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**INFLUENCE OF PENSION FUND MANAGEMENT PRACTICES ON INVESTMENT PERFORMANCE OF
INDIVIDUAL PENSION SCHEMES IN KENYA**

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INFLUENCE OF PENSION FUND MANAGEMENT PRACTICES ON INVESTMENT PERFORMANCE OF INDIVIDUAL PENSION SCHEMES IN KENYA

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ABSTRACT

This study intended to investigate the influence of pension fund management practices on investment performance of individual pension schemes in Kenya. The study employed explanatory survey research design and targeted 108 respondents which comprised of fund managers/fund administrators, actuaries/ fund scheme advisors and auditors from 36 individual pension schemes in Kenya; from where a census method was used to select all the 108 respondents. Primary data was collected by means of self-administered structured questionnaires. Data collected from the field was coded, cleaned, tabulated and analyzed using both descriptive and inferential statistics with the aid of specialized Statistical Package for Social Sciences (SPSS) version 24 software. Both descriptive and inferential statistics showed that all the study's independent variables (financing management practice, investment management practice, financial control practice, asset base management practice) significantly influence investment performance of individual pension schemes in Kenya. The study concluded that one; well implemented financing management practices such as prudent financing approaches, cost management tactics, capital administration significantly influence investment performance of individual pension schemes; two, asset base management practices significantly influence investment performance of individual pension schemes in Kenya; only if mean asset base and its investment yield are well intertwined. The study recommended that one, fund and administrative managers of individual pension schemes should have prudent financial control practices while factoring in administrative costs in pension schemes so as to guarantee their significant influence on investment performance; two, fund and administrative managers of individual pension schemes should ensure effective utilization of mean asset base and investment yields so as to realize their significant contribution to investment performance.

Key Words: Fund Management, Investment Management, Financial Control, Asset Base Management

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INTRODUCTION

Pension system plays an important role in increasing savings rate in the economy and to transfer idle funds in to the financial system, and thus provides the efficient allocation of the resources. Considering that domestic savings amount/gross domestic product (GDP) ratio is an important indicator for the sustainable growth of the national economy, in developing countries where the level of saving rates is very low, the importance of private or individual pension system is increasing even further. Pension fund assets in countries have reached a significant percentage of GDP (Ramasamy & Yeung, 2013).

Pension schemes all over the world may be funded or non-funded. In a funded scheme (the focus of this study) the working population makes contributions into a pension fund which, during the accumulation phase, grows in value up to retirement. After retirement, the fund enters the decumulation phase and pays out a pension to the retired pensioners for the remainder of their lives (Davis & Steil, 2001).

Pension funds are relatively important in the UK and the US; for instance, the percentage of UK corporate equity owned by institutional investors, confirms that pension funds are major investors in the equity markets, owning about 40 per cent of the UKs equity sector arising from perceived improvement in investment performance of pension schemes (Franks et al., 2013).

Investment performance of individual pension schemes in Kenya has been majorly been affected by occupational pension schemes, thus fights for customers from the informal sector. According to RBA regulations, individual schemes have been set up to cater for employees whose employers have not set up retirement benefits schemes, or those in the informal sector. Where the number of employees is very small, it may not be financially viable to run an occupational scheme, in which case the employer may opt to contribute to an individual scheme on behalf of the employees (Mutuku, 2011).

In Kenya individual pension (retirement benefits) schemes are controlled by Retirement Benefits Authority (RBA) which is a regulatory body under the National Treasury, established under Retirement Benefits Act.

According to RBA reports (2019), retirement benefits industry controls over Khs 800 billion worth of assets through over 1200 occupational pension schemes, 36 individual retirement benefits schemes and the National Social Security Fund (NSSF). These schemes together with the Civil Service Pension Scheme provide coverage of 18 % of Kenyas labour force, mostly those in formal employment. In terms of membership, the NSSF has around 67% of the total, followed by the Civil Service Pension Scheme with 22% and occupational schemes taking up 11%. In terms of assets, however, the occupational schemes contribute 61% of total industry assets followed by NSSF with 38%. The Civil Service Pension Scheme is non-funded (RBA reports, 2019).

Statement of the problem

Pension system plays a significant role in increasing savings rate in the economy by transferring idle funds in to the financial system, and boosting domestic savings amount/gross domestic product (GDP) ratio which is an important indicator for the sustainable growth of the national economy, in developing countries where the level of saving rates is very low; thus, the importance of private or individual pension system which is really increasing but their investment performance has been questioned (Ramasamy & Yeung, 2013).

Further, in terms of investment performance of pension schemes, many researches Acikgoz, Uygurturk and Korkmaz (2015), have focused on institutional investors without considering individual or private pension schemes whose aim is to get higher returns from the funds while at the same time benefitting contributors. That is, Investment returns is the major factor that will determine the investment performance of pension funds to provide retirement income to their

members and ability to deliver adequate future pension.

