Effect of Financial Innovation on Growth of Mutual Fund Institutions Listed in NSE

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INTRODUCTION

The question of what drives the mutual fund institutions in any country is a concern of every stakeholder in a financial system in every economy. Mutual Fund industry plays a pivotal role in optimal allocation and channelization of available idle resources in the economy (Lakshmi and Sasikala, 2010). This role becomes much stronger in the developing economies, like Kenya, where the prospective investors do not have much investment knowledge, information and facilities to invest in the capital markets (Mian & Nawaz, 2010). The active involvement of mutual fund institutions in the economic development can be seen by their dominant presence in the money and capital markets world over. However, their presence is comparatively stronger in the economically advanced countries (Brendy, Anadu & Cooper, 2012). Mutual fund institutions play the role of financial intermediation, by way of resource mobilization and allocation of resources promote the growth of corporate sector. Mutual fund institutions also stabilise the stock market by way of ensuring stability as supplier of large resources and through steady absorption of floating stocks (Kalayaan, 2013). Since Kenyan population is relatively of low income, mutual fund institutions are the most ideal way to mobilize funds. The Kenya’s development plan, vision 2030, has rightly identified financial mobilization as one of its flag post project for achieving middle class economy by 2030. Given the income levels of majority of Kenyan population, Mutual fund industry should play a very important role in capital accumulation hence the need for a deliberate effort to cultivate growth mutual fund institutions.

Majority of studies done in Kenya have concentrated on performance of mutual funds and very few have looked at the growth prospects of MFI’s. The few studies have also posted conflicting results as to what really drives growth prospects of MFI’s. This study, therefore, intends to provide empirical analysis of the impacts of mutual fund institutions growth drivers. For example, while Akama, and Jagongo (2013) established that there was no agreement on the conduciveness of licensing requirements to the ease of entry and exit of market players, Okioa, C. K. (2013), Maima (2014) and Munene (2017) established that the laws and regulations unduly bureaucratic and not enabling of innovation and progress. They also unearthed a large amount and extent of information asymmetry between stock broker respondents and their mutual fund counterparts.

Aduda et al., (2012) sought to establish whether individual Kenyan investors in stocks are guided by their behavioural considerations when investing in equities of companies listed at the Nairobi Stock Exchange. They found out that there were varied behaviours of individual investors in Kenya. Some investors exhibited rational behaviour in making their investment decisions and went for stocks from companies with good financial performance and dominant niche the stocks market while others depicted irrationality and herding behaviour.

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.

Dawe (2016) evaluated the importance of key factors that affect performance of collective investment schemes in Kenya and found out that foreign investment participation, online trading, experience, age and equity risk.

Gitagia (2013), established that fund characteristics, behavior of mutual fund managers, stock-picking and timing abilities of managers as the factors affecting the performance of mutual funds.

Kimeu et al., (2016) established that Personal factors such as level of disposable income, personal investment objectives, education level, financial literacy and access to information, and age of investor were observed to influence retail investor’s investments in unit trust. Institutional factors such as reputation of the fund manager, unit trust fund past performance, accessibility and distribution network, and minimum investment amount was confirmed to influence retail investor’s investment decisions in unit trust. Product features such as strategy of the fund and liquidity were found to have a significant influence on retail investors’ unit trust investment. Regulation factors composed of tax, fund manager disclosure and transparency were found to have an impact on the unit trust investment by retail investors.

RELATED LITERATURE

Theoretical Framework

Schumpeterian Innovation Theory

Śledzik (2013) observed that Schumpeter described growth as a historical process of structural changes substantially driven by innovation which was divided into the five types, the launch of a new product or a new species of already known product, application of new methods of production or sales of a product which was not yet proven in the industry, opening of a new market for which a branch of the industry was not yet represented, acquiring of new sources of supply of raw material or semi-finished goods and creating new industry structure such as the creation or destruction of a monopoly position.

