

Performance Evaluation of Closed Ended Mutual Funds in Pakistan

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ABSTRACT:

Mutual funds are the best tool to mobilize savings and investments in an economy and Pakistan is the pioneer in South Asia, but this industry is not as much mature in comparison to its age in Pakistan. This paper examines the performance of closed ended mutual funds in Pakistan by using five different ranking measures during a period of January 2009 to December 2013 and the sample consists of only five closed mutual funds. Ranking measures used in this study include Sharpe, Treynor, Sortino, Information and Jensen Alpha. Closed ended mutual funds are characterized by underperformance during this period. Results for Treynor and Information measures portray satisfactory performance while other measures report strong underperformance on the part of mutual funds. Fund managers should opt for less risky and more diversified portfolios as this will lead to the better performance of mutual funds because the extent to which diversification will be achieved will cause funds unsystematic risk to fade away and the only risk faced will be the systematic risk.

Keywords: Sharpe, Treynor, Sortino, Information, Jensen alpha, Mutual fund performance

INTRODUCTION

Mutual funds allow small investors to invest in more efficient and effective portfolio that is managed by the financial experts. Every investor mainly focused on the way that how to minimize the risk and maximize the returns so one of very feasible way to acquire that desirable goal is through mutual fund. It is common saying that putting all of your egg in a single basket is always dangerous so everyone tries to put the eggs in different baskets this is also known as diversification. So, through mutual funds the advantage of diversification is also achieved. Mutual fund also aids in searching the different investment opportunities for the small investor who haven't enough time or lack of resources to find it out. There are some of investments where the small investor can not invest directly due to

insufficient resources but mutual fund make it accessible for them basically it's the pool which is made up of the funds of different investors and then the portion of these funds is invested in different securities i.e. bonds, stocks etc. to attain the basics of diversification.

Experts that are controlling the funds and making decisions about the investments are called fund managers who are also responsible for investing in any of the business that seems appealing to them. As one of the main functions of mutual fund is to reduce the unsystematic risk, it is good to let fund managers to do that task and mutual funds owner must have trust on relying them of doing their job of finding the investment which is less risky and having appropriate return.

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National Investment Trust (NIT) in 1962 created the mutual fund's territory in Pakistan where open ended funds are traded and later on the formulation of the Investment Corporation of Pakistan (ICP) in 1966 was a good threshold which dealt with close ended fund. Mutual funds are divided in to two types one type is on the behalf of structure which involves open ended fund and close ended fund and other is on the behalf of category of investments included which contains funds of funds, income fund, Islamic fund, equity fund and etc.

Close ended funds are described as the funds that are first offered to public and then traded between the different investors in the secondary markets. This research concludes the performance and evaluation of only close ended fund and main focus is laid on closed ended fund and their evaluation in accordance with the Pakistani stock market and to check whether the performance of closed ended fund is satisfactory or lagging behind. Many of the researches have been conducted in the perspective of mutual fund performances like (Sipra 2006; Afza and Rauf 2009) and main conclusion of these researches was that the performance of mutual funds are not up to the mark let give another try to check the performance that whether the close ended funds are playing their parts or not.

Main focus of this study is on the performance evaluation of the closed ended mutual funds and data that has been used is from Jan 2009 to June 2013. Sharpe ratio, Treynor ratio, Sortino ratio, Information ratio, Jensen alpha these ratios are used to rank the performances of the funds.

Literature Review

Lot of work is being done on mutual fund performances and still mutual fund has been studied in worldwide there is lot of debates on how to manage the mutual funds in more effective and efficient ways whether small mutual funds work better or large number of funds performs better. Gorman (1991) said that the performance of small mutual fund is comparatively better than the performance of large mutual funds. Study of the researchers like Becker and Vaughan (2001); Chen et al. (2004) also found the similar results that the mutual fund increases the pace of economy's growth quickly but as time passes the growth in the

economy slows down. Soderlind et al. (2000) another researcher from the Swedish economy also found that the performance of small mutual fund is quite impressive when he measured the relationship between mutual fund size and mutual fund performances as compared to large mutual fund.

Brown (1995) worked on the perspective of efficient market hypothesis US annual mutual funds returns that whether EMH is applicable to mutual funds or not but ironically the result shows that mutual funds are following a trend and the returns of past mutual fund performances can be used to predict the future outcomes of mutual funds. Livingston and O'Neal (1998) have studied on the expenses of mutual funds as already discussed that mutual funds give a short time increase in the economy but later on it speeds decreases so it should be pondered that whether mutual funds are able to manage their expenses or not so the researches of above mentioned researches pointed out the future returns and the expenses showing negative trend.