In Kenya, Odundo, Njoroge, Mutuku and Chirchir (2002). (2002) studied on pension sector reforms and found that pension fund management really influenced investment performance but however, the study did really specify which pension fund management practice had significant influence on investment performance, a gap that will be filled by this study. Mutua (2003) also found that one of the major problems of individual pension schemes in Kenya was poor investments whereby funds were placed in low yielding and poorly diversified schemes resulting in poor returns and inability to even meet the scheme administration costs.

More so, there are conflicting results on what really determines investment performance of individual pension funds (Shah, 2014), with little empirical evidence on investment performance of individual pension schemes in Kenya that have reported dismal performance, a gap that this study endeavored to fill by investigating the influence of fund management practice, investment management practice, financial control practice and asset base management practice on investment performance of individual pension schemes in Kenya.

Objectives of the Study

The general objective of the study was to examine influence of pension fund management practices on investment performance of individual pension schemes in Kenya. The specific objectives were;

- To determine the influence of financing management practice on investment performance of individual pension schemes in Kenya.
- To assess the influence of investment management practice on investment performance of individual pension schemes in Kenya.
- To examine the influence of financial control practice on investment performance of individual pension schemes in Kenya.

- To examine the influence of asset base management practice on investment performance of individual pension schemes in Kenya.

The research was guided by the following hypotheses

- H_{01} : There is no significant relationship between financing management practice and investment performance of individual pension schemes in Kenya.
- H_{02} : There is no significant relationship between investment management practice and investment performance of individual pension schemes in Kenya.
- H_{03} : There is no significant relationship between financial control practice and investment performance of individual pension schemes in Kenya.
- H_{04} : There is no significant relationship between asset base management practice and investment performance of individual pension schemes in Kenya.

LITERATURE REVIEW

Theory of life cycle consumption

This theory was proposed by Modigliani and Brumbergs (1954) and is a theory of spending based on the idea that people make intelligent choices about how much they want to spend at each age, limited only by the resources available over their lives. By building up and running down assets, working people can make provision for their retirement, and more generally, tailor their consumption patterns to their needs at different ages independent of their income at each age (Davis & Steil, 2011).

Theory of life cycle consumption further provides that the wealth of nations gets passed around; the very young have little wealth, middle-age people have more, and peak wealth is reached just before people retire. It therefore implies that people need to consciously plan for their retirement so that they will not live affluently through their golden years, and then retire only to sell off their assets to

provide themselves food, housing, and recreation (Modigliani & Brumbergs, 1954).

Risk aversion theory

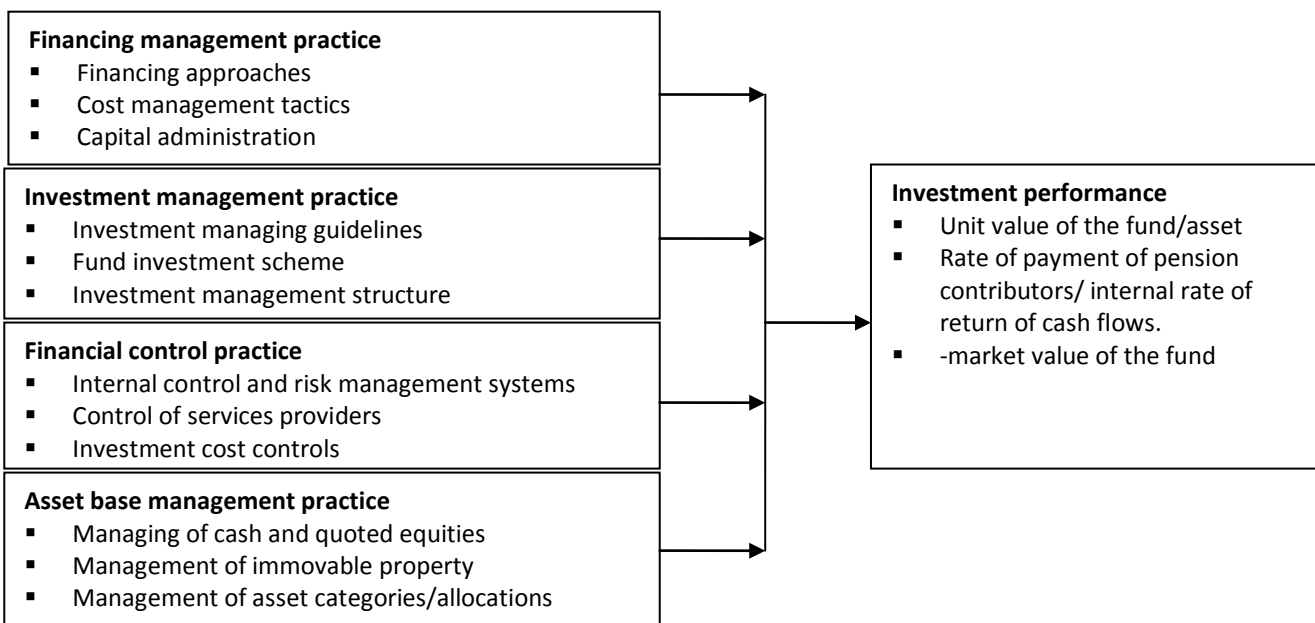
This risk aversion theory by Fischer (1972) asserts that risk aversion is an investors general desire to avoid participation in risky behavior or, in this case, risky investments. That is Investors typically wish to maximize their return with the least amount of risk possible. When faced with two investment opportunities with similar returns, good investor will always choose the investment with the least risk as there is no benefit to choosing a higher level of risk unless there is also an increased level of return. Insurance is a great example of investors risk aversion. Given the potential for a car accident, an investor would rather pay for insurance and minimize the risk of a huge outlay in the event of an accident (Fischer, 1972).

