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Abstract

Private voluntary pension schemes in Kenya are instrumental in providing supplementary retirement income and fostering long-term savings for members beyond mandatory public systems. However, these schemes continue to face substantial challenges in achieving consistent positive real returns therefore the study sought to assess the mediating effect of strategic optimal portfolio mix on the influence of portfolio diversification and financial performance of private voluntary pension schemes in Kenya. The study was anchored on Black-Litterman Theory, which blends investor views with market equilibrium returns to produce stable, intuitive, and diversified portfolios suitable for pension funds. A descriptive research design was adopted. The unit of analysis was 22 voluntary pension schemes and 28 registered umbrella retirement benefits schemes. The unit of observation was 50 finance managers, 50 investments officers and 50 fund managers. Since the study population is manageable the study adopted census technique to incorporate all the 150 respondents. Primary data were collected via self-administered semi-structured questionnaires, while secondary data on return on investment were sourced from annual financial statements covering 2019–2023. Instrument reliability and validity were established through a pilot test involving 15 respondents from five selected schemes, with Cronbach's Alpha values above 0.7 confirming internal consistency. Data analysis utilized descriptive statistics and inferential statistics, with diagnostic tests (normality, multicollinearity, homoscedasticity, linearity) confirming model assumptions. From the findings the P-values were less than 0.05 confidence level therefore the study rejected the null hypothesis and based on the rule of significance, the study concluded that strategic optimal mix has a significant mediating effect on the relationship between portfolio diversification and financial performance of private voluntary pension schemes in Kenya. Accordingly, it is recommended that pension schemes invest in continuous professional development of finance officers on portfolio optimization and adopt formal policies encouraging diversification across asset classes to balance risk and return while safeguarding member interests.

Keywords: *Strategic Optimal, Portfolio Mix, Portfolio Diversification, Financial Performance, Private Voluntary, Pension Schemes*

1.0 Background of the Study

Strategic optimal portfolio mix is a critical concept in investment management, particularly in the context of a pension scheme. It refers to the strategic allocation of assets in a portfolio to achieve the highest possible return for a given level of risk, considering the long-term investment objectives and constraints (Pu, & Wang, 2019). The primary objective of the strategic optimal portfolio mix is to manage risk effectively. By diversifying investments across various assets, investors can minimize the impact of negative events affecting any single asset class. A well-diversified portfolio reduces the potential for catastrophic losses and helps ensure a smoother and more consistent investment journey. The concept of the risk-return tradeoff is central to the strategic optimal portfolio mix. It acknowledges that higher returns often come with increased risk, and vice versa. Investors must find the optimal balance that aligns with their risk tolerance and financial objectives. The strategic optimal portfolio mix helps achieve this equilibrium (Shen, & Wang, 2019).

The right portfolio mix is of paramount importance to a pension scheme for several reasons. First, it helps manage and mitigate investment risks. By diversifying the assets across various classes, such as stocks, bonds, and alternative investments, the pension scheme can reduce the overall risk exposure. This diversification shields the fund from extreme market fluctuations, ensuring the preservation of the capital and the stability of returns over time. Moreover, an appropriate portfolio mix ensures that the pension scheme can meet its long-term obligations to its beneficiaries effectively. By considering factors such as funding status, projected liabilities, and expected cash flows, the portfolio mix is tailored to align with the scheme's specific objectives and requirements. This alignment helps in securing the financial sustainability of the pension scheme, providing a stable income stream for retirees during their post-employment years (Doeswijk & Lam, 2019). In addition to risk management and long-term stability, the right portfolio mix also considers the scheme's ability to cope with inflation. Inflation erodes the purchasing power of money over time, and pension schemes need to safeguard against its impact. By incorporating inflation-resistant assets, such as real estate or inflation-linked bonds, the portfolio mix can protect the scheme's purchasing power and ensure the beneficiaries' future needs are met effectively.

