

FACTORS AFFECTING PROFITABILITY OF MUTUAL FUNDS IN KENYA

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Abstract

Mutual funds have recently gained popularity in investment industry in Kenya. However, their continued poor performance compared to the market indexes still raise questions. This study therefore sought to address the factors affecting profitability of mutual funds in Kenya. The specific objectives of the study were; to determine the effect of assets, liquidity, expenses and liabilities on profitability of mutual funds in Kenya. The study adopted a descriptive approach that sought to analyse 19 mutual funds out of the 63 funds in Kenya as at the end of the year 2014 using secondary data. The study established that assets, liquidity, and liabilities affect profitability of mutual funds positively and established a negative relationship between expenses and profitability of mutual funds. The study recommended that mutual funds need to invest in offshore funds after assessing potential risks like political climate and regional economic stability, invest in short term assets like marketable securities with a span of 1 year than investing in long term. Also mutual funds should maintain adequate liquidity to enable them take advantage of the market, ensure that expenses are well controlled and reduced and make use of nonbank liabilities by borrowing from other sources like insurance companies and from money market funds which is relatively cheaper. It is recommended that a further research be carried out on the effect of investment diversification, and equity on profitability of mutual funds.

Keywords: Assets, Liquidity, Expenses, Liabilities, Profitability

INTRODUCTION

The birth of mutual fund industry dates back to a European Dutch merchant Adriaan Van Ketwich in 1774. After the financial crisis from 1772 to 1773 he created the first closed-end fund of 2,000 shares. His motivation was to provide diversification for small investors. During this financial crisis, many British banks were bankrupt because of the overextension of their positions in the British East India Company. This crisis also infected many banks in Amsterdam. By observing this financial crisis, Van Ketwich realized the potential benefits of diversification. To turn his idea into reality, he initiated to attract some investors and invested the pooled money to banks, plantation loans in Central and South America, and bonds that were issued by Austrian, Danish, German, Spanish, Swedish, and Russian governments (Budiono, 2009).

Around the globe, the mutual fund industry has seen strong growth in assets in the past two decades. The number of mutual funds worldwide increased from 69,492 in 2010 to 79,669 in 2014 while global assets in mutual funds increased from \$4.0 trillion in 1993 to \$33.4 trillion in September 2014, reflecting increases in each of four broad regions: the United States, Europe, Asia-Pacific, and the rest of the world (ICI, 2015).

The U.S. mutual fund industry remained the largest in the world with \$17.8 trillion in assets at year-end 2014, accounting for half of the \$33.4 trillion in mutual fund assets worldwide. Total net assets increased by nearly \$818 billion from the level at year-end 2013, boosted primarily by growth in equity fund assets. Net new cash flow into all types of mutual funds totaled \$102 billion in 2014 (Wells Fargo, 2014).

China's mutual fund industry is currently small but statistical analysis indicates that it could change over the next several decades. If that occurs, ICI Global's statistical analysis suggests that China's long-term mutual fund assets could reach \$11.8 trillion China by 2050. This assumes that China has no defined contribution (DC) plan system allowing participants to invest in mutual funds. If, to the contrary, China develops a DC pension plan system that allows contributions to be invested in mutual funds, its mutual fund asset could be even larger by 2050, perhaps \$15 trillion (Keohane, 2011).

In Africa, there were 951 unit trust funds across approximately 42 management companies as at 30 June 2012. The most recent Alexander Forbes survey of retirement fund investment managers shows total assets under management in South Africa of R3.3 trillion as at 30 June 2012, compared to R3.1 trillion as at 30 June 2011, representing growth of under 6%. According to the World Bank global economic prospects June 2013 report, "on aggregate the region's asset managers grew at 4.4% in 2012." The report continues that the region is expected to record 4.9% growth in 2013, 5.2% in 2014 and 5.4% in 2015 (KPMG, 2013).

In Kenya, the idea of mutual funds did not begin until the enactment of The Capital Markets Authority (CMA) that is empowered under Section 30 of the Capital Markets Act to approve institutions to promote Collective Investment schemes under Capital Markets (Collective Investment Schemes) Regulation, 2001. Total assets under management rose by 21.2 per cent to Ksh38.1 billion in 2014 from Ksh17.6 billion in 2010. This was as a result of a sharp rise in share prices, higher bond valuations and investors putting in more funds into unit trusts. In 2012 the NSE 20 Share Index, which tracks the prices of the 20 most traded shares at the Nairobi Securities Exchange (NSE), rose by 28.95 per cent while the NSE All Share Index rose by 39.42 per cent Total income for the unit trusts rose to Ksh4.8 billion (\$56.1 million) in 2012 from a loss of Ksh931.1 million (\$10.9 million) in 2011 while profit after tax rose to Ksh4.1 billion (\$48.4 million) from a combined loss after tax of Ksh2.4 billion (\$28.2 million) (East African, 2015).