Agency theory

Stephen Ross and Barry Mitnick in 1970s came up with the agency theory which states that the

principal-agent problem occurs when one person or entity (the agent) is able to make decisions and or take actions on behalf of or that impact, another person or entity (the principal), (Millichamp & Taylor, 2008).

The basic premise of the principal - agent theory is that there is a principal who delegates a task to the agent, who performs the task on the principals behalf. Whenever the interests of the two entities are misaligned, the principal - agent problem is observed. This misalignment of interests emanates from two distinct sources: the principals inability to monitor the agent and the agents possession of a superior information set (Shah, 2014). It is also recognized that the contracting parties could change their behavior after the contract has been entered into.



Independent variables

Dependent variable

Figure 1: Conceptual Framework

Empirical Review

Nazir and Nawaz (2010) investigated the role of various factors in determining the mutual funds

growth in Pakistan. The results have reported that the assets turnover, the family proportion, and the expense ratio are positively leading the growth of

the mutual funds, in contrast with the fund management fee and the risk adjusted returns which are negatively associated with the mutual funds growth.

In a study done in Kenya, Oluoch (2013) found that the relationship between fund value management and returns among pension funds in Kenya is not very strong. Therefore, improving the value of pension funds cannot be used as leverage for higher profitability. In addition, improvement of fund value management does not necessarily translate into higher returns.

Clark and Monk (2012) analyzed case studies of the largest institutional investors among pension funds and sovereign wealth funds from around the world in order to develop principles and policies for investment management and generally found conflicting results but revealing significant and non-significant influence of investment management on investment performance.

MacIntosh and Scheibelhut (2012) benchmarking study of a sample of 19 large pension schemes drawn from across six members of the G20 countries focused on prevalence, reasons for adoption and outcomes of different investment management structures. While the results showed a significant influence of investment structures on general performance of pension schemes, the researcher suggested an empirical inquiry into investment performance of individual pension funds, a gap that will be addressed by this study.

Adeoti, Gunu and Tsado (2012) carried out a study to evaluate the factors that determine investment of Pension Funds in Nigeria using principal component. Economic, risk and security of real estate factors were identified as the main determinants of pension fund investment. The study established that interest rate, and internal control system was not vital in determining investment of pension funds in Nigeria. The study recommended that pension fund managers ought to develop good financial control systems of

mitigating on the enormous risks they face in their duty as investment managers.

Were (2015) studied on the relationship between asset base management and performance of pension funds and found that asset allocation is critical in determining whether asset allocations as selected by Trustees of pension schemes is critical in increasing pensioners wealth in Kenya. The study recommended that given that the primary reason for the establishment of pension schemes is to alleviate old age poverty for their members, it is paramount that the pension funds be invested in manner that is consistent with the spirit of increased investment performance of the fund.

METHODOLOGY

The study employed explanatory survey research design. The target population of the study was 108 respondents which comprised of fund managers/fund administrators, actuaries/ fund scheme advisors and auditors of individual pension schemes in Kenya, which were 3 respondents from 36 pension schemes totals to 108 respondents.

Primary data was collected by means of self-administered structured questionnaires. These questionnaires were structured and designed in a multiple-choice format. Data collected from the field was coded, cleaned, tabulated and analyzed using both descriptive and inferential statistics with the aid of specialized Statistical Package for Social Sciences (SPSS) version 24 software.

FINDINGS

The responses were based on Likert scale with values ranging from 5 to 1; that is; 5=Strongly Agree, 4=Agree, 3= Uncertain, 2=Disagree and 1= Strongly Disagree. The results were presented in the table form showing frequencies of responses as per each statement and its corresponding percentage score in brackets, means and standard deviations.

Financing management and investment performance

These were descriptive statistics on the influence of financing management on investment performance as summarized in table 1.