The right portfolio mix seeks to capitalize on growth opportunities in different asset classes. By diversifying across various investments with varying risk and return profiles, the pension scheme can maximize its returns over the long term. This growth potential is critical for sustaining the scheme's financial health and ensuring it can meet the beneficiaries' evolving needs and lifestyles during their retirement years. Determining whether the right portfolio mix has been achieved involves continuous monitoring and evaluation. Fund managers regularly assess the performance of the portfolio against the scheme's objectives, risk tolerance, and market conditions. If the portfolio generates reasonable returns with manageable risk, maintains diversification, and aligns with the scheme's long-term objectives, it indicates that the right portfolio mix has been successfully achieved (Bekkers, 2019).

In Kenya, the Retirement Benefits Authority (RBA) has established specific investment guidelines to ensure prudent management of pension funds and to promote portfolio diversification. These guidelines are intended to help pension schemes achieve an optimal

portfolio mix that balances risk and return while safeguarding contributors' savings. According to the RBA (2023), pension schemes are allowed to invest up to 30 per cent of their assets in immovable property, such as income-generating real estate. This provision aims to enhance long-term capital growth and hedge against inflation.

Investments in listed equities are permitted up to a maximum of 70 per cent, allowing schemes to benefit from potential capital appreciation and dividend income, though equities also carry relatively higher market risks. Pension funds are also expected to allocate a significant portion of their investments to government securities and approved bonds, with a minimum requirement of 20 per cent, but potentially up to 100 per cent for conservative or guaranteed funds. These fixed-income securities offer stable and predictable returns, thus providing a strong foundation for portfolio stability. In terms of liquidity, the RBA guidelines recommend that no more than 5 per cent of the portfolio should be held in cash and demand deposits, which are primarily used to meet short-term obligations and manage day-to-day cash flow needs (RBA, 2023). Additionally, schemes may invest up to 15 per cent of their portfolios in offshore investments, provided these are in secure and well-regulated jurisdictions. Offshore diversification can help pension schemes mitigate local market risks and take advantage of global growth opportunities (RBA, 2023).

Financial performance is the evaluation of a company's or organization's financial health and efficiency in achieving its financial objectives (Barr, 2021). It involves analyzing various financial metrics and indicators to assess the profitability, liquidity, solvency, and overall effectiveness of an entity's financial operations (Almajali, 2020). Financial performance is crucial for investors, stakeholders, and management as it provides insights into the organization's ability to generate profits, manage resources, meet obligations, and create value for its shareholders (Siro, 2021). In the context of private pension schemes, financial performance refers to the ability of the scheme to effectively manage its financial resources in a way that ensures the sustainability, growth, and ability to meet future retirement obligations to its members (RBA, 2022). It is a measure of how well the scheme is generating returns on investments, maintaining solvency, and operating efficiently. For individual pension funds, financial performance is reflected in their ability to accumulate sufficient retirement savings for contributors while minimizing risks associated with investment portfolios (OECD, 2021). Similarly, for umbrella pension funds, financial performance is evaluated based on their ability to pool contributions from multiple employers, diversify investments efficiently, and optimize returns to enhance retirement security for members (World Bank, 2020).

1.1 Statement of the Problem

Private voluntary pension schemes in Kenya are an important component of the country's retirement savings system because they provide individuals with an additional source of income after retirement beyond the mandatory public pension arrangements. As part of the third pillar in Kenya's multi-pillar pension framework, the financial performance of these schemes is crucial for safeguarding members' savings, maintaining their purchasing power, and strengthening public confidence in voluntary retirement savings. Nevertheless, although the pension sector has experienced steady growth in assets under management, many private voluntary pension schemes have struggled to generate stable and consistent investment returns. Data from the Retirement Benefits Authority (RBA, 2024) shows that total pension assets

reached KSh 2.25 trillion, yet the sector's returns have fluctuated considerably over time. The weighted average investment returns recorded 7.0% in 2020, 11.6% in 2021, 1.7% in 2022, 1.6% in 2023, 13.2% in 2024, and 6.6% by June 2025, highlighting persistent instability in financial performance despite the expansion of the asset base.