Purpose of the Study

The purpose of this study was to analyze the effect of assets, liquidity, expenses and liabilities on the profitability of mutual funds in Kenya. Data were obtained from the audited financial statements of the individual mutual funds and managed using Excel and Statistical Package for Social Sciences.

LITERATURE REVIEW

Assets

Tangjitprom (2014) studied the effect of mutual fund size on its performance based on active equity mutual funds in Thailand during 2006-2012. The quadratic relationship found in this study implies that there is an optimal size of mutual fund. For relatively small funds, the performance increases as fund size increases. The study attributed this to size advantage from economies of scale. However, when funds become larger and larger, the performance is deteriorated by the size due to diseconomies of scale.

Dawe et al. (2014) analyzed the performance persistence of equity and blended mutual funds in Kenya. The study aimed to establish persistence of funds' performance over the period 2006 to 2009. They concluded that the fund size is likely to be the main factor in influencing the performance due to reduction in cost per unit of the fund due to economies of scale.

Njuguna and Arnolds (2010) reveals that smaller funds are more financially efficient than larger ones owing to the bigger ones sitting on large sums of money and inefficiently investing it. Smaller funds have smaller financial resources which they have to invest more judiciously. Furthermore, larger pension funds with huge investments in the stock market are exposed to

more risk compared with smaller funds. Smaller pension funds might be more financially efficient than larger ones, but financial efficiency does not necessarily translate into profitability.

Liquidity

Foran and O'Sullivan (2014) analysed Liquidity Risk and the Performance of UK Mutual Funds. The study sought to examine the role of liquidity risk, both as a stock characteristic as well as systematic liquidity risk, in UK mutual fund performance. The study established that on average UK mutual funds are tilted towards liquid stocks (except for small stock funds as might be expected) but that, counter-intuitively, liquidity rather than illiquidity, as a stock characteristic is positively priced in the cross-section of fund performance. Further, the study revealed a strong role for stock liquidity level and systematic liquidity risk in fund performance evaluation models.

Pastor and Stambaugh (2003) researched on liquidity risk and expected stock returns in U.S between the period 1966 and 1999. The study investigated whether market wide liquidity is a state variable important in asset pricing. The study established that expected stock returns are related cross-sectionally to the sensitivities of returns to fluctuations in aggregate liquidity. According to the study, liquidity is abroad and elusive concept that generally denotes the ability to trade large quantities quickly, at low cost, and without moving the price.

Ferreira *et al.* (2012) analysed the determinants of mutual fund performance in 27 countries over 1997–2007 period. The study established that the adverse scale effects in the USA are related to liquidity constraints faced by funds that, by virtue of their style, have to invest in small and domestic stocks. Funds located in countries with liquid stock markets and strong legal institutions display better performance. Indeed, US funds that invest in small and illiquid stocks are the most negatively affected by scale, while this is not the case with non-US funds.

Suppa-aim (2010) studied the liquidity premium, share restriction and mutual fund performance in Thailand. The study looked at the relationship between liquidity and mutual fund performance using a return-based stale price measure to quantify the liquidity of the assets contained in the portfolio. The study established that the liquidity of assets contained in the mutual fund portfolio plays an important part in mutual fund returns. Further, the study concluded that the highest liquidity mutual fund portfolio significantly underperforms the market in contrast to the lowest liquidity mutual fund portfolio, which significantly outperforms the market hence evidence of an illiquidity premium in Thai mutual funds.

Liabilities

Boguth and Simutin (2015) analysed Leverage Constraints and Asset Prices in Canada. The study sought to gain Insights from Mutual Fund Risk Taking for the period from 1988 to 2014.

Results showed that the tightness of leverage constraints has important implications for asset prices. They concluded that funds with low exposure to the factor outperform high-exposure funds by more than 5% annually, and for stocks this difference reaches 7%. The study proposed a demand-based measure for this leverage constraint tightness by inverting the argument that constrained investors tilt their portfolios to riskier assets.

Studies by Wignall (2007) on Issues in Leverage and Risk of Hedge Funds reveal that Leverage, when combined with a rapid and focused trading style, allows hedge funds to have a much bigger impact on market turnover than the AUM. Gearing is required to boost returns where low risk and low return styles are implemented.

