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Abstract

Purpose: Financial performance of pension funds in Kenya is wanting and thus, raises doubts whether they can be able to ensure access to regular or lump sum income for retirees. The pension should provide an adequate replacement income for the remaining life of the member or partner and remove the risk that the member outlives the resources. Poor performance of pension schemes jeopardizes this role and hence the retired people will not be able to have high degree of retirement income security. Therefore, this study sought to analyze the effect of total contribution on financial performance of pension schemes in Kenya.

Methodology: The target population for this study was all the registered occupational pension schemes in Kenya which according to the Retirement Benefits Authority report are 818 by the end of the year 2016. Random sampling method was applied to come up with the sample size of 261 registered occupational retirement benefits schemes. The study used secondary data which was analyzed using inferential and descriptive statistics.

Results: The study findings established that total contribution has a positive and significant effect on financial performance of pension schemes.

Policy recommendation: The study recommends that Pension Schemes in Kenya should invest more in systems to recruit more members to increase the total contributions as it positively affects financial performance.

Keyword: *Firm Size, Pension Fund, Return on Assets, Total Contribution*

Introduction

Pension schemes are institutional investors, who collect and invest funds contributed by sponsors and beneficiaries to provide for the future pension entitlements of the said beneficiaries. The main purpose of pension funds is to provide means for individuals to accumulate savings during their productive or working life in preparation for financing of the consumption needs when they retire from active employment (Mabbett, 2012). The performance of pension schemes is vital. There are several factors that affect the performance of pension funds. According Lungu (2011), the age of a contributor to a pension fund is very significant in determining its performance. If a pension fund has majority young contributors who have not attained retirement age, it implies that they will have more financial resources that can be channeled into investment activities thus earning more income.

The financial performance of pension funds in Kenya is wanting thus raising doubts whether they can be able to achieve their primary objective. Existing studies on pension schemes have not conclusively concluded on performance of pension schemes. Studies have been done on various contexts leaving knowledge gaps in the developing countries. Doğan (2013) conducted a study on performance of pension schemes in Turkey. Doğan (2013) focused on the effect of firm size on performance of pension schemes while Njoroge(2014) focused on the effects of firm characteristics only. Other factors affecting performance of pension schemes have not been given much consideration.

A study conducted by Mahfoudh (2013) which focused on the effects of regulations on financial performance of the retirement benefits funds in Kenya suggested that more research can widen the scope by considering other factors other than regulation. A study by Njoroge (2014) which focused on the effect of selected firm characteristics (firm size, leverage, firm age, liquidity, and board size) on firm financial performance as measured by return on assets suggested that other studies can be done using a combinations of factors other than firm size only and also using other measures of financial performance other than return on assets which they used. Based on these suggestions, the current study analyzed the factors influencing financial performance of pension schemes in Kenya. The objective of this study was to determine the influence of total contribution on financial performance of Pension Schemes in Kenya

Statement of the Problem

The financial performance of pension funds in Kenya is wanting thus raising doubts whether they can be able to achieve their primary objective (Erick, Murage & Kasomi, 2015). In 2014, for example, average pension return eased to 15.5 per cent from 21.4 per cent in 2013 (Forbes Survey, 2015). In addition the evidence on fund manager performance is that on average they do not add very much value over and above a passive strategy of investing in the market index. However, this average disguises the fact that some fund managers perform well, and others perform poorly.

In recent past, corporate governance has attracted much attention as the cause of underperforming pension schemes in Kenya because of either poor composition of board of trustees or lack of financial education of board members, Njeru (2014). However other pension schemes poor performance has been related to the investment strategy to the mix made in investment portfolio (Asebedo & Grable, 2004). Existing studies on pension schemes have not conclusively concluded on performance of pension schemes. Studies have been done on various contexts leaving knowledge gaps in the developing countries. Dogan (2013)

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Theoretical Review

This study is based on modern portfolio, finance and liquidity theories.

Modern Portfolio Theory

In this theory, a single asset or portfolio of assets is considered to be efficient if no other asset or portfolio of assets offers higher expected return with the same (or lower) risk or lower risk with the same (or higher) expected return. The portfolio theory provides a good basis for evaluating the selection and allocation of assets so that it can minimize risks (Njeru, 2014).
The theory is relevant to the study as it explains the one of the independent variables of the study which is firm size captured as total assets of the firm. Portfolio construction of the scheme assets can be successful only if the risk level of assets is considered. The study considers various assets that are interest bearing including bonds and equities which consist of pension schemes investments with various returns hence consists of portfolio hence the relevance of the portfolio theories to the study.