These performance concerns are also reflected at the individual scheme level among private voluntary pension plans. For instance, the CPF Individual Pension Scheme reported an increase in assets from KSh 2.88 billion in 2021 to KSh 4.11 billion in 2023, but this growth has not consistently resulted in strong investment outcomes. A similar pattern is evident in the Pan Africa Life Personal Pension Plan, where assets under management grew from approximately KSh 5.2 billion in 2021 to KSh 6.4 billion in 2023, yet the plan has continued to experience fluctuating returns. These inconsistencies are largely associated with limited portfolio diversification and heavy concentration in low-risk, low-return asset classes, while exposure to potentially higher-yield investments such as immovable property remains minimal. As a result, many private voluntary pension schemes continue to face volatility in returns and constrained financial performance, raising concerns about their capacity to deliver adequate and sustainable retirement benefits to members therefore the study seeks to assess the mediating effect of strategic optimal portfolio mix on the influence of portfolio diversification and financial performance of private voluntary pension schemes in Kenya.

2.0 Theoretical Framework

The study was guided by Black-Litterman Theory. The theory was developed by Fischer Black and Robert Litterman in 1990). The theory is as a result of extension of the Modern Portfolio Theory (MPT) to address its practical limitations in constructing optimal investment portfolios. The theory integrates the mean-variance optimization framework from MPT with the Capital Asset Pricing Model (CAPM), allowing investors to incorporate their own market views into the portfolio optimization process. According to Black and Litterman (1990), traditional MPT often leads to unstable and extreme asset weights due to its reliance on historical estimates of expected returns. The Black-Litterman model overcomes this by blending investor views with market equilibrium returns, resulting in more stable, intuitive, and diversified portfolios.

One of the major strengths of the Black-Litterman Theory lies in its ability to combine subjective investor expectations with objective market data, producing a balanced view of expected returns (Satchell & Scowcroft, 2000). This approach enables portfolio managers to adjust for informational asymmetry and reflect their unique insights without significantly deviating from market consensus. Furthermore, the model improves portfolio stability and diversification, minimizing concentration in a few assets and ensuring better alignment with long-term financial goals. The Black-Litterman framework also allows for flexibility in handling multiple asset classes, making it suitable for institutional investors such as pension funds that manage diverse portfolios. Additionally, its Bayesian approach provides a robust statistical foundation for combining prior information with new data, enhancing decision-making under uncertainty (Meucci, 2010).

However, despite its advantages, the Black-Litterman model is not without criticism. Its implementation can be computationally complex and requires strong assumptions about the market equilibrium and the accuracy of investor views (Walters, 2014). The process of quantifying subjective expectations into precise numerical views can also be challenging, introducing potential bias or error. Moreover, while the model stabilizes portfolio weights, it

still relies on accurate estimates of covariance matrices, which can be sensitive to data quality and model specification (Michaud, 2008).

The Black-Litterman Theory is relevant in explaining the aspects of strategic optimal portfolio mix among private voluntary pension schemes in Kenya. The theory emphasizes that optimal portfolio construction involves not only diversification across asset classes such as equities, bonds, real estate, and cash, but also the integration of informed expectations and market conditions into decision-making. Through the strategic optimal portfolio mix, pension fund managers can balance regulatory constraints, market forecasts, and risk tolerance to achieve superior financial performance. The mediating role of the strategic optimal portfolio mix thus aligns with the Black-Litterman premise transforming diversified investments into an efficient, risk-adjusted, and return-maximizing portfolio structure. This ensures that pension schemes attain consistent and sustainable financial outcomes while maintaining flexibility to adapt to market dynamics.

2.1 Empirical Review

Kamau (2019) conducted a study to investigate the impact of strategic optimal portfolio mix on the financial performance of large corporations in East Africa. The study employed purposive sampling to select 10 leading corporations from diverse industries across East African countries. In-depth interviews were conducted with key decision-makers and finance managers of the selected corporations to gather insights into their portfolio management strategies and risk mitigation approaches. The study's findings indicated that East African corporations that implemented strategic optimal portfolio mix practices achieved better financial performance. Corporations that diversified their portfolios across different assets and regions experienced higher returns and enhanced financial resilience.

