

FUND CHARACTERISTICS AND FINANCIAL PERFORMANCE OF COLLECTIVE INVESTMENT SCHEMES IN KENYA

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ABSTRACT

A collective investment scheme is a plan where many investors who share the same financial goal pool together funds and appoint a professional manager of these funds to do the investment on their behalf at a fee. This makes investment in collective investment schemes more cost effective in accessing a several shares/ equity, bonds, fixed deposits and treasury bills. Managing performance of collective investment schemes involves use financial ratios such as profitability ratios and leverage ratios. The general objective of this research project was to determine the effect fund characteristics on the financial performance of collective investment schemes in Kenya. The specific goals of the study were; to investigate the impact of that institutional factors, investment strategy, the regulatory framework and lastly to the scheme products on the performance of collective investment schemes in Kenya financially. The study was grounded on theories such as: the Capital Asset Pricing Model (CAPM), the Keynesian Theory, the Arbitrage Pricing Theory (APT) and the Theory of Financial Deepening. The researcher used secondary data in the study and the 21 Nairobi based CISs constituted the target population. Because of the small CIS population, Census was used in the study. The stata method was also used by the researcher in the analysis of data. Diagnostic tests and panel data modeling was carried out simultaneously.

The study took ethical considerations into account. Study findings will bridge the knowledge gap and also make an improvement on the academic reference material on performance of Kenyan CIS. This study also expanded the available empirical evidence by using return on investment (ROI) metric as measure of the CIS performance. It concluded that institutional factors have a significant effect on return on investment (ROI), the findings further showed that scheme products had an effect on the CIS performance. The study concentrated on Collective investment schemes in Kenya which operated between 2018 and 2022, a period during which possibly some CISs that either had not existed or were just starting up leading to unbalanced panels being generated. Secondary data that was used could also have resulted into undetected errors. The research suggested that further studies can be done focusing on examining the effect of funds characteristics on other institutions within the capital markets in Kenya. This will help in improving the available knowledge on the elements that promote returns on investments of new players in the country's finance industry.

Key words: Institutional Factors, Regulatory Framework, Investment Strategy, Schemes Products, Fund Characteristics and Financial Performance,

INTRODUCTION

Background of the Study

Collective investment scheme (CIS) is a strategy which involves pooling of funds from many investors who share common financial objectives. The funds are managed by registered professional

administrators. They are put into an investment portfolio of bonds, shares, and securities that have been chosen with care. CIS's income is distributed to unit holders from capital gains, dividends, and interest income (Mayie, 2018).

Financial performance as per Omollo and others, (2018) is a change in business strategy, internal controls, and the overall business environment, all of which have the potential to increase or decrease over time. Consequently, it is a measure of the extent to which the cited variables have altered since the most recent review. A company's financial performance can also be evaluated based on how effectively it has utilized its available capital to increase shareholder benefits.

Collective Investment Schemes gives an opportunity for an investor to have accessibility to different regional and international investment opportunities. According to Stacio (2019), investors can bargain for higher returns than they would receive if they invested on their own and pool their funds to lower the costs of buying and selling securities. The funds typically make use of a variety of legal structures, such as unit trusts, investment companies, or contractual pools.

The first MMF in Europe was established in France with the same intent as those that sparked industry expansion in the United States: to engage in regulatory arbitrage. In order to retain customers, banks established MMFs through affiliates in asset management and circumvented rate caps by offering investors' money market yields. MMFs initially focused primarily on short-term government debt investments. However, MMFs were able to increase their investments in private short-term debt instruments in the middle of the 1980s thanks to deregulation and the opening of French capital markets. According to Leclair(2019), by the year 1993, French mutual funds (MMFs) controlled above 60% of the mutual fund industry and had nearly €240 billion in assets. In line with global risk appetite, the South African rand is also a popular carry trade currency, which can significantly increase the volatility of foreign positioning. The local markets experienced high volatility throughout 2020, compared to their international competitors which were only alleviated by the SARB's prompt intervention in the government bond market.