Al-tally (2014) investigated the effect of financial leverage on firm profitability in Saudi Arabia's public listed companies. The overall results of this study were that, in the long term, in the absence of acute economic downturns, lower leverage levels tend to lead to higher profit margins and returns on both assets and equity. The study recommended that, under normal economic conditions, Saudi Arabian firms could attempt to improve their profitability by balancing their liabilities with their leverage borrowing levels. Another recommendation made by this study is that more studies are needed to examine liabilities calculation standards and liabilities effect on firms' capital structure and society.

Davydov (2014) examined corporate debt financing sources and their implications for firm performance in Finland. The results of the study provided evidence to suggest that higher levels of bank debt may enhance firm profitability, as measured by ROA. The study concluded that debt source choice is an important determinant of firm performance and may be particularly valuable in times of financial turmoil.

Expenses

Khorana *et al.* (2008) studied mutual fund fees around the world. The study aimed to examine management fees, total expense ratios, and total shareholder costs (including load charges) charged by 46,580 mutual fund classes offered for sale in 18 countries, which account for about 86% of the world fund industry in 2002 they concluded that fees are lower for larger funds and fund families, index funds, funds of funds, guaranteed funds, and funds that require a higher minimum investment.

Barber *et al.* (2005) analysed the Effects of Expenses on Mutual Fund Flows in U. S. The study sought to establish the fees charged by mutual funds over the last several decades. They found negative relations between flows and front-end-load fees and in contrast, no relation between operating expenses and flows. Additional analyses indicated that marketing and advertising, the costs of which are often embedded in funds' operating expenses account for

this surprising result. The study established that Mutual funds have dramatically changed the way that they charge expenses. They concluded that that investors are sensitive to the form in which fund expenses are charged; though investors are less likely to buy funds with high transaction fees (e.g., broker commissions or front-end load fees), their purchases are relatively insensitive to a fund's operating expense ratio.

Elton *et al.* (2011) have also shown that expense ratios and management fees decline with size and decline with success, with the top-performing funds decreasing fees and the poor-performing funds increasing fees. This makes sense, since management fee schedules normally decline with size and administrative costs have a large fixed component.

Carhart (1997) researched on persistence in mutual fund performance funds. He established that funds that heavily underperform have very high expense ratios, while funds that are successful do not increase revenues by raising their fees but benefit from the increased size of their funds

Profitability

It is typical that when one has made a decision, one wonders what its consequences will be. Therefore, once an investor has given money to a fund manager to invest on his/her behalf, he/she should have the right to know what sort of performance they have obtained. Does the fund manager offer superior or inferior performance? How does the fund manager perform compared to peers? And what sort of strategy is used? (Suppa-aim, 2010)

Goel (2013) analysed the profitability of mutual funds and investors' behavior in India during April, 2006 to March, 2012. The study indicated that more than half of the mutual fund schemes have risk adjusted performance (Sharpe ratio) below than the industry average risk adjusted return. The study concluded that Investors judge mutual fund schemes for investment on the basis of their structure, size, performance, status and professional expertise. The study recommended that companies should take corrective measures to improve their performance. Also policy makers and governing bodies might abolish the schemes giving poor performance since a long period. Further research was recommended to be carried for a shorter span of time period say two to three years so that data for large number of mutual fund schemes will be available and sample size may be increased.

RESEARCH METHODOLOGY

The study adopted a descriptive analysis research design in order to understand the performance of mutual funds in Kenya for the period 2010 to 2014. The population for the study comprised of 63 mutual funds operated by 18 unit trusts in Kenya as per the CMA listing in July

2014 for the period 2010 to 2014 financial years. The study adopted 30% of the target population which is 19 mutual funds out of the 63 total numbers of mutual funds listed by the CMA in Kenya for a period of 5 years from 2010 to 2014. Stratified sampling was used since the population embraces distinct categories which can be organized as “strata”. Each stratum will then be sampled randomly to select individual elements so as to avoid bias and ensure proportionate representation.

Secondary data was the main source of data used in this study. This was preferred because quantitative analysis is performed on audited data freely available from the individual funds financial statements. The above data was analyzed using mean score, mean weighted averages, percentages and standard deviations. Excel sheet and SPSS were used in data storage and analysis. The data was presented in tables and figures.

A multiple regression model was used to establish the relationship between the independent variables and dependent variable. In this case, mutual fund performance will be the dependent variable while Assets, Liquidity, Expenses and Liabilities represent independent variables.

$$y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \epsilon$$

Where;

Y=Profitability

X₁ =Assets

X₂ =Liquidity

X₃ =Expenses

X₄ =Liabilities

α = intercept, also a constant that expresses where y crosses x-axis when x is zero. β₁, β₂, β₃, β₄ are regression coefficients expressing the slope that explain how much y changes when the independent variables X₁, X₂, X₃, X₄ increases by one. ε represent the fact that all the factors affecting y will not be studied and therefore there is a change in y that may remain unexplained by the equation.