Clemence (2009) observed that Schumpeter divided innovation process into four dimensions namely; invention, innovation, diffusion and imitation and put the dynamic entrepreneur in the middle of his analysis. Clemence further argued that Schumpeter viewed innovation and entrepreneurs’ investment and employment as not the discovery of basic innovation, but rather the diffusion of basic innovation, which was the period when imitators began to realize the profitable process that makes it possible for economic agents to obtain a surplus over costs, or entrepreneurial profit. He further stated that enterprises compete with one another to gain market share and improve their ability to increase profit through the use of new methods of production resulting into competition for capital across industries which created a tendency toward disequilibrium (Betta et al., 2010).

Studies by Deakins and Freel (2009); Clemence (2009; Betta et al., 2010) and Śledzik (2013) indicated that entrepreneurship was not a static activity but rather a continuous process of innovation by introducing new products and services as new opportunities presented themselves.

Conceptual framework

Financial Innovation; • Intangible assets ratio, • Expenditure on R&D.

Fig 1. Conceptual framework.

Financial Innovation and growth of mutual fund Institutions

Innovation is both a process and an outcome which must be novelty; it must not necessarily be original but must be new to a user, application, context or environment, must bring about improvement or value addition. It can either be more effective or improve efficiency relative to preexisting applications and must be sustainable which means that it must introduce solutions that are environmentally and structurally sustainable (Kibe, Namusongo & Iraivo, 2016). It is widely known that innovation is one of the most important drivers of firm growth (Allen, 2012). Companies can create a competitive advantage through investing in innovative products and better operating methods (Dosi et al., 2015). There are a lot of papers around the relationship between innovation and economic growth since the development of the Solow growth model (Iveta, 2012). This model is used to measure the economic growth of countries over a specific period of time. According to this model, Capital, Labour and Technology are the factors which influence growth of economies as well as firms. All the three variables have a positive impact on the output. As the technology factor increases over time, labor becomes more productive and this ultimately leads to a higher output. Thus, this model predicts
that technological change has a positive impact on economic growth (Liu, 2009).

Different methods exist for measuring innovation, for example, Coad and Rao, (2006) used the number of patents and the amount of research and development (R&D) as measures for innovation while Iveta, 2012 used the amount of intangible assets as a measure for innovation. Intangible assets are those assets on the balance sheet, which cannot be seen or touched. These consist of patents, trademarks, know-how, R&D, goodwill among others. Namusonge, Muturi & Olanira (2016) concluded that lack of innovation and aggressiveness are the major factors slowing down the growth of SME’s in Nigeria Stock Exchange. Cainelli, Evangelista and Savona (2006) showed that innovation has a positive impact on both growth and productivity of firms. Thus innovating firms perform better than non-innovating firms in terms of growth.

**Measurement of Growth of mutual fund institutions**

Making profit is one of the ultimate goals of any economic activity (Suppa-ainl,2010). Profit can be measured by return on equity (ROE), which is calculated by dividing net profit by shareholders’ equity. Shareholders’ ‘equity represents share capital and proportions of profit retained in the company fund which is called ‘retained earnings’. Although there are other profit measures available, return on equity (ROE) is preferred because it is the most common measure of profitability in finance (Mwangi & Ngugi, 2014). Profitability and return on equity (ROE) determine the long-term growth prospects of a company (Olando et.al. 2012). Mutual fund growth is measured from AUM growth of each AMC taking into account returns generated. Growth in asset can be decomposed into two factors, which are new flows and returns generated. Each AMC manages a large number of different characteristic funds. For example, an AMC manages various fixed income funds, equity funds, mixed funds, and property funds. Return determining AMCs asset growth is defined as benchmark returns given its portfolio structure. Benchmark for equity return is derived from return on Kenya stock market, SET index return. Benchmark for fixed income return is the weighted average deposit rate of the five largest commercial banks in Kenya.