Investment firms investing in a variety of funds have increased as the fund industry has really grown in current markets. Capital Markets Authority Amendment Act of 2000 made certain investment vehicles, like mutual funds and unit trusts, legal. This made it possible for both retail and institutional investors in Kenya to add more variety to their portfolios. Since the enlistment of the principal unit trust plot in Kenya in 2002, the market has encountered sensational development as far as offer exchanging volumes, market capitalization, and offer costs, as well as the remarkable development of these assets, with a considerable lot of them being enrolled yearly (Kasanga, 2018). CIS operations and knowledge in Kenya are still in their infancy, and they are not fully developed. The Zimele Asset Management Company, which was registered by the CMA and the RBA, was the first company in Kenya to establish CIS. The initiative for them then was to pool resources together and invests in various interests - earning instruments like treasury bills, bonds, and commercial paper. They had three investment portfolios, an offshore portfolio which allows investors to invest in foreign companies, a balanced portfolio which combines both local and international markets and money markets which deal with short-term financial objectives like commercial papers (CMA, 2020). Kasanga (2018) reports that there are 16 asset administrators authorized by the Retirement

Benefits Authority (RBA) and Capital Markets Authority (CMA) who direct benefits, unit trust, and other institutional and retail reserves. The prospectus cover of a fund that has been approved can easily be identified because it states that the Capital Markets Authority has approved a copy of the prospectus.

Statement of the Problem

CISs are propelling their economies upward in many of the developed countries. Compared to their international competitors, CISs in Kenya have performed poorly which hinders the achievement of as stable financial status as stated in Kenya Vision 2030 (Namu and Nthemba, 2021).

There are a number of reasons why collective investment schemes' overall performance hasn't been as strong as it could be, some of which could be attributed to firm financing. Despite industry expectations, Kenyan financial performance collective investment schemes have continued to exhibit an unimpressive trend over time. The low returns realized from asset classes as they are pooled into the overall portfolio of various CISs in Kenya are the cause of this trend.

There has been a significant increase in the amount of money invested in nations that established unit trusts around the same time as Kenya in 2000. In Kenya, there is little growth. This is a concern for the nation, investors, and other stakeholders and can be attributed to the sector's poor performance. Also, it shows that investors don't know enough about the market or that fund managers aren't doing enough to attract investors. In addition, investors lose faith in the unit trust as a result of its poor performance.

Fund characteristics and collective investment scheme financial performance has been the subject of empirical research. Unit trusts have been the subject of some local research in Kenya.

Objectives of the Study

General Objective

The main reason for this research was to investigate the influence of fund characteristics on financial performance of collective investment schemes in Kenya.

The specific objectives of the study were;

- i. To find out the influence of institutional factors on the financial performance of collective investment schemes in Kenya.
- ii. To identify the effect of investment strategy on the financial performance of collective investment schemes in Kenya.
- iii. To examine the influence of regulatory framework on the financial performance of collective investment schemes in Kenya.
- iv. To establish the effect of scheme products on the financial performance of collective investment schemes in Kenya.

Organization of the article

This study was organized into introduction (a description of the key areas of the study), the theoretical literature review, research methodology, data analysis, conclusions and recommendations of the study.

THEORETICAL LITERATURE REVIEW

Arbitrage Pricing Theory

Ross (1976) was the author of the theory, an augmentation of the capital resource valuing model (CAPM). The theory asserts that share prices are influenced by a variety of factors, in contrast to CAPM, which argued that prices are influenced by one factor (Kazi, 2004). Consequently, asset pricing has been greatly influenced by this theory. The APT theory was developed as an alternative to asset pricing in response to dissatisfaction with CAPM. The fundamentals of expected utility theory served as the foundation for CAPM.

Since the model is multifactor, an asset can possess several measures of systematic risk. Each measure demonstrates an asset's remarkable sensitivity to a specific factor. In situations where numerous risk sources other than the market factor are present, several asset pricing factor models that are based on the Arbitrage Pricing Theory evaluate a multifactor equilibrium (Erdugan, 2012).

Capital Asset Pricing Model

According to Lintner's Capital Asset Pricing Model (1973), no one player can influence the market price in an efficient market with knowledgeable buyers and suppliers. Instead, they adjust their prices to match those of their rivals. According to Lee and Rui, the theory also assumes an investment horizon of one period. This suggests that investors will not be interested in what happens in subsequent periods and will only hold the security during the current period. Sharpe guarantees that only publicly traded financial assets like stock and bonds can be invested in, with investors being able to lend or borrow any number of funds at a fixed risk-free rate. Sharpe (1964), investors do not incur transaction cost and no taxes on returns on purchasing and selling of securities. It also said that every investor is a rational mean variance optimizer.

According to studies, there are a few expected errors in corporate CAPM use. First, the straightforward model might not adequately capture the financial markets behavior. Secondly, betas become unstable over time. This presents challenges when betas from historical data are utilized in the evaluation of future cash flows to calculate costs of equity. Betas ought to change along with capital structures and company fundamentals. Additionally, beta estimates based on previous data can be affected by statistical estimation error (Levy, 2012).