Nkosi (2020) conducted a study to explore the relationship between strategic optimal portfolio mix and financial performance in South African Real Estate Investment Trusts (REITs). The study employed a random sampling technique to select 20 REITs operating in South Africa as the study's target population. The researcher collected data from the annual reports and financial statements of the selected REITs, analyzing their portfolio compositions, property types, and key financial indicators. The study revealed that REITs in South Africa that adopted strategic optimal portfolio mix practices demonstrated improved financial performance. REITs that diversified their property portfolios across different sectors and geographical locations experienced higher rental income, capital appreciation, and overall financial stability.

Diop (2021) conducted a study to examine the impact of strategic optimal portfolio mix on the financial performance of Microfinance Institutions (MFIs) operating in West African countries. The study adopted a stratified sampling technique to select 30 MFIs from different countries in West Africa as the study's target population. The participating MFIs were administered a questionnaire survey that assessed their portfolio diversification, risk management practices, and financial performance metrics. The study's results indicated that MFIs in West Africa that implemented strategic optimal portfolio mix practices achieved improved financial performance. MFIs that diversified their loan portfolios across various sectors and borrower segments experienced better loan portfolio quality and higher outreach to underserved communities.

Mwamba (2022) conducted a study to investigate the relationship between strategic optimal portfolio mix and financial performance in the mining industry of Central African countries. The study employed convenience sampling and selected 12 mining companies from different Central African countries as the study's target population. Key decision-makers from each selected company participated in structured interviews that explored their portfolio management strategies, risk mitigation practices, and financial performance. The study revealed that mining companies in Central Africa that adopted strategic optimal portfolio mix practices demonstrated improved financial performance. Companies that effectively diversified their mineral portfolios and invested in a mix of commodities with different price sensitivities experienced reduced revenue volatility and increased profitability.

Amadi (2023) conducted a study to examine the impact of strategic optimal portfolio mix on the financial performance of agricultural cooperatives operating in East African countries. The study used purposive sampling and selected 25 agricultural cooperatives from different East African countries as the study's target population. Key stakeholders from each selected cooperative participated in structured interviews that assessed their portfolio diversification strategies, risk assessment practices, and financial performance metrics. The study's findings indicated that agricultural cooperatives in East Africa that adopted strategic optimal portfolio mix practices achieved improved financial performance. Cooperatives that diversified their agricultural product portfolios, invested in value-added activities, and managed commodity price risks experienced increased revenue and enhanced financial stability.