**METHODOLOGY**

The study adopted cross-sectional survey design for obtaining data. The design was preferred due to its ability to combine quantitative and qualitative methods (Weeks & Namusonge, 2016). Cross sectional studies data are usually collected at once perhaps over a period of days, weeks or months in order to answer research questions (Namusonge, 2010). The companies were categorized into three major categories; Government owned, Foreign owned, and Local owned companies. In cross-sectional survey design, the research attempts to determine if there is an existing relationship between the study variables at any point in time and establish reasons for an existing relationship among the groups or individuals by attempting to identify the main factor for a difference between groups or individuals. In cross-sectional survey design no variable can be manipulated as it deals with existing groups already discriminated by the independent variable.

The population of interest for this study was unit / fund managers of registered mutual fund institutions in Kenya as at end of the year 2013 and their deputies. There were 18 Fund Management Companies (FMCs) managing a total of 61 units in Kenya as at the end of 2013 (NSE, 2014) The sampling frame for this study consist of all the registered mutual fund institutions in the Nairobi securities Exchange as at December, 2016 as they appear in the NSE listing manual(2016).

Stratified random sampling was used to select the fund managers to be interviewed for the study. The fund managers are chosen because they are considered to poses the right knowledge to respond to the questionnaires. 53 funds were selected out of a total population of 61 using the formula which was developed by Saunders, Lewis & Thornhill, (2009) given by equation (1.1)

\[
 n_0 = \frac{pqz^2}{e^2} \quad \text{………………(1.1)}
\]

If the population is assumed be over 10,000 and \( p = 0.5, q = 0.5, z = 1.96 \) and \( e = 0.05 \) then \( n_0 = 385 \).

Since the target population is 61, adjusted sample size will be given by equation (1.2).

\[
 n = \frac{n_0}{1 + \frac{n_0 - 1}{N}} \quad \text{………………(1.2)}
\]

Equation (1.2) gives a sample of size 53.

Where;

- \( z \) represents the reliability coefficient at 95% confidence level (1.96)
- \( n_0 \) represents the standard sample size (385)
- \( P \) represents the population proportion (assumed to be 0.5)
- \( q \) represents the population proportion (assumed to be 0.5)
- \( N \) represents the population size
- \( e \) represents error margin.

The respondents were the unit managers and their deputies or unit managers and their deputies. So in total, 106 respondents were expected.

**RESEARCH FINDINGS**

Table 1. shows the variables for financial innovation. There were Five (5) variables which were subjected to critical factor analysis and all of them were found to be statistically significant and were therefore subjected to further statistical analysis.

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Net expenditure on research</th>
<th>Intangible assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3.5772</td>
<td>3.476</td>
</tr>
<tr>
<td>Cronbach Alpha</td>
<td>945</td>
<td>802</td>
</tr>
</tbody>
</table>

Key: Ranked on a scale; strongly disagree (1.0-1.7), disagree (1.8-2.5), indifferent/neutral (2.6-3.3), agree (3.4 - 4.1) and strongly agree (4.2-5.0).

From Table 1, the first component/dimension was named as growth of mutual fund institutions linked with net expenditure on research and development and the second component/dimension as growth of mutual fund institutions linked with increase in intangible assets. Results of growth of mutual fund institutions linked with net expenditure in research and development was agree with a mean of 3.5772 and cronbach alpha of 0.945 which was far beyond the minimum threshold of 0.7. The second component/dimension was named as growth of mutual fund institutions linked with increase in intangible assets also had agree results, with a mean 3.476 and cronbach alpha of 0.802.
These results indicate that all the respondents agreed that the constructs of financial innovation influenced the growth of mutual fund institutions in Kenya. This agrees with Liu (2009) who established that technological changes, achieved through net expenditure on research, has a positive impact on firms’ growth.

Financial Innovation and Growth Correlations Results

Correlation analysis was used to establish the relationship between Financial Innovation measures, namely new products and value of intangible assets and growth of Mutual Fund Institutions in Kenya. Table 2, shows correlation matrix showing the correlation analysis with varied degree of interrelationship between Financial Innovation and growth of mutual fund institutions. The Pearson correlation coefficient was generated at 0.01 and 0.05 significance levels (2-tailed).

Table 2. Correlation matrix of Financial Innovation and growth of mutual fund institutions.