Table 1: Descriptive statistics: Funding management practice

Statement	5	4	3	2	1	mean	Std.dev
1. There effective financing approaches that boost investment performance	11 (12.4)	49 (55.1)	6 (6.7)	13 (14.6)	10 (11.2)	3.47	0.813
2. There are efficient cost management tactics that influence investment performance	12 (13.5)	52 (58.4)	5 (5.6)	11 (12.4)	9 (10.1)	3.49	0.839
3. The way the firm administers varied sources of capital influences investment performance	10 (11.2)	50 (56.2)	7 (7.9)	14 (15.7)	8 (9.0)	3.39	0.981
4. The company utilizes diverse funding sources to boost investment performance	11 (12.4)	49 (55.1)	4 (4.4)	17 (19.1)	8 (9.0)	3.54	0.883
5. Generally, effective funding management practices influence investment performance	13 (14.6)	53 (59.6)	5 (5.6)	9 (10.1)	9 (10.1)	3.63	0.961
Valid listwise 89							
Grand mean = 3.504							

From table 1, most respondents agreed (55.1%) and strongly agreed (12.4%) that there effective financing approaches that boost investment performance, while a 58.4% also agreed that there are efficient cost management tactics that influence investment performance, implying that effective financing approaches and efficient cost management tactics really influence investment performance.

More so, 56.2% and 11.2% of respondents agreed and strongly agreed respectively that the way the firm administers varied sources of capital influences investment performance, implying that varied sources of capital minimize risks associated with one source of capital.

Further, most respondents agreed (55.1%) that the company utilizes diverse funding sources to boost

investment performance and in summary, most respondents agreed (59.6%) that generally, effective financing management practices influence investment performance.

This is supported by OECD. (2017) study on investment performance in private pension schemes in France found a significant influence of fund management on investment performance and recommended more prudent fund management practices in individual pension schemes so as guarantee both the fund manager and contributor on positive return on investment.

Investment management and investment performance

There were descriptive statistics on the influence of investment management practices on investment performance as summarized in table 2.

Table 2: Descriptive statistics: Investment management practice

Statement	5	4	3	2	1	Mean	Std.dev
1. The firm has effective investment managing guidelines to check on investment performance	9 (10.1)	48 (53.8)	7 (7.9)	18 (20.2)	7 (7.9)	3.44	0.995
2. The firm has viable fund investment scheme that attracts more return on investment	10 (11.2)	49 (55.1)	5 (5.6)	19 (21.4)	6 (6.7)	3.48	0.864
3. The firms investment management structure is designed to boost investment performance	11 (12.4)	52 (58.4)	6 (6.7)	11 (12.4)	9 (10.1)	3.71	0.958
4. The firms investment strategies influence investment performance	11 (12.4)	51 (57.3)	5 (5.6)	14 (15.7)	8 (9.0)	3.66	0.906
5. Generally, efficient investment management	13	49	7	10	10	3.49	0.895

practices influence investment performance (14.6) (55.1) (7.9) (11.2) (11.2)

Valid listwise 89

Grand mean = 3.556

From table 2, 53.8% and 10.1% of respondents agreed and strongly agreed respectively that the firm had effective investment managing guidelines to check on investment performance, while a further 55.1% agreed that the firm has viable fund investment scheme that attracts more return on investment, implying that effective investment guidelines and viable fund management scheme have a positive bearing on investment performance.

More so, 58.4% of respondents agreed that the firms investment management structure is designed to boost investment performance, while 57.3% of respondents agreed that the firms investment strategies influence investment performance, implying that well-structured and crafted investment management tactics really boost investment performance of pension schemes.

In summary, 55.1% and 14.6% of respondents agreed and strongly agreed respectively that generally, efficient investment management practices influence investment performance. This is supported by Hlavac (2011) who studied on the comparison of financial performance of the Czech voluntary private pension scheme with five other reformed private pension schemes in the region of Central Eastern Europe i.e. Bulgaria, Croatia, Hungary, Poland and Slovak Republic. Using periodic scheme returns covering the last ten years, the study found a significant relationship between investment management practice and investment performance of private pension schemes in these countries.

Financial control and investment performance

There were descriptive statistics on the influence of financial control practices on investment performance as summarized in table 3.

Table 3: Descriptive statistics: Financial control practice

Statement	5	4	3	2	1	mean	Std.dev
1.The firm has adopted effective financial controls to boost investment performance	11 (12.4)	52 (58.4)	7 (7.9)	11 (12.4)	8 (9.0)	3.57	0.858
2. Effective control of services providers really influence investment performance	10 (11.2)	47 (52.9)	9 (10.1)	17 (19.1)	6 (6.7)	3.45	0.867
3.well monitored investment cost controls influence investment performance	7 (7.9)	46 (51.7)	10 (11.2)	19 (21.3)	7 (7.9)	3.38	0.894
4. There are well-organized internal control and risk management systems to check investment performance	8 (9.0)	48 (54.0)	8 (9.0)	16 (18)	9 (10.1)	3.46	0.945
5. Generally, well-organized financial control practices influence investment performance	7 (7.9)	51 (57.3)	6 (6.7)	15 (16.9)	10 (11.2)	3.52	0.941

Valid listwise 89

Grand mean =3.476

From table 3, most respondents agreed (58.4%) and strongly agreed (12.4%) that the firm has adopted effective financial controls to boost investment performance; while a further 52.9% of respondents agreed that effective control of services providers really influence investment performance, implying that effective financial controls and service

provision has a positive influence on investment performance.