Ippolito (1989) conducted a study according to his research mutual funds generally have appealing returns as compared to other investments but these returns are compensated by load charges and the expenses of diversification. Chalmers et al. (1999) argue that there is negative relation between the returns of mutual fund and the cost that occurs in trading mutual funds transactions.

Sipra (2006), mentioned that in Pakistani scenario there is low positive relation between the mutual funds and effective portfolios where USA studies suggests the positive relationship between portfolios and mutual funds. Afza and Rauf (2009) also conclude that the relations between the mutual funds portfolio and diversification are also not so much impressive and the reverse reaction is being seen as compared to rest of the world scenarios.

Nafees et al. (2012), in their work of evolved that it is necessary to make efforts to popularize this sector among masses, so that saving can be mobilized and new avenues for investment should be explored. The asset management industry of Pakistan is still in its infancy stage and unfortunately it has to face tough macroeconomic challenges, which are affecting financial market in general and mutual funds market in particular.

Mahreen and Mirza (2011) in their research work founded that Pakistan is a classic emerging market, still struggling to develop its capital market and a regulatory framework, and still experimenting to find the right mix. So, the results have shown negative impacts in accordance with their respective benchmarks, which is not surprising given the evidence from across the world and Islamic funds, the fastest growing fund category and backed by people's religious affiliations are still struggling to find a stronghold and yield a steady return.

Bushra et al. (2011) founded that the results are worst in case of recession state of stock market. It indicates that fund managers are not performing their job in an efficient way.

Sipra (2006) in his work resulted that there is low correlation in the Pakistani case which suggests that the mutual funds are not doing a very good job of diversification. Iqbal and Qadeer (2012) investigated the performance of closed-ended mutual funds in Pakistan as compare to stock market and found that all funds have positive diversification except Asian Stock Fund which represents the extra return the portfolio is not earning well investors should be careful in investing in mutual funds while choosing and investing in mutual funds due to market instability.

Shah and Hijazi (2005) results suggest that mutual funds in Pakistan are able to add value and also show some of the funds under perform, these funds are facing the diversification problem so The need of an hour is to mobilize saving of the individual investors through the offering of variety of funds (with different investment objectives).

Lohana (2013) in her work evaluated that average monthly returns of public and private funds are equal, in randomly selected funds. Ali et al. (2013) resulted that after applying multiple regression model the results illustrates that in Pakistan the return on mutual funds is better than the benchmarks return and there is a positive relationship in between the Karachi stock exchange measured returns and open ended mutual funds rather than close ended.

Majid et al. (2012) in founded there is a significant relation in small cap stock mutual funds and Jensens differential ratio and ANOVA says that all variables are not significantly different from each other , So it is concluded that

size of mutual fund does not matter in performance of mutual fund.

Gul et al. (2012) resulted as by Sharpe ratio it's clear that return of mutual funds is related to the level of risk while Treynor ratio helps to determine that people avoid to invest in risky securities and informational ratio describes that excess return is related to risk so that risk is a big determinants of return in mutual funds.

Hypothesis

H₀: Closed ended mutual funds are better performers as compared to KSE 100 index.

H₁: Closed end mutual funds are not better performers as compared to KSE 100 index.

RESEARCH METHOD

Data and Sample Collection

The sample is taken from the narrow range of closed ended mutual funds available for this study period which constitutes five portfolios for a period of five years which consists of data ranging from July 2009 to June 2013 and the benchmark used in this study is KSE 100 index. Five ratios have been used to analyze the performances of closed ended mutual funds. Data for mutual fund returns is collected through the website www.mufap.com.pk and the risk free rate is obtained through the websites www.fmap.com.pk and www.kse.com.pk.

Measurement Ratios

Following performance measures have been used to find out the performance of closed ended mutual funds.

1. Shape ratio
2. Treynor ratio
3. Sortino ratio
4. Jensen's alpha
5. Information ratio

Sharpe Ratio

The Sharpe ratio is derived from the William shape in 1966 it's been very popular due to simplified calculation this ratio is pivoted around three components.

$$= (R_p - R_f) / \text{Std Dev}$$

1. Average portfolio return (R_p)
2. Risk free return (R_f)

3. Standard deviation of expected portfolio returns (Std Dev)

In our work we've found the values by subtracting the previous values from the current values and then dividing the result with previous mean is calculated in excel by using statistic formula and standard deviation is also calculated through excel on a yearly basis.