<table>
<thead>
<tr>
<th>Correlation</th>
<th>ROI</th>
<th>AUM</th>
<th>NEP</th>
<th>VIA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>N</td>
<td>82</td>
<td>82</td>
<td>82</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>AUM Pearson Correlation</strong></td>
<td>77.41</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NEP Pearson Correlation</strong></td>
<td>235.00</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.03</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>VIA Pearson Correlation</strong></td>
<td>373.66</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **.** Correlation is significant at the 0.01 level (2-tailed).
| **.** Correlation is significant at the 0.05 level (2-tailed).

Table 1 shows correlation matrix showing the correlation analysis with varied degree of interrelationship between net expenditure on research and development (NEP), value of intangible assets (VIA) and growth of mutual fund institutions. The Pearson correlation coefficient was generated at 0.01 significance level (2-tailed). There is a mixed correlation between net expenditure on research and development (NEP), value of intangible assets (VIA) and growth of mutual fund institutions. Net expenditure on research and development had a moderate positive correlation with return on investment and a strong correlation with assets under management. Net expenditure on research and development also had significant correlation with both return on investment and assets under management at 5% and 1% significance levels respectively. Value of intangible assets had moderate positive correlation with return on investment and a strong positive correlation with assets under management. Value of intangible assets had statistical significant correlation with both return on investment and assets under management at both 1% significance level. Therefore the financial innovation measures are very important factors in the growth of mutual fund institutions. Therefore the financial innovation measures are very important factors in the growth of mutual fund institutions.

ANOVA F – Test results for financial innovation and growth of mutual fund institutions

The ANOVA test was done to test the significance of the models and to test the existence of variable variations within the models. The Table 3 shows the results.

Table 3. ANOVA results of financial innovation and growth of mutual fund institutions linked with return on investment.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
</table>
| Regression | 13.324 | 2 | 6.662 | 8.533 | 0.000*
| Residual | 81.675 | 79 | 778 | |
| Total | 94.999 | 81 | |

a. Dependent Variable: ROI
b. Predictors: (Constant), VIA, NEP

The ANOVA results in Table 3, and 4. show that the models of financial innovation (Value of intangible assets and net expenditure on research and development) and growth of mutual fund institutions linked with return on investment and growth of mutual fund institutions linked with assets under management was significant (P-value = 0.000, F-statistic= 8.533) and ( P-value 0.000 and F-statistic= 34.124) and explained the variance in growth of mutual fund institutions linked with return on investment and growth of mutual fund institutions linked with assets under management in Kenya.

The Table 2, below presents the results on the fitness of the model while considering effect of Financial innovation on growth of mutual fund institutions linked with assets under management.

Table 4. ANOVA results of financial innovation and growth of mutual fund institutions linked with assets under management.

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
</table>
| Regression | 55.969 | 2 | 17.985 | 34.124 | 0.000*
| Residual | 41.636 | 79 | 527 | |
| Total | 77.606 | 81 | |

a. Dependent Variable: AUM
b. Predictors: (Constant), VIA, NEP

This meant that the models adopted in the study were both significant and the variables tested fitted well in the models. The F- tests displayed that the null hypotheses was rejected, thus the models were valid since all of four regression variables were significant. The results of variance (ANOVA) are presented in Tables 2, and 4. Model summary for financial innovation and growth of mutual fund institutions.

In Tables 5, and 6, the coefficient R was 42.1% and 68.1% accordingly indicating a moderate and a strong combined correlation between the financial innovations constructs and growth of mutual fund institutions linked with return on investments and assets under management respectively. The tables also show that the combined constructs explains 17.8% influence growth of mutual fund institutions linked with return on investments while they explains 43.5% growth of mutual fund institutions linked to assets under management. The remaining 82.2% and 56.5% of changes was identified by other factors not captured in the model. The results further suggest that both models are good to improve the growth of mutual fund institutions linked with assets under management because they affected 17.8% and 43.5 respectively.