Finance Theory

The finance theory covers three main areas capital budgeting, capital structure and working capital management. Capital budgeting and capital structure decisions are mostly related with financing and managing long-term investments while working capital management concerns financial decisions about working capital related with financing and managing short-term investments that undertake both current assets and current liabilities simultaneously (Amu & Millegard, 2009). In most cases short-term financial management is referred to as working capital management. Efficiency in working capital management is important because it directly affects liquidity and performance of any firm (Megginson, 1997).
The finance theory is relevant to the study because it explains the effects of having poor working capital management policies which can either lead to poor revenue generation or shortages which affect the performance of pension schemes. Working capital touches on leverage and leverage is one of the variables of the study.

Liquidity Theory

Liquidity theory as a function of current assets and current liabilities is an important factor in determining working capital policies and indicates firm's capability of generating cash in case of need (Raheman & Nasr, 2007). The theory states that current ratio, acid-test and cash ratios as traditional measures of liquidity are incompetent because these balance sheet based measures cannot provide detailed and accurate information about effectiveness of working capital management. Formulas used for calculating these ratios consider both liquid and operating assets in common.

There is the use of ongoing liquidity measures in working capital management. Ongoing liquidity refers to the inflows and outflows of cash through the firm as the product acquisition, production, sales, payment and collection process takes place over time. As the firm's ongoing liquidity is a function of its cash conversion cycle, it would be more appropriate and accurate to evaluate effectiveness of working capital management by cash conversion cycle, rather than traditional liquidity measures.

The theory is relevant in understanding the process used by pension schemes in maintaining cash inflow and outflow through revenue generation, receivables and payments. This ensures that the organizations are capable of generating cash in case of an emergency. Organizations with poor liquidity management measures are likely to experience inconveniences in their operations when an urgent need for cash arises. This in turn affects the overall performance of the organization.

Conceptual Framework

A conceptual framework is a hypothesized model identifying the model under study and the relationship between the dependent and independent variables (Jose, Lancaster & Stevens, , 1996). The goal of a conceptual framework is to categorize and describe concepts relevant to the study and map relationships among them. The conceptual framework for this study is illustrated in Fig. 1

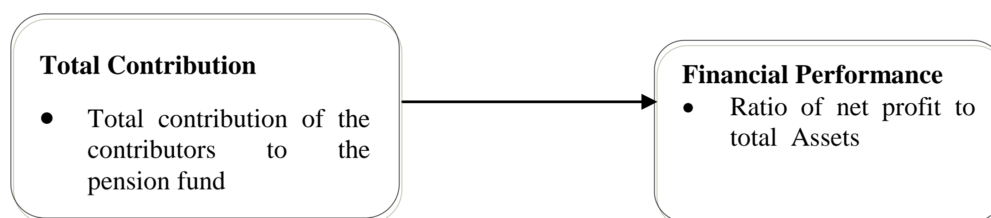

Fig. 1: Conceptual Framework

Empirical Literature Review

In a study to establish the determinants of performance of pension funds in Kenya, Njeru (2014) found a strong positive relationship between the ages of the investors measured by national life expectancy of Kenya indicating that a longer life expectation positively affected returns. However, weak positive relationships between returns and fund value, assets and

contributions of pensioners was weak which indicated that fund values, assets, and contributions were not utilized in the generation of income for the pension funds in Kenya.

A study was also conducted by Mahfoudh (2013) on the effects of regulations on financial performance of the retirement benefits funds in Kenya. The study revealed that there was a positive relationship between financial performance of retirement funds and liquidity of the scheme, the study also found that there was negative relationship between financial of retirement benefits fund and scheme expense ratio and financial distress or vulnerability. The study found that regulations affect the financial performance of retirement benefits funds in

A comparative study on the performance of pension plans was conducted by Oluoch (2013). The study established that the Sharpe ratio and attribution analysis show that, for those countries with enough information and data to adjust returns accordingly, privately managed pension funds have obtained a risk premium against short-term investment alternatives. It was also clear from the findings that pension funds have generally underperformed with respect to the hypothetical portfolio with the highest mean return for a given level of risk. The results also confirmed that in several countries investment restrictions have had a negative impact on performance.

Empirical literature review above indicates that demographic characteristics are among the most important determinants of financial performance of pension schemes. The phenomenon of population ageing, occurring in many developed countries across the world cannot be underrated since demographic change is a growing concern for both developed and developing countries. For instance, increasing longevity and reduced fertility threaten the sustainability of traditional pay-as-you-go pension systems. This is hence a matter that needs to be investigated.