Further, 51.7% of respondents agreed that well monitored investment cost controls influence investment performance while 54.0% of respondents agreed that there are well-organized internal control and risk management systems to check investment performance, implying that well

monitored investment controls and risk management system checks positively influence investment performance.

In summary, most respondents agreed (57.3%) and strongly agreed (7.9%) that generally, well-organized financial control practices influence investment performance. This is supported by Andonov et al. (2011) assertion that the economies of scale result from the greater bargaining power of larger pension funds and the relative advantage of

internalization and cost controls. That is, large pension funds can benefit from economies of scale by spreading financial costs over a bigger asset base.

Asset base management and investment performance

There were descriptive statistics on the influence of asset base management practices on investment performance as summarized in table 4.

Table 4: Descriptive statistics: Asset base management practice

Statement	5	4	3	2	1	Mean	Std.dev
1. Efficient managing of cash and quoted equities influence investment performance	10 (11.2)	50 (56.2)	7 (7.9)	12 (13.5)	10 (11.2)	3.51	0.886
2. Good management of immovable property influence investment performance	6 (6.7)	48 (54.0)	8 (9.0)	19 (21.3)	8 (9.0)	3.43	0.862
3. Effective management of asset categories influence investment performance	8 (9.0)	47 (52.8)	10 (11.2)	18 (20.3)	6 (6.7)	3.29	0.775
4. Effective asset allocations influence investment performance	9 (10.1)	49 (55.1)	9 (10.1)	12 (13.5)	10 (11.2)	3.49	0.824
5. Generally, effective asset base management practices influence investment performance	10 (11.2)	50 (56.2)	6 (6.7)	16 (18)	7 (7.9)	3.59	0.879
Valid listwise 89							
Grand mean =3.462							

From table 4, most respondents agreed (56.2%) that efficient managing of cash and quoted equities influence investment performance, while 54.0% and 6.7% of respondents agreed and strongly agreed that good management of immovable property influence investment performance.

More so, 52.8% and 9.0% of respondents agreed and strongly agreed respectively that effective management of asset categories influence investment performance, while a further 55.1% of respondents agreed that effective asset allocations influence investment performance, implying that effective asset allocations and management of asset categories really influence investment performance.

On overall response, most respondents agreed (56.2%) that generally, effective asset base management practices influence investment performance. This is supported by Ardon (2006) study carried out in Massachusetts which found that smaller pension systems in terms of asset base had higher costs associated with their administration and management. The smaller funds recorded administrative costs equal to 0.78% of their asset values whilst the bigger funds recorded administrative costs of 0.44% of the asset values (Ardon, 2006). Further, very small pension funds are therefore uneconomical to operate and will result in low levels of efficiency.

Inferential statistics

Table 5: Correlations

		Financing Management	Investment Management	Financial Control	Asset base management	Investment performance
Financing Management	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	89				
Investment Management	Pearson Correlation	.499**	1			
	Sig. (2-tailed)	.000				
	N	89	89			
Financial Control	Pearson Correlation	.574**	.610**	1		
	Sig. (2-tailed)	.000	.000			
	N	89	89	89		
Asset base management	Pearson Correlation	.587**	.483**	.465**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	89	89	89	89	
Investment performance	Pearson Correlation	.723**	.736**	.751**	.659**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	89	89	89	89	89

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

Table 6: Multiple regression results

Model Summary										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics				Sig. F Change
						F Change	df1	df2		
1	.873 ^a	.761	.750	.52098	.761	67.018	4	84		.000
ANOVA ^b										
Model		Sum of Squares	Df	Mean Square	F					Sig.
1	Regression	72.759	4	18.190	67.018					.000 ^a
	Residual	22.799	84	.271						
	Total	95.558	88							

a. Predictors: (Constant), Asset base management, Financial Control, Investment Management, Financing Management

b. Dependent Variable: Investment performance

Multiple regression analysis in table 6 showed the multiple regression results of the combined influence of the study's independent variables (financing management, investment management, financial control, asset base management). The models R squared (R^2) is 0.761 which showed that the study explained 76.1% of variation in investment performance of individual pension

schemes in Kenya, while other factors not in the conceptualized study model accounted for 23.9%, hence, it was a good study model.

Furthermore, Analysis of Variance (ANOVA) showed the mean squares and F statistics significant ($F = 67.018$; significant at $p < .001$), thus confirming the fitness of the model and also implied that the study's independent variables (financing management, investment management, financial control, asset base management) have significant variations in their contributions to investment performance of individual pension schemes in Kenya.