CAPM provides an explanation of the concept of un-diversifiable risk in unit trust fund investment. The study focuses on determining how institutional factors influence the financial performance in the Kenyan collective investment schemes over time.

The Keynesian Theory

John Maynard Keynes in 1936 in this theory proposed that an expansion in the general cost level is caused by an expansion in total interest which is over the total stock in the event that the economy is at full result level, an expansion in government use, confidential utilization and an ascent in confidential venture leads to an ascent total interest (Reddy, 2012). Ifionu (2017) makes sense of that, expansion pressure is because of the way that at full work of result and with most extreme use of scant assets, an economy can't build its total stockpile to match the rising total interest. The Keynesian theory emphasizes reducing unemployment rather than reducing inflation. The evidence has led the advocates to the conclusion on benefits of low inflation being negligible. This study makes use of the theory because it explains how the regulatory framework in Kenya influences the financial performance of collective investment schemes.

Financial Deepening Theory

Nnanna and Dogo (1998), the theory's proponents, demonstrate that money-related area development leads to monetary growth and, ultimately, economic growth (Nnanna& Dogo, 1998). The selection of an appropriate real financial strategy results in financial deepening, particularly with regard to real profit rates and real financing stock. Additionally, the processes of fund mutilations are incompletely the result of a shallow budgetary framework. The depth of finance is taken into account when developing through money-related intermediaries. According to Shaw (1973), the evolving financial framework allows a wide range of businesses like industrial banks and insurance agents to engage in profitable activities. By itself, financial deepening contributes to development by increasing the effectiveness of speculation. This relationship confirms the positive popularization, ostensibly with the advancement of money related development (Friedman, 1998). [Traditional finance, according to critics, has consolidated in economically developed regions, resulting in widespread financial exclusion of vulnerable groups. Inclusionary finance places an emphasis on the accessibility and long-term viability of financial services, assists those at the bottom of society in gaining production skills, and provides financial services to weak businesses that are capable of technological innovation but face financial constraints.

Empirical Literature Review

Regulatory Framework and Financial Performance

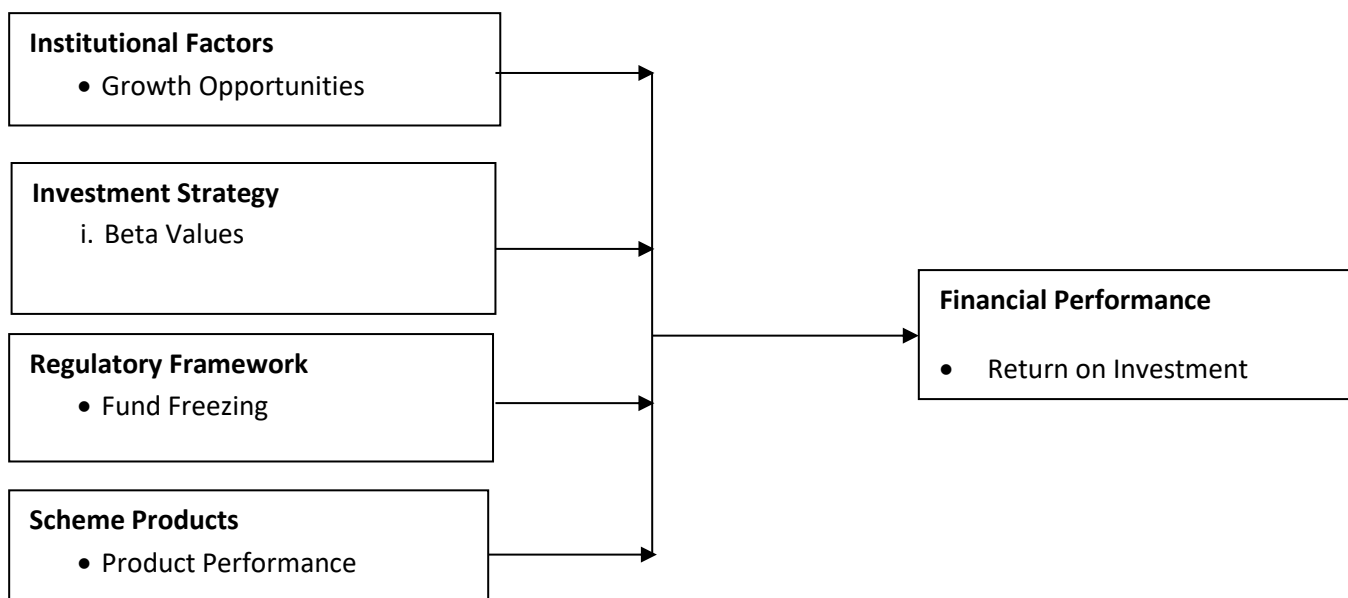
Regulatory authorities should be in charge of all funds within their jurisdictions. Before the operator begins marketing, funds must be registered or authorized by the regulator. The regulator must be able to enforce regulations and conduct inspections and investigations of fund management businesses. It should also have sufficient authority to safeguard investors' interests, such as the ability to revoke licenses, suspend dealing, freeze the assets of funds or fund management