ANALYSIS, FINDINGS AND DISCUSSION

Descriptive Statistics

This provides a summary of descriptive information which includes the minimum and maximum values as well as the means and standard deviations for the output. N refers to the number of funds

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Assets	19	700.935	1207.233	956.68305	123.803597
Liquidity	19	5.172	15.848	9.00279	2.468930
Expenses	19	45.912	74.441	60.09801	8.744086
Liabilities	19	38.758	53.150	45.69021	4.129769
ROA	19	7.100	19.693	11.98687	2.852624

Multiple Regression Analysis

A multiple regression analysis model best indicates the relationship between the variables when they are treated together.

Table 2: Multi-linear Regression Model Testing

Mode	Unstandardized Coefficients		Standardized Coefficients		Sig.	Correlations			
	B	Std. Error	Beta	t		Zero-order	Partial	Part	
1	Constant	3.004	5.034		.597	.560			
	Assets	.010	.003	.448	3.657	.003	.521	.699	.416
	Liquidity	.289	.198	.250	1.459	.167	.744	.363	.166
	Expenses	-.155	.049	-.476	-	.006	-.639	-.650	-.364
	Liabilities	.128	.093	.185	1.371	.192	.513	.344	.156

From the above output the Y intercept of the regression output is labeled as the Constant and has a value here of 3.004, and therefore the regression equation is:

$$y = 3.004 + 0.010x_1 + 0.289x_2 - 0.155x_3 + 0.128x_4$$

Effect of Assets on Mutual Funds Profitability

The results of descriptive statistics indicate that the mutual funds under study had assets ranging from 700.935 to 1,207.33 with an average of 956.68, showing the highest deviation of 832.8795 from its mean value. The great disparity may be explained by other factors among them, fund age and size.

The result of multiple regressions in table 2 above indicates that assets had a Beta value of .448 meaning that that an increase in funds' assets by 1% causes an increase in profitability

of mutual funds by 44.8%. At 5% significance level, the results also indicate that assets had the strongest effect having a P-value of .003 which is less than .05.

This study thus supports studies by Dawe et al. (2014) and Njuguna *et al*, (2010) that mutual funds with large amount of assets perform better than those with small investments in assets. The results confirm studies by Tangjitprom (2014) where a quadratic relationship found in this study implied that there is an optimal size of mutual fund. The study attributed this to size advantage from economies of scale. However, when funds become larger and larger, the performance is deteriorated by the size due to diseconomies of scale. This study however contradicts studies by Ferreira et al. (2012) that established negative relationship between profitability and assets.

Effect of Liquidity on Mutual Funds Profitability

The results indicate that liquidity ranges from 5,172 to 15, 848 with a mean of 9.00279. Interestingly, the mutual fund that had the highest average in liquidity had the highest value of ROA at 19.69%.

From table 2 above, the results indicates that 1% increase in liquidity leads to 25.0% increase in profitability. The findings above indicate that mutual funds with more liquid assets perform better in terms of profitability compared to their counterparts. This study confirms studies by Foran and O'Sullivan (2014) that revealed a strong role for stock liquidity level and systematic liquidity risk in fund performance evaluation models. This study also confirms studies by Ferreira *et al*. (2012) that established that the adverse scale effects in the USA are related to liquidity constraints faced by funds that, by virtue of their style, have to invest in small and domestic stocks. Funds located in countries with liquid stock markets and strong legal institutions display better performance. Indeed, US funds that invest in small and illiquid stocks are the most negatively affected by scale, while this is not the case with non-US funds Further the study agrees with Pastor and Stambaugh (2003) findings that funds located in countries with liquid stock markets and strong legal institutions display better performance. This study however contradicts studies by Suppa-aim (2010) that the highest liquidity mutual fund portfolio significantly underperforms the market in contrast to the lowest liquidity mutual fund portfolio, which significantly outperforms the market hence evidence of an illiquidity premium in Thai mutual funds

Effect of Expenses on Mutual Funds Profitability

Mutual fund expenses were found to range between 45.912 and 74.441 with a mean of 60.09 and standard deviation of 8.74. Again, the results confirmed that the mutual fund that had the

highest expenses of 74.441 had in average 11.643% in ROA while the one with minimum expenses of 45.912 had 19.69% ROA.