Research Methodology

This study employed descriptive survey design. Descriptive research is conducted to describe the present situation, what people currently believe and what people are doing at the moment (Mugenda & Mugenda, 2003). Descriptive survey design is designed to collect primary or secondary data from a sample among various cross sections with a view of analyzing them statistically and generalizing the results to a population (Antolín, Payet, Whitehouse & Yermo, 2011). The target population for this study was all the registered pension schemes in Kenya according to the Revenue Benefits Authority report. There were 1232 registered pension schemes in Kenya by the end of the year 2016 . Out of this, 818 are occupational retirement benefits schemes. The current study focused on the occupational retirement benefits schemes. A simple definition of a sampling frame is a set of source materials from which the sample is selected (Olusola *et al*, 2013). The definition also encompasses the purpose of sampling frames, which is to provide a means for choosing the particular members of the target population that are to be interviewed in the survey (Kothari, 2004). The sampling frame of the study was data total contribution and financial performance. The sampling plan describes the sampling unit, sampling frame, sampling procedures and the sample size for the study. Random sampling method was applied to come up with the sample size, since the population is heterogeneous. This, according Mugenda and Mugenda (2012) ensures that each target is given an equal chance of selection. Generally, the larger the sample, the more likely the scores on the variables is representative of the population scores. At least 10 percent of the target population is important for a study (Bailey, 2008). However researchers have developed a rule of thumb in determining sample size. For example, Gall,

Gall & Borg (2014) argue that a minimum number of 15 in experimental research, 30 in correlational research and a minimum of 100 in survey research is adequate. If the target population is finite, the following formula by [21] was used to determine the sample size

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

Where:

S = Required Sample size

X = Z value (1.96 for 95% confidence level)

N = Population Size

P = Population proportion (expressed as decimal) (assumed to be 0.5 (50%)

d = Degree of accuracy (5%), expressed as a proportion (.05); It is margin of error

This gives a sample size 0f 261 occupational retirement benefits schemes registered under the Revenue Benefits Authority. This represents 23.7% of the target population. [22] Indicates that a sample of between 10% and 30% is appropriate for a study. The study used secondary data. The data collection instrument used was a data collection tool. Secondary data was collected on a five year period from the year 2012 to the year 2016. Data collected was on total contribution, retained earnings, firm size and performance of pension schemes. It was obtained from annual financial reports, reports, revenue benefits authority reports and capital market authority reports. Data analysis is the process of systematically applying statistical and/or logical techniques to describe and illustrate, condense and recap, and evaluate data (Bailey, 2008). The data was analyzed using descriptive and inferential statistics which were used to derive conclusions and generalizations regarding the population. Inferential analysis involved both correlation and regression analysis. The study adopted a hierarchical multivariate regression model where two regression models were established. The first regression model tested the effect of the independent variables only on the dependent variable. The second regression model had an inclusion of firm size. This guided the analysis of moderating effect of firm size.

Results

Descriptive analysis

This was done to establish the mean, standard deviation, minimum, maximum values of each variable recorded. The descriptive statistics are indicated in Table I.

Table I: Descriptive Analysis

	Total Contribution (Millions)
Mean	285.76
Median	246.00
Maximum	685.00
Minimum	17.00
Std. Dev.	172.86
Jarque-Bera	24.57
Probability	0.623

The total contributions by the members of the occupational schemes in Kenya, the study findings indicated that on average, the total contribution for all the 261 occupational schemes in the study period from the year 2012 to the year 2016 was 285.76 million Kenya shillings with a standard deviation of 172.86 which indicated a large variation in the yearly contributions from the year 2012 to the year 2016 which can be explained by changes in the membership. The findings also showed that the data on total contributions was normally distributed as the significance of the Jarque Bera statistic was not significant (Probability > 0.05) at 95% level of confidence which led to failure of rejection of the null hypothesis of normality.

Correlation Analysis

The study also established the association between the study variables through correlation analysis. The study indicated that total contribution had a positive ($r = 0.276$) and significant ($p < 0.05$) correlation with financial performance of occupational schemes in Kenya. This implies that an increase in the member's total contributions leads to an improvement in the financial performance of the occupational schemes. The findings are consistent with the findings of a study by Oluoch (2013) which found positive relationships between returns and fund value, assets and contributions of pensioners and financial performance.

Conclusions

The study findings reveal that total contributions has a positive and significant effect on financial performance of pension schemes. Focus should be given by the Pension schemes to recruit more members or to increase the total contributions as it positively affects financial performance.

Recommendations

The study recommends that Pension Schemes in Kenya should invest more in systems to recruit more members or to increase the total contributions as it positively affects financial performance. The firms should encourage more contributions from its members. The government should also enact policies and regulations that enhance the contribution of members to Pension Schemes as well as control the amount of earnings to be retained by various occupational schemes. Future studies can focus on establishing the other determinants of financial performance of in the tune of 86.3%. Other studies can also focus on determinants of financial performance in another sector other than the Pension Schemes.

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