companies, impose fines, revoke fund authorization, and recommend criminal prosecution (Cytonn, 2019). The capital markets regulator, the CMA, has been given a lot of authority under the CIS Act to supervise and intervene in CIS by monitoring them, conducting inspections, investigations, and enforcing the laws and regulations that govern these schemes (CMA, 2019). Because the CMA constantly monitors the projects' activities to ensure compliance with laws and regulations, this should increase investor protection. The regulatory authority needs a sufficient staff with adequate training and compensation to carry out its duties. In addition, the regulator needs sufficient legal authority and independence to carry out its duties in the areas of investigation and enforcement.

Ade (2017) investigated the factors that influence performance in Nigerian pension companies. The review utilized quantitative plan. The study used a sample of 51 Nigerian pension companies through stratified random sampling. Audited statements from these pension companies provided the basis for the secondary data. The study found, through multiple linear regression, that pension firms in Nigeria's financial performance is positively impacted by contributors' age, fund liquidity, fund design, and fund performance.

Ombaba's (2018) study found that companies' return on assets (ROA) was better measured by diversified boards. Consequently, the organization's financial performance and diversity on the board are linked. Directors with the qualities, business experiences, and skills appropriate for the organization in question make up corporate boards. The essential qualities of a board ought to be insight in administration, bookkeeping, the business, client care, calamity reaction, authority, and vital preparation.

Conceptual Framework



RESEARCH METHODOLOGY

A descriptive research design which involved measuring of variables as they exist and sought to provide answers to arising questions about the current state of affairs was adopted by the study. The target population of the study included 21 Kenyan collective investment schemes listed by the NSE as its population. Data was collected from secondary sources which are licensed CISs in Kenya

which publish their financial statements in each financial year. The sampling technique was a census since the size of the population is small.

Data Analysis

Coding, data collection, and review data entry and the stata method were used in the analysis of data. Data from 14 collective investment schemes were available (66%). Cooper and Schindler (2014) proposed a response rate above 60% to be meeting the threshold for analysis of quantitative analysis and can be relied upon in making inferences for the whole population.

Descriptive Analysis

A summary of descriptive statistics is shown below;

Table I: Summary of Descriptive statistics

Variable	Observed	Mean	Std. Dev.	Min	Max
Institutional factors	125	7.908	0.857	5.184	8.956
Investment strategy	125	0.446	1.731	-3.96	3.123
Regulatory framework	125	6.271	1.957	0	8.949
Scheme products	125	8.014	0.859	5.699	9.305
Return on investment (ROI)	125	0.382	0.253	0.01	0.988

Source: Research Data (2023)

Table 1 showed that firms held 7.908 million on average in institutional factors; the highest holding was 8.956 million, the lowest was 5.184 million with a standard deviation of 0.857 showing that the difference in the allocation of investment funds to institutional factors was moderate. The study also found out that there were average institutional factors with 6.091million in the selected firms with a standard deviation of 2.432 indicating that investment finds that allocated to bonds in the CIS firms had a high spread. The study also noted that money market holdings averaged 6.271 million. However, a standard deviation of 1.957 showed high deviations across the firms from the average money market holding. The results also showed that the CIS firms had scheme products of 8.014 on average. The findings also indicated there was a standard deviation of 0.859, implying moderate deviation in the size of the collective investment firms from the average Scheme products.

The findings also showed that between 2018 and 2022, the analyzed results showed that the firms had a return on investment (ROI) of 0.382. The minimum return on investment (ROI) between 2018 and 2022 was 0.01 while the standard deviation was 0.253, showing that the return on investment (ROI) on average was low.

Multicollinearity Test

This test was done to find out whether explanatory variables in the regression model had any level of association as per Baltagi, (2005 and the following results were obtained.