Finally, the values of unstandardized regression coefficients with standard errors in parenthesis indicated that all the study's independent variables (financing management; $\beta = 0.246$ (0.073) at $p < 0.05$, investment management; $\beta = 0.274$ (0.066)

at $p < 0.01$; financial control; $\beta = 0.218$ (0.084) at $p < 0.05$, asset base management; $\beta = 0.221$ (0.063) at $p < 0.05$ significantly influenced investment performance of individual pension schemes in Kenya (dependent variable).

In this regard, the study's final multiple regression equation was;

$$(v) y = 0.597 + 0.246X_1 + 0.274X_2 + 0.218X_3 + 0.221X_4$$

Where;

y = investment performance of individual pension schemes in Kenya.

X_1 = financing management

X_2 = investment management

X_3 = financial control

X_4 = asset base management

Table 7: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	.597	.199			2.997	.004
Financing Management	.246	.073	.266		3.341	.001
Investment Management	.274	.066	.325		4.154	.000
Financial Control	.218	.084	.229		2.579	.012
Asset base management	.221	.063	.239		3.487	.001

a. Dependent Variable: Investment performance

Hypothesis testing

First, **study hypothesis one (H₀₁)** stated that there is no significant relationship between financing management practice and investment performance of individual pension schemes in Kenya. Multiple regression results indicate that financing management practice has significant influence on investment performance of individual pension schemes in Kenya ($\beta = 0.246$ (0.073) at $p < 0.05$). **Hypothesis one was therefore rejected.** The results indicated that a single improvement in financing management practice will lead to 0.246 unit improvement in investment performance of individual pension schemes in Kenya.

Secondly, **study hypothesis two (H₀₂)** stated that there is no significant relationship between investment management practice and investment performance of individual pension schemes in Kenya. Multiple regression results indicated that investment management practice has significant influence on investment performance of individual pension schemes in Kenya ($\beta = 0.274$ (0.066) at $p < 0.05$). **Hypothesis two was therefore rejected.** The results indicated that a single improvement in investment management practice will lead to 0.274 unit improvement in investment performance of individual pension schemes in Kenya.

Thirdly, **study hypothesis three (H₀₃)** stated that there is no significant relationship between financial control practice and investment performance of individual pension schemes in Kenya. Multiple regression results indicated that financial control practice has significant influence on investment performance of individual pension schemes in Kenya ($\beta = 0.218$ (0.084) at $p < 0.05$). **Hypothesis three was therefore rejected.** The results indicate that a single improvement in financial control practice will lead to 0.218 unit improvement in investment performance of individual pension schemes in Kenya.

Fourthly, **study hypothesis four (H₀₄)** stated that there is no significant relationship between asset base management practice and investment performance of individual pension schemes in Kenya. Multiple regression results indicated that asset base management practice has significant influence on investment performance of individual pension schemes in Kenya ($\beta = 0.221$ (0.063) at $p < 0.05$). **Hypothesis four was therefore rejected.** The results indicate that a single improvement in asset base management practice will lead to 0.221 unit improvement in investment performance of individual pension schemes in Kenya.

CONCLUSIONS AND RECOMMENDATIONS

First, the study concluded that well implemented financing management practices such as prudent financing approaches, cost management tactics, capital administration significantly influence investment performance of individual pension schemes. Secondly, investment management practices such as; investment managing guidelines, fund investment scheme, investment management structure significantly influence investment performance of individual pension schemes. Thirdly, financial control practices such as internal control

and risk management systems, control of services providers, investment cost controls significantly influence investment performance of individual pension schemes if administrative costs are well factored in. Fourthly, asset base management practices such as; managing of cash and quoted equities, management of immovable property, management of asset categories and allocations significantly influence investment performance of individual pension schemes in Kenya; only if mean asset base and its investment yield are well intertwined.

The study recommended that, First fund managers of individual pension schemes should devise viable financing rules and regulations that can enhance investment performance of pension schemes. Secondly, fund managers of individual pension schemes should enact feasible investment managing guidelines; fund investment schemes and investment management structure than can boost investment performance of pension schemes. Thirdly, fund and administrative managers of individual pension schemes should have prudent financial control practices while factoring in administrative costs in pension schemes so as to guarantee their significant influence on investment performance. Fourthly, fund and administrative managers of individual pension schemes should ensure effective utilization of mean asset base and investment yields so as to realize their significant contribution to investment performance.

Areas for further research

First, another study can evaluate the influence of mean asset base and investment yields on investment performance of pension schemes. Secondly, a longitudinal study can be done on private pension schemes using time series data for a period of 5 years to assess efficacy of fund management practices on investment performance.