2.2 Conceptual Framework

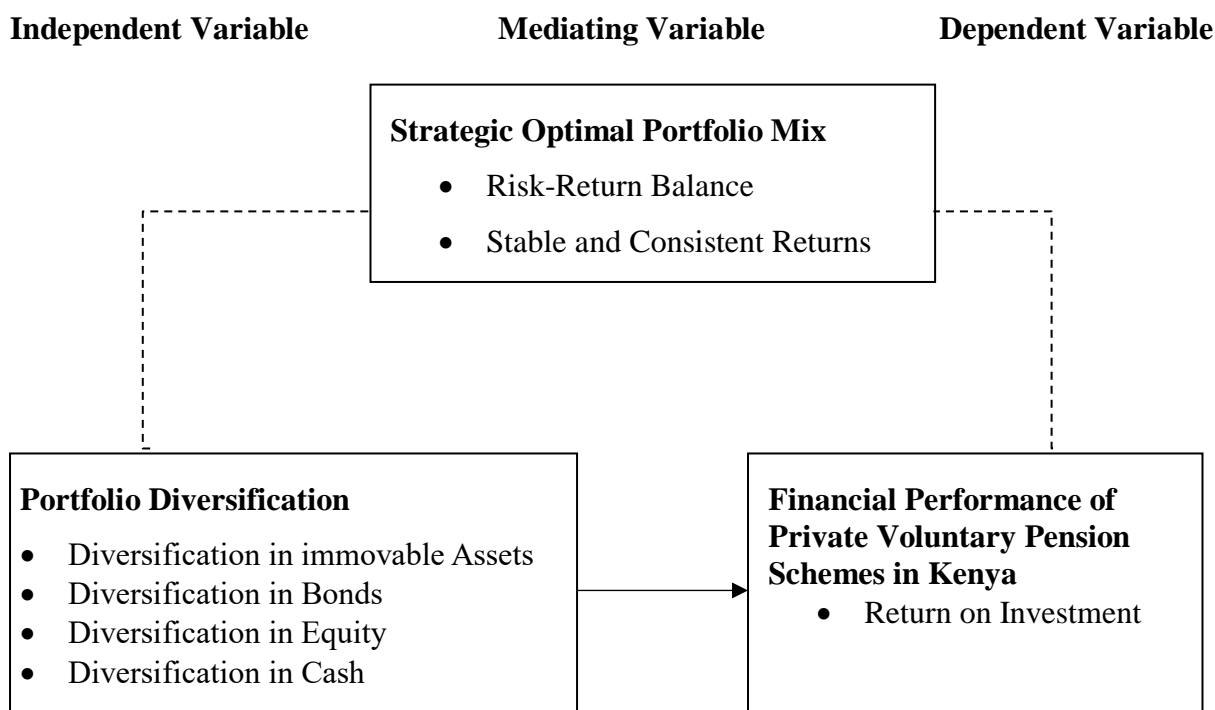


Figure 1: Conceptual Framework

3.0 Methodology

The study was anchored on the positivist research philosophy, which stresses the importance of objectivity and the use of observable and measurable evidence in establishing cause-and-effect relationships among variables. In line with this philosophical orientation, the research

adopted a descriptive research design to investigate how diversification in bonds influences the financial performance of private voluntary pension schemes in Kenya. This design was suitable because it allowed the researcher to systematically describe current bond investment practices while also enabling the examination of the hypothesized link between bond diversification strategies and financial performance. The unit of analysis was 22 voluntary pension schemes and 28 registered umbrella retirement benefits schemes. The unit of observation was 50 finance managers, 50 investments officers and 50 fund managers. Since the study population is manageable the study adopted census technique to incorporate all the 150 respondents. Data collection involved both primary and secondary sources.

Primary data were obtained using self-administered semi-structured questionnaires designed to gather quantitative information on bond diversification practices and their perceived influence on financial performance. Secondary data relating to financial performance, particularly return on investment, were extracted from the annual financial statements of the respective private voluntary pension schemes covering the 2019–2023 period. A pilot study was undertaken using five schemes which are Gencap Individual Pension Plan, NTISL Personal Pension Plan, Fusion Umbrella Retirement Benefits Scheme, Kenindia Umbrella Provident Fund, and Octagon Umbrella Retirement Benefits Scheme where 15 questionnaires were administered to test the reliability and validity of the data collection instrument. Instrument validity was assessed through expert evaluation and exploratory factor analysis, while reliability was determined using Cronbach's Alpha, with 0.7 considered the acceptable threshold for internal consistency. Data analysis incorporated both descriptive and inferential statistical techniques. Descriptive statistics such as frequencies, percentages, means, and standard deviations were used to summarize the characteristics of bond diversification practices and financial performance indicators. Inferential analysis involved correlation analysis and multiple linear regression, which were applied to test the proposed relationship between diversification in bonds and financial performance. In addition, several diagnostic tests including tests for normality, multicollinearity, linearity, and homoscedasticity were conducted to verify the assumptions underlying regression analysis and enhance the credibility of the findings. The analysis was performed using the Statistical Package for Social Sciences (SPSS), and the results were presented in tabular form.

4.0 Results and Discussions

The study distributed 150 questionnaires and received 118 completed responses, achieving a 78.7% response rate. Regarding length of service in the pension sector, 20.3% of respondents had worked for less than 3 years, 33.1% for 4–6 years, 35.6% for 7–10 years, and 11.0% for over 10 years, indicating that most respondents possessed substantial experience which enhances their understanding of portfolio diversification and financial performance management. In terms of scheme longevity, 31.4% of the surveyed pension schemes had been operational for 5–10 years, 39.8% for 11–15 years, 11.0% for 15–20 years, and 17.8% for over 20 years, with longer-established schemes demonstrating stronger financial stability due to accumulated market knowledge, established processes, and refined risk management capabilities.