Table II: Collinearity Results

Variable	VIF	1/VIF
Institutional factors	1.53	0.653594
Investment strategy	2.91	0.343642
Regulatory framework	1.42	0.706343
Scheme products	1.34	0.748256

Source: Research Data (2023)

The Collinearity Tests usually utilize the Variance Inflation Factor AND Tolerance Values. As a standard the VIF should be above one and below 10. Further, a tolerance value above 0.1 confirms no collinearity issues within the data set (Oakshott, 2014). In the table above, all VIF values are lower than 10, indicating no collinearity issues within the predictor variables adopted in this research. The tolerance values (1/VIF) were above 0.1 affirming that there were no excessive collinearity concerns within the study variables.

Normality Test

These are used to find out if the sample was drawn from a population that is normally distributed (Kothari & Garg, 2014). To test for the normality of the data collected, the study utilized Kurtosis and Skewness tests.

Table III: Normality Results

Variable	Obs.	Skewness	Kurtosis
Institutional factors	125	(3.40)	6.67
Investment strategy	125	(1.43)	1.31
Regulatory framework	125	(1.99)	3.89
Scheme products	125	(0.91)	0.66
Return on investment (ROI)	125	(2.03)	8.63

Source: Research Data (2023)

According to Tabachnick, Fidell and Ullman (2007) the criteria for interpretation of the normality tests should be guided by; skewness values should be less than 2 while kurtosis values should be less than 10 for normal data. Table 4.3 show that Skewness values for the study variables were all less than +2 while the Kurtosis values were lower than 10, indicating normality.

Heteroscedasticity Tests

Heteroscedasticity refers to regression disturbances with inconsistent variables across different observations (Garson, 2012). The research carried out a Breusch-Pagan / Cook-Weisberg test so as to identify heteroscedasticity in the disturbances of the regression model.

Table IV: Heteroscedasticity Results

Breusch-Pagan test for heteroscedasticity
Ho: Constant variance
Variables: ROI fitted values
chi2(1) = 0.01
Prob > chi2 = 0.0000

Source: Research Data (2023)

The first set of fitted model return on investment (ROI) results showed Prob > chi2 = 0.000, significant at 5% level (below 0.05). This indicated that there was no heteroscedasticity because the variance was constant.

Autocorrelation Tests

This is the automatic relation between values of a variable and lagged values of the same variable (Sharifzadeh, 2010). The study employed the Durbin-Watson statistics in testing for the presence of serial correlation within the data set.

Table V: Autocorrelation Results

Model	F-value	Durbin-Watson Statistic
Return on Investment (ROI)	19.77	1.79

Source: Research Data (2023)

The results above show a Durbin-Watson = 1.98; 1.79 which is less than 2.5 indicating there was no notable correlation in the model.

Stationarity Tests

The study applied the Levin-Lin-Chu test. Baltagi (2005) opined that the Levin-Lin-Chu test are the most appropriate when conducting stationarity tests for panel data. This test helps in testing the stationarity in the panel data. The test examines the stationarity (Ha) or presence of unit roots tests (Ho) within the panel data using the following criterion; if P-value<0.05 use stationary alternative.

Table VI: Stationarity Results

Variable	LLC Test	Statistics	P-Value
Return on investment (ROI)	Unadjusted t	-8.6845	0.0035
	Adjusted t*	-2.6931	
Institutional factors	Unadjusted t	-9.374	0.0000
	Adjusted t*	-8.967	
Investment strategy	Unadjusted t	-12.2746	0.0000
	Adjusted t*	-10.1620	
Regulatory framework	Unadjusted t	-7.2518	0.0000
	Adjusted t*	-5.8136	
Scheme products	Unadjusted t	-2.7984	0.0043
	Adjusted t*	-2.3444	

Source: Research Data (2023)

Based on the null hypothesis that formed the basis of the test, that the panels contain unit roots against an alternative of stationary panels. The findings of the study indicated an LLC p-statistic as follows; return on investment (ROI) (P=.0035<.05), Institutional factors (P=.0000<.05), Investment strategy (P=.0000<.05), regulatory framework (P=.0000<.05) and schemes products (P=.0000<.05). This is an indication that the variables exhibited stationarity since the adjusted t* had a significance p-value at 5% significance level. Further, stationarity test results showed that the pooled first-order autoregressive parameter with lags resulted in ROI result of (P= 0.0000<.05). Hence, the findings showed there was no stationarity violation in the variables utilized in the study.