REFERENCES

- Adeoti, O.; Gunu.U. & Tsado, E (2012). Determinant of pension fund investment in Nigeria: The critical factors international. *Journal of Human Resources Studies*, 2(4).
- Aguirre, M., & McFarland, B. (2016). 2015 Asset Allocations on Fortune 1000 Pension Plans. *Willis Towers Watson Insider*, 26(12), 1-8.
- Andonov R, Bauer, C and Cremers, G (2011). *Performance and Governance of Swiss Pension Funds*. Swiss Institute of Banking and Finance, Rosenbergstrasse.
- Andonov, A. (2011). *Pension fund asset allocation and performance*. Research Paper
- Ardon, K. (2006). *Leaving Money on the Table: The 106 Pension Systems of Massachusetts*. Pioneer Institute for Public Policy Research.
- Bauer, B Cremers, J and Frehen, V (2010). Fund size and performance in a market crowded with many small funds. *Asia-Pacific Journal of Financial Studies*, 42(2), 340–372.
- Bikker, J., & Dreu, J. (2009). Operating costs of pension schemes: The impact of scale, governance and plan design. *Journal of Pension Economics and Finance*. (8)63-89.
- Blake, D., Rossi, A.G., Timmermann, A., Tonks, I., & Wermers, R. (2013). Decentralized investment management: Evidence from the pension fund industry. *The Journal of Finance*, 68(3), 1133-1178.
- Blake, D., Timmermann, A., Tonks, I., & Wermers, R. (2010). Decentralized investment management: evidence from the pension fund industry. Pensions Institute Discussion Paper No. 0914.
- Boon, L., Briere, M., & Rigot, S. (2017). Regulation and Pension Fund Risk-Taking. ISSN 1923-4023
- Chemla, G. (2005). The Determinants of Investment in Private Equity and Venture Capital: Evidence from American and Canadian Pension Funds. E-ISSN 1923-4031. Sciedu Press.
- Clark, G. L., & Monk, A. H. B. (2012). Principles and policies for in-house asset management. SSRN Electronic Journal, 1-11.
- Cooper, D., & Schinder, P. (2007). *Business Research methods* (8th Ed.). New Delhi: tata McGraw hill
- Davis, E.P and Steil B (2011) *Institutional Investors* (MIT Press)
- Del Guercio and Tkac (2012) The determinants of the flow of funds of managed portfolios: mutual funds vs pension funds, *Journal of Financial and Quantitative Analysis*, vol. 49.
- Dyck A and Pomorski, L (2011). *Size and Performance in Pension Plan Management*. *Organization Science*, 15 (3).
- EBRI 2007). *Life Cycle Finance and the Design of Pension Plans*. Boston University School of Management. Research Paper Series No. 2009-5.
- Faktum, F (2009). Retirement and the evolution of pension structure. *Journal of Human Resources Management*. XL.2
- Franks, J., C. Mayer and L.C. da Silva (2013) *Asset Management and Investor Protection: An International Analysis* (Oxford University Press).
- Fan, J. P., Wong, T. J., & Zhang, T. (2013). Institutions and organizational structure: The case of state-owned corporate pyramids. *Journal of Law, Economics, and Organization*, 29(6), 1217-1252.

- Grinblatt, M. and Titman, S.D. (2013) Performance measurement without benchmarks: an examination of mutual fund returns, *Journal of Business*, 105(3).
- Hair, J. F, Black, W, C, Babin, B. J, & Anderson, R. E. (2006). *Multivariate data analysis*. 7th edition Prentice Hall NY.
- Hlavac, J. (2011). Financial performance of the Czech private pension scheme: Its current position and the comparison with other CEE countries. IES Working Paper 9/2011. IES FSV. Charles University.
- Jacobsson, R., & Jacobsson, S. (2012). The emerging funding gap for the European Energy Sector—Will the financial sector deliver? *Environmental Innovation and Societal Transitions*, 5, 49-59.
- Kagunda, T. (2011). Asset Allocation by Fund Managers and the Financial Performance of Assets in Kenya. Unpublished MBA Project, University of Nairobi.
- Kakwani, N., Sun, H., & Hinz, R. (2006). Old-Age Poverty and Social Pensions in Kenya. International Poverty Center, Working Paper No. 24.
- Kinoti, K (2009). An empirical investigation of the relationship between selected macroeconomic factors and pension funds. (Masters dissertation, University of Nairobi).
- Kiplagat, M.K., (2014). The Effect of Asset Allocation and Performance of Pension Funds in Kenya, Unpublished MBA Project, University of Nairobi.
- Kothari, C.R., (2007), *Research Methodology: Methods and Techniques*, New Age International Publishers.
- MacIntosh, J., & Scheibelhut, T. (2012). How large pension funds organize themselves: Findings from a unique 19-fund survey. *Rotman International Journal of Pension Management*, 5(1), 34–40.
- Milburn-Pyle (2004). The Role of Pension Funds in Capital Market Development. GRIPS Discussion Paper 2017.
- Millichamp, A. H., & Taylor, J. R. (2008). *Auditing* (9th ed.). Book power.
- Modigliani, F. & Brumberg, R. H. (1954). Utility analysis and the consumption function: an interpretation of cross-section data, (In Kenneth K. Kurihara, ed.). *Post-Keynesian Economics*, New Brunswick, NJ. Rutgers University Press. 388–436.
- Mugenda, O, M. & Mugenda, A. G., (2008), *Research Methods: Quantitative and Qualitative Approaches*, ACTS Press
- Mugenda, O, M. & Mugenda, A. G., (2013), *Research Methods: Quantitative and Qualitative Approaches*, ACTS Press
- Mulgan, G., Reeder, N., Aylott, M., & Boshier, L. (2011). Social impact investment: the challenge and opportunity of social impact bonds. Young Foundation, 1-38.
- Mutua (2003). A Survey of the extent of Compliance with the Retirement Benefits Act by Retirement Benefits Schemes in Kenya. Unpublished masters project, University of Nairobi.
- Mutuku, N., (2011). Impact of Market Volatility on Kenyan Pension Scheme Long Term Asset Allocation and Risk Tolerance, RBA Research.
- Nazir, M. S., Nawaz, M. M., Anwar, W., & Ahmed, F. (2010). Determinants of Stock Price