Treynor Ratio

Treynor ratio is derived by Jack Treynor this ratio is also known as reward to volatility ratio and this ratio is same as Sharpe ratio, but the main difference is that in the Treynor ratio beta of the portfolio is used instead of standard deviation.

Beta is calculated through the correlation between the return of the KSE index and closed ended mutual funds return with the aid of statistical formula.

$$T = (R_p - R_f) / \text{Beta}(p)$$

R_p is the return of the closed ended fund

R_f is the risk free return same period as of R_p

Beta (p) is the beta of the closed ended portfolio return

Sortino Ratio

This ratio is derived by Frank A Sortino and this tells about the bad and good volatility being analyzed in Sharpe Ratio and the differentiation between these up and downward valuation shows the measure of risk adjusted returns or by neglecting the upward performance of the funds, this ratio used the deviation of negative returns as compared to the standard deviation used in Sharpe ratio.

$$S = (R_p - R_f) / DR$$

Where R_p is the expected return

R_f is the risk free return

DR is the down side returns

Jenson's Alpha

It is developed by Jenson in 1966 and it shows that whether you return is above over the price realized through CAPM if the return is excess, then the expected this shows good return and if the return is not so much then one has to beat the market to get excess return. In other

word this ratio calculates the risk of the portfolio by differentiating the expected and realized return of the portfolio

$$R_p - R_f = \alpha + \beta p (R_m - R_f) + E_t$$

Where R_p is the expected return of the portfolio

R_f is the risk free rate

βp is the beta of the portfolio

R_m is the market return expected

E_t shows error term

Information Ratio

This ratio is used to find out whether the benchmark is beaten or not this also enables to check out the consistency of the performances of the portfolios in this ratio the average return is calculated then compared it with a benchmark and then dividing it by risk of excess return.

$$IR_p = \sum(R_p - R_f) / \sigma(R_p - R_f)$$

$\sum(R_p - R_f)$ shows Excess Return

StdDev ER is the Standard deviation of excess return $\sigma(R_p - R_f)$.

KSE 100 index is the benchmark used in this study the return of the closed end mutual fund is subtracted from the benchmark return and then standard deviation of excess return is calculated.

RESULTS AND DISCUSSION

According to this finding it's evaluated that Golden Arrow Selected Stock Fund performances is excellent rather than the rest of closed ended funds. Ironically it is noted that the KSE performances is not up to the mark and lags behind the under study funds which shows that the closed end funds performances has no matches with KSE and the returns of funds are better than market returns. As far as the element of risk is concerned Pak Oman advantage fund is less risky than rest of understudied funds where as the more risky fund is PICIC Growth Fund (table 1).

Results in table 1 are concluded according to Sharpe ratio, PICIC Growth fund performance is exceedingly good as compared to the rest of the funds and has been ranked as 1st and at the opposite end the worst of all understudied fund is Pak Oman Advantage Fund and is ranked last at 5th number. Golden Arrow Selected Stock Fund is ranked as 2nd and as far as PICIC

Growth Fund is concerned this is ranked as 3rd and NAMCO balanced fund evaluation makes it to stand at 4th place (table 2).

The consequential results show that NAMCO Balanced Fund performance is quite excellent and is being ranked at 1st place in all of under discussed performances of the funds and the

worst of all is Pak Oman Advantage Fund is being placed at 5th position. 2nd place is achieved by Golden Arrow Selected Stock Fund and the performance of PICIC Growth Fund enables it stand at 3rd position PICIC Investment Fund finalized itself to stand at 4th position (table 3).

Table 1: Descriptive statistics

Fund Name	Average Return	Minimum	Maximum	Standard deviation
1. Golden Arrow Selected Stock Fund	0.017479	-0.1622	0.177485	0.069878
2. Namco Balanced Fund	0.005553	-0.1791	0.128535	0.056787
3. PAK Oman Advantage Fund	0.001798	-0.08275	0.063605	0.027022
4. PICIC Growth Fund	0.014272	-0.19505	0.247024	0.073295
5. PICIC Investment Fund	0.01361	-0.19607	0.23652	0.070439
6. Karachi Stock Exchange	-0.02622	-0.18047	0.111655	0.052936