4.1 Descriptive Findings for Strategic Optimal Portfolio Mix

An optimal portfolio balances risk and return to achieve the highest possible returns for a given risk level. Markowitz (1952) noted that an optimal portfolio consists of assets with negative correlation, forming the efficient frontier in investment. Kibe (2018), Olmo (2021), and Roba and Boyante (2023) observed that portfolio mix significantly affects pension fund returns. The study assessed respondents' level of agreement on the mediating influence of strategic optimal portfolio mix on the relationship between pension asset classes and financial performance.

Table 1: Strategic Optimal Portfolio Mix

Statement	SA (%)	A (%)	U (%)	D (%)	SD (%)	Mean	Std.
By diversifying investments across different asset classes, pension schemes can reduce overall portfolio risk	55.1	32.2	7.6	3.4	2.0	4.3559	0.89180
By blending higher risk and lower risk assets, pension schemes can balance risk and return, optimizing financial performance	49.2	38.1	8.5	2.5	2.0	4.3051	0.86240
A portfolio mix that delivers stable returns helps pension schemes meet financial obligations to members	52.5	35.6	6.8	3.4	2.0	4.3390	0.87920
Consistent returns contribute to maintaining scheme financial health and fulfilling long-term commitments	56.8	30.5	8.5	3.4	1.0	4.3898	0.84766
Regular rebalancing helps pension schemes adjust portfolio holdings to maintain target allocation	51.7	36.4	7.6	2.5	2.0	4.3390	0.85954
Regular rebalancing introduces discipline to the investment process, enhancing better financial decision-making	50.0	39.0	6.8	3.4	1.0	4.3390	0.81880

The findings reveal strong consensus on strategic optimal portfolio mix benefits, with means ranging from 4.3051 to 4.3898. Majority of respondents (87.3%) agreed that diversifying across asset classes reduces portfolio risk, while 87.3% acknowledged that blending higher and lower risk assets optimizes financial performance, consistent with Wanjiku (2021) who demonstrated how diversified portfolios stabilize returns while mitigating market volatility. Additionally, 88.1% agreed that portfolio mixes delivering stable returns help schemes meet member obligations, and 87.3% recognized that consistent returns maintain financial health and fulfill long-term commitments, aligning with Ouma (2022) on stable income streams from low-risk assets. Furthermore, 88.1% agreed that regular rebalancing maintains target allocation, and 89.0% acknowledged that rebalancing introduces investment discipline, supporting Ondieki (2022) who found that diversified approaches including cash holdings enhance long-term financial stability.

Table 2: Company-Facilitated Training for Finance Officers

Response	Frequency	Percentage
Yes	40	33.9
No	78	66.1
Total	118	100.0

The findings indicate that only 33.9% of respondents reported that their companies facilitate training to help finance officers enhance skills on investment distribution across portfolios, while 66.1% revealed no such training provision, suggesting significant gaps in professional development opportunities for investment management personnel.

4.2 Financial Performance of Private Voluntary Pension Schemes

The study assessed respondents' agreement levels on financial performance indicators of private voluntary pension schemes in Kenya, rated on a scale from 1 (lowest) to 5 (highest).

Table 3: Financial Performance of Private Voluntary Pension Schemes

Statement	SA (%)	A (%)	U (%)	D (%)	SD (%)	Mean	Std.
Pension scheme has recorded higher returns on assets over the past five years	14.4	51.7	21.2	9.3	3.4	3.6441	0.95654
Pension scheme has diversified investment in different asset classes	17.8	54.2	24.6	2.5	1.0	3.8559	0.76544
Return on investment has increased over the past five years	11.0	32.2	37.3	11.9	7.6	3.2712	1.05944
Pension scheme has been able to mitigate risks associated with investments	6.8	23.9	45.3	21.4	2.6	3.1111	0.90761

The findings show moderate financial performance perceptions, with 66.1% of respondents agreeing that schemes recorded higher returns on assets over the past five years (mean=3.6441), though 21.2% remained neutral. Regarding diversification, 72% acknowledged investment across different asset classes (mean=3.8559), consistent with Doe (2019) who highlighted how diversification across equities, bonds, and real estate stabilizes returns and improves portfolio performance. However, only 43.2% agreed that ROI has increased over the past five years, with 37.3% remaining neutral (mean=3.2712, SD=1.05944), indicating uncertainty about recent performance trends. Risk mitigation showed the weakest consensus, with only 30.7% agreeing that schemes successfully mitigated investment risks while 45.3% were neutral and 24.0% disagreed (mean=3.1111), revealing significant concerns about risk management effectiveness, contrary to Cooley, Hubbard, and Walz (2019) who demonstrated that diversification helps pension schemes avoid significant losses and achieve consistent performance.