Model Specification Tests

A test used to find out the model that is most suitable between the fixed model and random effects model. A Chi-square statistic p-value that is greater than 0.05 in the test shows that a random effect model is more preferred (Torres-Reyna, 2007).

Table VII: Model Output Fitted for Return on investment (ROI)

Variable	(b) fe	(B) re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
Institutional factors	7.284446	7.043355	.2410909	.4381418
Investment strategy	-.5951007	-.483099	-.1120017	.0933647
Regulatory framework	.658118	.5841992	.0739188	.1632675
Schemes products	.6049617	.7787183	-.1737566	.1334993
Chi Sq. Statistics = 1.92				
Prob>chi2 = 0.5888				

Source: Research Data (2023)

Results of the test showed that the values of the panel regression on both sets had Prob>chi2 values greater than 0.05, this made the research to adopt the random effects model in the regression analysis.

Panel Regression Analysis

The Hausman specification tests were applied by the study to rule out between the fixed effects and random effects model and random effects model was ruled out and adopted in the study. The study hypotheses tested whether funds characteristics significantly affects financial performance of collective investment schemes.

Effect of Funds characteristics on Return on investment (ROI)

The panel regression models goal aimed at finding out the influence of funds characteristics on the return on investment (ROI) of the CIS.

Table IV: Regression of Funds characteristics and Return on Investment (ROI)

Variable	Coefficient	Std. Error	Z	P> z
Institutional factors	7.0430	1.8220	3.870	0.0400
Investment strategy	-0.4830	0.6930	0.700	0.0101
Regulatory framework	0.5840	0.9160	0.640	0.0237
Scheme products	0.3240	0.2130	0.7100	0.0146
_cons	-18.0770	14.1680	-1.280	0.2020
Weighted Statistics				
R-sq.:		Obs = 125		
within = 0.15570		Groups = 14		
between = 0.00520		Wald chi2(3) = 19.770		
overall = 0.03770		Prob > chi2 = 0.0000		

Source: Research Data (2023)

The Wald chi-square statistic for the model was 19.77 and a p-value of 0.000. The p-value higher than 0.05 insinuated that at 0.05 significance level, we reject the null hypothesis and conclude that funds characteristics have a positive significant effect on CISs return on investment (ROI). The coefficient of determination (R-sq. = 0.0377) that statistically proved significant, Prob > chi2 =

0.000<0.05 indicating that 3.77% of the variations in return on investment (ROI) of collective investment schemes were expounded by the institutional factors, investment strategy, and regulatory framework and scheme products. The low level of R-square can be as a result of a low explanatory power of the selected independent variables on CISs return on investment (ROI). Therefore, incorporating more predictor values could improve the strength of the model.

Conclusions and Recommendations

Conclusions

The conclusions and affirmations of the study were that institutional factors have a positive effect on return on investment (ROI). The results showed that increasing the equity holding within the firm will improve the quick ratio within the firm. A higher reliance on institutional factors within the CIS lowers the interest charges from other forms of investments and this will improve the firm return on investment (ROI) position.

The results indicate that investment strategy in the collective investment Schemes have no significant effect on the return on investment (ROI) of Kenyan CIS firms. This affirmed that increased use of the investment strategy increased interest charges on the bonds accruing to the firms hence reducing the profitability of CIS.

The findings were an indication that the current level of investments in within a harmonized regulatory framework did not support better return on investment (ROI) of the firms.

Lastly, the general objective aimed at determining the influence of the fund's characteristics on financial performance on Kenyan CIS firms. The research further concluded that funds characteristics had a positive effect on the return on investment (ROI) of the CISs in Kenya. The research findings indicated that funds characteristics had a positive effect on return on investment (ROI) of the collective investment schemes. The study therefore recommended that fund managers should more actively engage in diversification policies that strengthen the funds characteristics in the firm by probably considering the technology-backed investments which will improve the financial performance of the Collective Investment Schemes.

Recommendations

The findings also showed that scheme products had a moderating effect on the relationship between funds characteristics and CIS performance. Recommendations were for investment schemes to develop alliances with their parent companies and other individual and group investors who can help shore up the size of the schemes. Increased scheme products lead to the expectation of improved economies of scale as well as broaden their capacity to invest in various diversification options to improve profit generation capacity. Further, investment schemes with larger size are expected to have better financial returns which can improve the sustainability of the funds.

Due to the positive effect of funds characteristics on CIS performance, the study also recommended that the Capital Markets Authority should rely on the findings of this study when developing guidelines on the minimum holding on various investment portfolios.

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