating effects of regulatory changes, economic cycles, and varying risk management practices on the outcomes of diversification strategies. Comparative analyses between domestic and offshore investments, as well as across different pension schemes, could provide deeper insights into optimal allocation models. Additionally, studies could examine the role of active versus passive management, liquidity considerations, and the influence of market shocks on portfolio resilience. Such research would strengthen understanding of how immovable properties supports sustainable growth, enhances financial performance, and safeguards pension members' retirement savings over the long term.

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