The model equations; growth of mutual fund institutions linked with return on investment = β0 + β1 Value of intangible asset + β2 net expenditure on research and development; and growth of mutual fund institutions linked with assets under management = β0 + β1 Value of intangible asset + β2 net expenditure on research and development explained 17.8 percent and 46.3 percent respectively as measured by the goodness of fit and hence explained 17.8 percent and 46.3 percent of the variation in growth of mutual fund institutions linked with return on investment and growth of mutual fund institutions linked with assets under management (R square =0.178 and 0.463 respectively).
This indicated that the variables; Value of intangible assets and net expenditure on research and development explained 17.8 percent and 46.3 percent of the variation in growth of mutual fund institutions linked with return on investment and growth of mutual fund institutions linked with assets under management but the remaining 82.2 percent and 53.7 percent of changes are identified by other factors not captured in the model.

Table 5. Model Summary-regression of financial innovation and growth of mutual fund institutions linked with Return on investment.

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.421</td>
<td>0.178</td>
<td>1.157</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), VIA, NEP

The Table 6. presents the coefficient of determination (R-squared) results for effect of financial innovation on growth of mutual fund institutions with return on investment.

Table 6. Model Summary-regression of financial innovation and growth of mutual fund institutions linked with assets under management.

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.681</td>
<td>0.463</td>
<td>0.450</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), VIA, NEP

The adjusted R square was 0.157 and 0.450 which meant that on an adjusted basis, the independent variables were collectively 15.7 percent and 45 percent effective on dependent variable (growth of mutual fund institutions linked with return on investment and growth of mutual fund institutions linked with assets under management). The researcher took note that because a high R-square (coefficient of determination) was more critical in time series analysis, the calculated R-squares for this OLS regressions were satisfying for this research reflecting sufficient validity. The researcher interprets the effect of this particular data set as reflective that mutual fund institutions ranking higher on the financial innovation also have higher growth of mutual fund institutions when measured. Therefore, the support for the hypotheses was found.

Regression Results of Financial Innovation and growth of mutual fund institutions.

The general objective of the study was to determine the influence of Regulatory framework on growth of mutual fund institutions. The Multiple Linear Regression model was used to assess the overall effect of independent variables on dependent variable. The Ordinary Least Squares was used to determine the estimates of the coefficients. One of the problems that may violate the assumptions of Ordinary Least Square regression is multi-collinearity. Multi-collinearity occurs when any independent variable is highly correlated with any of the other independent variables in the regression model. Multi-collinearity was therefore examined by computing tolerance and the variance inflation factor. According to Hair et al., (2010) a small tolerance value indicated that the variable under study was almost a perfect linear combination of the other independent variables in the equation and therefore the variable should not be included in the regression equation. Tolerance is the proportion of a variable’s variance that is not accounted for by the other independent variables in the equation (Garson 2012). Tolerance may be measured by calculating the variance-inflation factor. The rule of thumb is that a VIF should be more than 0.4 for the absence of a serious multi-collinearity problem. Therefore, all the regression model was subjected to statistical collinearity tests which determined that the study variables had a high tolerance level and were free from multi-collinearity since none of the Variance Inflation Factor (VIF) for all the study’s regression models went below 0.5 (Garson 2012).

The analysis in Table 7. presents results on multiple linear regression models. 1. All the constructs namely: Full disclosure and Registration process are statistically insignificant to growth of mutual fund institution linked with return on investment linked with return on investments.

Table 7. Coefficients Regression Results for financial innovation and growth of mutual fund institutions linked with return on investment.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance    VIF</td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.651</td>
<td>244</td>
<td>6.756</td>
<td>0000</td>
<td>0.000</td>
</tr>
<tr>
<td>NEP</td>
<td>-.223</td>
<td>0.193</td>
<td>-.947</td>
<td>1.869</td>
<td>0.055</td>
</tr>
<tr>
<td>VIA</td>
<td>0.217</td>
<td>0.068</td>
<td>0.547</td>
<td>4.408</td>
<td>0.227</td>
</tr>
</tbody>
</table>