- Nguthu (2009). The Effects of Asset Allocation on Retirement Benefits Fund Performance in Kenya, Unpublished MBA Project, University of Nairobi.
- Nurse, V (2008). Evaluating the Financial Performance of Pension Funds. OECD - IOPS Global Forum Rio de Janeiro.
- Odundo E, Njoroge S, Mutuku N, & Chirchir N. (2002). *Paper on Pension Sector Reform and Capital Markets Development in Kenya*. Retirement Benefits Authority, Nairobi.
- OECD. (2013). Annual Survey of Large Pension Funds and Public Pension Reserve Funds: Report on Pension Funds Long-term Investments. OECD Publishing.
- OECD. (2017). Assets in Private Pension Plans and Public Reserve Funds. In Pension at a Glance 2017: OECD Indicators, OECD Publishing, Paris.
- Oluoch, M. (2013) Determinants of performance of pension funds in Kenya. An MBA project submitted to the University of Nairobi.
- Peshkin (1990). Qualitative Inquiry in Education. Teachers College press. New York.
- Ramasamy, B. Matthew C.H. Yeung, (2013) Evaluating mutual funds in an emerging market: factors that matter to financial advisors, *International Journal of Bank Marketing*, Vol. 21.
- Retirement Benefits Authority (2017). Retirement benefits industry reports.2019. Nairobi, Kenya. Retrieved from www.rba.go.ke.
- Sandler, R. (2012). Medium and Long-Term Retail Savings in the UK: A Review, (HM Treasury).
- Shah, S. N. (2014). The principal – agent problem in finance (a summary). CFA Institute Research Foundation, 1–8.
- Sharpe, W. (2011). Investors and markets: portfolio choices, asset prices and investment advice. New Jersey: Princeton University Press
- Sievänen, R., Rita, H., & Scholtens, B. (2013). The Drivers of Responsible Investment: The Case of European Pension Funds. *Journal of Business Ethics*, 117, 137-151.
- Speed, C., D. Bowie, J. Exley, M. Jones, R. Mounce, N. Ralston, T. Spiers and H. Williams (2013) Note on the Relationship between Pension Assets and Liabilities, Staple Inn Actuarial Society,
- Stoughton, N. M. (2013) Moral Hazard and the Portfolio Management Problem, *Journal of Finance*, vol. 47,
- Sze, S (2008) A model for assessing future retirement adequacy of recent college graduates: Who is at risk of under-saving?. The Florida State University.
- The World Bank Economic Review*, 27(3), 514-541.
- Thomas, A. and I. Tonks. (2011). Equity performance of segregated pension funds in the UK. *Journal of Asset Management* 7 no. 3.
- Tonks, I. (2005) Performance Persistence of Pension Fund Managers, *Journal of Business*, vol. 78, no. 6.
- Torre, A. D. L., Feyen, E., & Ize, A. (2013). Financial development: structure and dynamics.
- Van Horne J.C & Wachowicz J.M Jr. (13th Ed). (2010). Fundamentals of Financial Management, 13th Ed. Pearson Education Limited.

Volatility in Karachi Stock Exchange: The Mediating Role of Corporate Dividend Policy. *International Research Journal of Finance and Economics* (55), 100-107.

Wanyama R. (2001). Pension Schemes and Provident Funds Investment Portfolios in Kenya: Implications of Investment Guidelines under Retirement Benefits Act (1997) and Regulations 2000. Unpublished MBA project, University of Nairobi.

Were M (2015). Role of Trustees in Investments of Retirement Benefits Schemes Assets Seminar, Norfolk Hotel