Table 2: Results for Sharpe ratio

Fund Name	Average Return	Standard deviation	Sharpe Ratio
1. Golden Arrow Selected Stock Fund	0.01747	0.06987	-0.12233(2)
2. Namco Balanced Fund	0.00555	0.05678	-0.16649(4)
3. PAK Oman Advantage Fund	0.00179	0.02702	-0.35975(5)
4. PICIC Growth Fund	0.01427	0.07329	-0.11902(1)
5. PICIC Investment Fund	0.01360	0.07043	-0.12509(3)

Table 3: Results for Treynor ratio

Fund Name	Average Return	Beta	Treynor Ratio
1. Golden Arrow Selected Stock Fund	0.01747	-0.5118	0.03656(2)
2. Namco Balanced Fund	0.00555	-0.26233	0.04279(1)
3. PAK Oman Advantage Fund	0.00179	0.08241	-0.11674(5)
4. PICIC Growth Fund	0.01427	-0.65391	0.02921(3)
5. PICIC Investment Fund	0.01360	-0.65026	0.02863(4)

Table 4: Results for information ratio

Fund Name	Excess Return (ER)	S.D Of ER	Information Ratio
1. Golden Arrow Selected Stock Fund	0.04370	0.10297	0.42439(2)
2. Namco Balanced Fund	0.03177	0.08673	0.36635(5)
3. PAK Oman Advantage Fund	0.02801	0.05534	0.50631(1)
4. PICIC Growth Fund	0.04049	0.10909	0.37116(4)
5. PICIC Investment Fund	0.03983	0.10710	0.37189(3)

When Information Ratio is used it is noted that there is no negative result, which shows a positive sign to their performances. Pak Oman Advantage Fund performs exceptionally well and stands at 1st place the worst result is being observed at 5th position of NAMCO Balanced Fund. 2nd position is being covered by Golden Arrow Selected Stock Fund PICIC Investment Fund makes itself to stand at 3rd and 4th position is registered by PICIC Growth Fund (table 4).

According to above mentioned table the obvious results are being observed which depicts that the best of all is PICIC Growth Fund and stands at 1st place and the poorer of all is Pak Oman Advantage Fund and is being placed at 5th position 2nd position is kept by PICIC Investment Fund 3rd position is achieved by Golden Arrow Selected Stock Fund and NAMCO Balanced Fund secured 4th position (table 5).

A positive value of Jensen Alpha shows the good performance but unfortunately in this case no positive value is being observed which points a question on the performance of these funds. Anyhow best of these all is Pak Oman Advantage Fund which is placed at 1st position and the last of all is PICIC Investment Fund

which stands at 5th position Golden Arrow Selected Stock Fund stands at 2nd position 3rd position is secured by NAMCO Balanced Fund PICIC Growth Fund is being kept at 4th position (table 6).

CONCLUSION

This study concludes that there is no consistency in the performance of funds and they shows varying and mixed results for instance PICIC Growth Fund conceived 1st place at Sharpe and Sortino Ratio whereas in other ratios fluctuating performance is being observed. In the case of Pak Oman Advantage Fund acquired the last position in Sharpe ratio, Treynor ratio and Sortino Ratio in contrast in Information ratio and Jensen Alpha it comes at 1st place. As far as the matter of performance of NAMCO Balanced Fund is concerned it scores 1st at Treynor Ratio and 5th in Information Ratio. PICIC Investment Fund acquires the worst position according to Jensen Alpha. It is suggested that Fund Managers should do their job in diversifying the risk by investing in number of funds and try to figure it out that whether their security selection policies work or not and try to adjust their risk in more effective and efficient manner.

Table 5: Results for Sortino ratio

Fund Name	S.D of D.R	Sortino Ratio
1.Golden Arrow Selected Stock Fund	0.08391	-0.09894(3)
2. Namco Balanced Fund	0.08817	-0.10524(4)
3. PAK Oman Advantage Fund	0.03166	-0.3067(5)
4. PICIC Growth Fund	0.10100	-0.08246(1)
5.PICIC Investment Fund	0.099232	-0.08485(2)

Table 6: Results of Jensen Alpha ratio

Fund Name	Jensen Alpha
1.Golden Arrow Selected Stock Fund	-0.01112(2)
2. Namco Balanced Fund	-0.01404(3)
3. PAK Oman Advantage Fund	-0.0051(1)
4. PICIC Growth Fund	-0.01964(4)
5.PICIC Investment Fund	-0.02017(5)

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