a. Dependent Variable: ROI

Regression analysis was conducted to empirically determine whether financial innovation measures i.e. Value of intangible assets, and net expenditure on research, had any significant influence on the growth of mutual fund institutions linked with return on investments in Kenya. Table 7.displays the regression coefficients results of the financial innovation measures i.e.Net expenditure on research and Value of intangible assets and net expenditure on research are statistically significant in explaining growth of mutual fund institution linked with return on investments in Kenya. This implied that the null hypothesis failed to be accepted and the alternative hypothesis failed to be rejected i.e. H₀ is accepted since β ≠ 0 and p-value is less than 0.05.

Y = 2.643 -0.278X₁ + 0.582X₂;

Where: X₁ = net expenditure on research, X₂ = the value of intangible Assets.

This findings is in agreement with Mwangi & Namusonge (2014) which established a link between innovation and business growth. They realized that most of the innovating businesses indicated that they had realized increases in sales, customer base, and change of location and profits in monetary sense. It also concurs with Ngugi et.al,(2013) who also established a link between innovation and growth of firms in Kenya.

Table 8. Coefficients Regression Results for financial innovation and growth of mutual fund institutions linked with assets under management.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance    VIF</td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.651</td>
<td>0.244</td>
<td>6.756</td>
<td>0000</td>
<td>0.000</td>
</tr>
<tr>
<td>NEP</td>
<td>-.223</td>
<td>0.193</td>
<td>-.947</td>
<td>1.869</td>
<td>0.055</td>
</tr>
<tr>
<td>VIA</td>
<td>0.217</td>
<td>0.068</td>
<td>0.547</td>
<td>4.408</td>
<td>0.227</td>
</tr>
</tbody>
</table>

a. Dependent Variable: AUM

Table 8. displays the regression coefficients results of the financial innovation measures i.e.Net expenditure on research and Value of intangible assets and net expenditure on research on growth of mutual fund institutions linked with assets under management.Net expenditure on research and development was found to have no significant influence on
growth of mutual fund institutions linked with assets under management while value of intangible assets was found to have a statistically significant influence on growth of mutual fund institutions linked with assets under management. This implied that the null hypothesis failed to be accepted and the alternative hypothesis failed to be rejected i.e. $H_0$ is accepted since $\beta \neq 0$ and $p$-value is less than 0.05.

The overall regression table shows that financial innovation significantly impact on the growth of mutual fund institutions.

$$Y = 1.651 + .764X_1$$

Where; $X_1 = \text{Value of intangible assets}$.

**Growth of Mutual Fund Institutions Results**

**Descriptive Results of Growth of mutual fund institutions**

Growth of mutual fund institutions was assessed by three measures namely, return on investment, number of firms and Asset under management. Descriptive data shown on Table 9 presents the relevant results on a scale of 1 to 5 (where 5 = Strongly Agree and 1 = Strongly Disagree

Respondents agreed that there has been growth of mutual fund institutions as assessed through return on investment, Assets under management and number of firms. Respondent posted a mean of 3.67 meaning that they agreed with these opinion statements. On the increase on firms, the respondents posted a mean of 3.70 implying an agreement with the opinion statements and for asset under management, the respondent posted a mean of 3.54 indicating an agreement with the opinion statements. On the other hand respondent were neutral on steady increase on net asset value. Therefore, on average, most of the respondents agreed that there has been growth in terms of return on investment, asset under management and number of firms. These findings were consistent with the findings by Olando et al. (2012) who reported that return on investment determine the long-term growth of a company. Mwangi & Njuguna (2014) also concurred with this findings that return on investment is a good indicator of profitability. Ahmed et al., (2015) posted that asset under management is a good measure of growth of mutual fund institutions.