Table 2 above shows that an increase in mutual fund expenses by Kes 1 decreases profitability by Kes .476. This confirms studies done by Elton *et al.* (2011) that have also shown that expense ratios and management fees decline with size and decline with success, with the top-performing funds decreasing fees and the poor-performing funds increasing fees. According to Goel (2013) load fee and expense ratio have been found as the major cause of inefficiency in mutual fund schemes, and therefore confirms the findings of this study.

Effect of Liabilities on Mutual Funds Profitability

Descriptive statistics in table 1 above indicate that liabilities range between 38.758 and 53.150 and had an average of 45.69021 with a standard deviation of 4.12. The standard beta of .250 in table 2 shows that an increase in liabilities by 1% leads to 18.5 % increase in profitability. This study confirms studies by studies by Wignall (2007) and Al-tally (2014) that established a positive relationship between profitability and liabilities and contradicts studies by Tauseef *et al.* (2015) that concluded that firms which are heavily trapped in debt have to bear huge interest costs which take a big portion out of the operating incomes of these firms, leaving little portion in the net income which belongs to the owners

Summary of the Findings

The first objective sought to establish the effect of assets on mutual fund performance. The findings revealed that an increase in funds' assets by 1% causes an increase in profitability of mutual funds by 44.8%. The findings therefore confirm the fact that assets affect profitability of mutual funds.

The second objective was to evaluate the effect of liquidity on profitability of mutual funds in Kenya. The result indicates that 1% increase in liquidity leads to 25% of the variation in profitability. This indicates that liquidity has a significant effect on mutual funds profitability.

The third objective sought to analyze the effect of expenses on profitability of mutual funds in Kenya. The result indicated that when expenses increase by 1% profitability decreases by 47.60%.

The last object sought to establish the effect of liabilities on profitability of mutual funds in Kenya. When the other factors were held constant, an increase in liabilities by 1% led to 18.50% variation in profitability.

CONCLUSIONS

A regression model proved significantly valid in analyzing the factors that affect profitability of mutual funds in Kenya. The factors included assets, liquidity, expenses and liabilities that investors should consider before investing in various mutual funds.

From the findings, it is clear that assets have a significant effect on profitability of mutual funds in Kenya. Mutual funds that invest heavily on assets and make optimal use of them are likely to make higher profits compared to those with less investment in assets. Mutual funds that have larger amount of assets are likely to reap the benefits of economies of scales. Economies of scale refers to the fact that mutual fund costs may decrease as the mutual fund's assets increase, since brokers may charge lower amount of fees to try to get more of the mutual fund's business.

Liquidity was one of the variables that determine profitability of mutual funds in Kenya. Mutual funds need adequate liquidity to enable them trade in stocks, bonds, and other financial assets that generate profits. One of the crucial aspects of mutual funds is diversification which involves holding a well-balanced portfolio. A mutual fund that holds numerous securities reduces risk significantly and this is possible if there is enough liquidity that helps financial managers to take advantage of the market. Mutual funds create financial assets and redeem them on demand and therefore money invested in mutual funds is generally liquid. Usually, mutual funds are very flexible and investors may demand to withdraw their investments and this requires that mutual funds hold enough cash to meet their demands.

Mutual fund expenses were found to have a direct influence on profits of mutual funds. All mutual funds have costs that are directly charged to the profits and hence reduce the returns significantly. Mutual funds pay fee to cover marketing and distribution expenses as well as management fee that reduce profitability of mutual funds. Managers who are able to control and reduce these costs are likely to increase profitability compared to those who incur large amount of expenses.

RECOMMENDATIONS

Mutual funds' assets carry a heavy value that has long term as well as short term implications on their profitability and hence should be selected and managed well. In Kenya, regulations require that mutual funds should invest up to 10% of their assets in offshore funds. But owing to competitive nature of the investments and with improved global networks and international business environment, the government should review this regulation so that mutual funds can increase their investments in overseas (offshore) funds after assessing potential risks like

political climate and regional economic stability. Mutual funds should be able to match the risks associated with time period they invest in assets. Investing in short term assets in marketable securities with a span of 1 year may be more predictable than investing in long term assets with a span of 10 years.

Besides holding transactional balances to meet their daily operations, mutual funds should maintain adequate liquidity to enable them take advantage of the market in buying securities and shares as most of their income is derived from such trading.

Managers should ensure that expenses are well controlled and reduced to increase profits. The fund management should be rewarded on the basis of their performance.

Mutual funds should manage their current liabilities well to meet their financial shortfall. Commercial banks usually lend in short term to such big organizations at the possible lowest cost. Mutual funds may also make use of nonbank liabilities by borrowing from other sources like insurance companies and from money market funds which is relatively cheaper. It is recommended that a further research be carried out on the effect of investment diversification, and the effect of equity on profitability of mutual funds.

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