Table 4: Annual Average ROI for Voluntary Pension Schemes (2019–2023)

Year	Estimated Average ROI (%)
2019	6.5
2020	7.0
2021	11.6
2022	8.0
2023	6.6

The financial performance of voluntary pension schemes over 2019–2023 showed considerable fluctuations, with ROI starting at 6.5% in 2019, improving slightly to 7.0% in 2020, peaking at 11.6% in 2021 likely due to favorable investment conditions and strategic portfolio allocation, then declining to 8.0% in 2022 and further to 6.6% in 2023, highlighting persistent challenges in maintaining consistent financial performance despite growth in assets under management.

4.3 Regression Analysis

The study employed regression analysis to examine the mediating effect of strategic optimal portfolio mix on the relationship between portfolio diversification and financial performance. Diagnostic tests confirmed model assumptions, with the Breusch-Pagan test indicating homoscedasticity (LM=7.41, $p=0.115$ for portfolio diversification; LM=8.21, $p=0.114$ for the mediation model).

Table 5: Model Summary, ANOVA, and Regression Coefficients

Model Summary						
R = 0.967						
ANOVA	Sum of Squares	df	Mean Square	F	Sig.	
Regression	85.495	2	42.748	890.573	0.000	
Residual	5.994	115	0.052			
Total	91.489	117				
Coefficients		B	Std. Error	Beta	t	Sig.
Constant		0.083	0.039		2.134	0.036
Portfolio Diversification		0.975	0.107	0.980	9.116	0.000
Strategic Optimal Portfolio Mix		0.293	0.020	0.240	14.550	0.000

The regression model was statistically significant ($F=890.573$, $p<0.05$), explaining 93.5% of variance in financial performance ($R^2=0.935$). The model equation is: Financial Performance = $0.083 + 0.975(\text{Portfolio Diversification}) + 0.293(\text{Strategic Optimal Portfolio Mix})$. Portfolio diversification demonstrated a strong positive effect ($\beta=0.975$, $t=9.116$, $p<0.05$), indicating that a one-unit increase in portfolio diversification leads to a 0.975 increase in financial performance. Strategic optimal portfolio mix showed a significant mediating effect ($\beta=0.293$, $t=14.550$, $p<0.05$), meaning that a one-unit increase in strategic optimal portfolio mix results in a 0.293 increase in financial performance. These findings confirm that strategic optimal portfolio mix significantly mediates the relationship between portfolio diversification and financial performance, demonstrating that optimal asset allocation enhances returns while mitigating risks and creating balanced, robust portfolios.

5.0 Conclusion

The study concluded that strategic optimal portfolio mix significantly mediates the relationship between portfolio diversification and financial performance of private voluntary pension schemes in Kenya. Adopting a diversified investment approach emerged as not merely a risk management technique but a core strategy that enhances financial resilience and sustainability. Pension schemes that blend high-risk and low-risk assets are better positioned to achieve balance between risk and return, ultimately leading to more stable and predictable financial performance. The findings demonstrate that while diversification across asset classes reduces portfolio risk, it is the strategic optimization of the portfolio mix through regular rebalancing and disciplined investment processes that translates diversification efforts into superior financial outcomes, ensuring schemes meet their long-term obligations to members.

6.0 Recommendations

Based on the findings, pension schemes should invest in continuous professional development of finance officers through training programs that enhance capacity to assess risk, diversify investments, and apply portfolio optimization techniques effectively. Pension schemes should adopt formal policies encouraging diversification across asset classes, with structured frameworks for asset allocation that are regularly reviewed and adjusted to serve as safeguards against market volatility and enhance return predictability. Additionally, given that 66.1% of schemes do not facilitate training for finance officers, management should prioritize establishing systematic capacity-building initiatives to ensure investment decisions are compliant with regulatory standards while remaining strategically sound and informed by market realities.

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