**Table 10. Descriptive results of growth of mutual fund institutions.**

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Growth of mutual fund institutions</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>Return on Investment</td>
<td>82</td>
<td>2</td>
<td>5</td>
<td>3.67</td>
<td>.101</td>
</tr>
<tr>
<td></td>
<td>Asset under management</td>
<td>82</td>
<td>2</td>
<td>5</td>
<td>3.50</td>
<td>.121</td>
</tr>
<tr>
<td>Cronbach’ Alpha</td>
<td></td>
<td>.885</td>
<td></td>
<td></td>
<td>.814</td>
<td></td>
</tr>
</tbody>
</table>

Key: Ranked on a scale: strongly disagree (1.0-1.7), disagree (1.8-2.5), indifferent/neutral (2.6-3.3), agree (3.4 - 4.1) and strongly agree (4.2-5.0).

From Table 10 above, the first component/dimension was named as growth of mutual fund institutions linked with return on investment and the second component/dimension as growth of mutual fund institutions linked with asset under management. Growth of mutual fund institutions linked with return on investment was agreed with a mean of 3.6707 and cronbach alpha of 0.885 which was far beyond the minimum threshold of 0.7 whereas growth of mutual fund institutions linked with asset under management had agreed with a mean of 3.508 by the respondents and Cronbach alpha of 0.814.

I suggest the inclusion of growth factor analysis.

**Secondary Data**

Secondary data was collected from various sources including but not limited to; Capital Market Authority reports, both audited income statements as well as statement of financial positions of various funds, Africa asset management 2020 among others from 2006 to 2116. The data collected was edited, cleaned, summarized and presented as follows:

**Figure 2. Comparison on assets under management.**

Figure 2. shows that the assets under management of mutual fund institutions has been growing steadily. The growth was very minimal during the period 2006 to 2009. This is probably due to the fact that mutual fund concept was new having been legalized in 2001. The period following 2009 saw the industry experiencing a tremendous growth rate. This can be attributed to more investors becoming aware of the existence of MFI’s.

**Figure 3. comparison of return on investments.**

Returns on mutual fund investments has fluctuated over the period, though on average they have an upward trend. The rates have been between 8% and 13%.
The aim of this study was to determine effect of financial innovation on growth of mutual fund institutions in Kenya. The conclusions were based on the objective of this study.

Managerial Recommendations

The findings of the study on drivers of mutual fund institutional growth extended the frontiers of knowledge by generating valuable insights for both academic and managerial action. Therefore, the results of this study are of interest to managers of fund institutions as well as individual investors. The study established that affordability construct is the most influence in this category. Management should therefore ensure that the cost of investing in mutual fund products are reduced as much as possible. This is in line with the income level of the targeted investors. In Kenya most of the investors come from low to middle level income earners. Management of these funds may have to borrow from the Kenyan government move of reducing the cost of investing in the treasury bills by developing m-akiba bond which goes at a minimum cost of sh.3,000 down from a minimum of sh.50,000. This resulted in over-subscription of the first batch of M-Akiba bills.

Policy Recommendations

The policy issues highlighted in this study include the tax incentive, regulatory framework as well as financial market liquidity. Tax incentives have always played a pivotal role in influencing investment decision. Smart investors always look at how best to reduce his tax burden resulting from his investment income. An individual investor has no control over the tax structure. This is a preserve of the Government. The investor has to study tax structure carefully in order to take advantage of its provisions. As a matter of policy, the government should develop tax structures which encourage investors in mutual fund products. This will help accumulate the much sought for capital for industrial take-off.

Liquidity of financial markets hinges on development of the market. The government needs to come up with policies that would help improve, information efficiency of the market, transaction as well as location efficiency. The penalties for unethical trading should be clearly spelt out and circulated to all stakeholders. Since most of the mutual fund products are financial products, investors miss out on what is happening behind the curtains. Fund managers therefore have to strive to serve the interest of investors.

SUGGESTIONS FOR FURTHER RESEARCH

Future studies can focus on conducting a multi-country comparison to test the influence of the identified drivers on growth of mutual fund institutions. A comparative research may also be done on using the same variable but from the investors’ point of view. For example perception was looked at from the institutional view that is how the institutions have influenced the investors’ perception. This study focused only on registered mutual funds. It should be pointed out that there are those funds which are not formally registered.

REFERENCES


