Does Funds' Turnover Effect Close-Ended Mutual Funds' Performance? Evidence from Pakistani Mutual Fund Industry

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Abstract

This study is undertaken to evaluate the impact of funds' turnover on their performance. For this purpose the close-ended mutual funds, listed in Mutual Funds Association of Pakistan, are selected. The semi-annual data are used for the time period from 2008 to 2012 which are extracted from the close-ended funds' financial reports. Simple linear regression, using SPSS, is applied to analyze the impact of funds' turnover on their performance. The study finds significant positive relationship between funds' turnover and their performance.

Key Words: *Mutual fund, turnover, performance, Pakistan*

Introduction

In 1962 mutual funds were introduced in Pakistan by the public offering of National Investment Trust. Presently NIT is being operated as the only open-ended mutual fund in public sector of Pakistan. After NIT another fund, Investment Corporation of Pakistan was formed in 1966 and floated 26 close-ended mutual funds. In 2000, Government decided to reconstruct the corporations, and in 2002, it started the privatizations of ICP. From the 26 mutual funds, 25 mutual funds were divided in two lots. ABAMCO limited acquired the first lot containing 12 funds out of which 9 were merged in close ended funds with the title name as ABAMCO Capital fund. Remaining three funds were merged into another fund with the title of ABAMCO Stock Market Fund. On the other hand, the second lot was acquired by PICIC Assets Management Company Ltd. containing 13 ICP Funds. These funds were merged into a single close-ended fund with the title of PICIC Investment Fund. After than PICIC acquired another Fund (ICP SEMF) which was declared as a new close ended fund named PICIC Growth fund in the extraordinary general meeting of certificate holders on 16th June 2004. It was authorized by SECP on 20th July 2004.

Presently there are 130 open-ended and 14 close-ended mutual funds operating in private sector (MUFAP, March 2013) and SECP is the regulatory body of all types of mutual funds in Pakistan. In Pakistan, mutual funds are increasing in numbers as they provide the diversification opportunity to investors. Small investors don't have sufficient skills and resources to keep an eye on the management of their investment so they prefer indirect investment. Mutual funds give

the opportunity to small investors to invest in a professionally managed investment entity and also to take advantage of the diversification as well as potential for higher returns.

In Pakistani financial markets different categories of mutual funds are available e.g. Islamic funds, income funds, equity funds, balanced funds, asset allocation funds, fund of funds, index tracker funds and money market funds. This provides an opportunity to small investors to select from a variety of alternatives to better match their requirements. The current study is about the impact of funds' turnover on their performance. Currently, there are two divergent views about turnover and performance. One view is that financial markets are overall efficient and higher turnover increases the transaction cost of the fund without giving sufficient benefit and therefore the performance of the fund decreases as the turnover increases. While the second view is that market are not highly efficient and based on knowledge and experience funds' managers can identify occasions when to buy or sell. This active management of the fund brings higher returns even after paying higher transaction cost. The current study is about these two divergent views of funds turnover and performance. This will be helpful for fund managers as well as for investor to make appropriate decisions regarding funds' management and investment.

Literature Review

Many researchers analyze the impact of turnover on performance of funds e.g. Carhart (1997) finds negative relationship between mutual funds turnover and return in US mutual fund market. By taking the

Swedish mutual funds which are invested in Swedish Securities and by taking the data for the period 1993-1997 Dahlquist et al (2000) perform a study to examine fund management fee, turnover ratio, past performance and fund size have relation with performance. Their study opines that the funds which have higher turnover ratio perform well as compare to those funds which have low turnover ratio. Whereas, Friend, *et al.* (1970) document the slight positive relationship between risk adjusted fund returns and turnover. Brennan, Chordia & Subramanian (1998) find significant negative relationship between trading volume and fund return. By taking the data from the period 1963 to 1991, Datar, Naik & Radcliffe (1998) employ turnover ratio and document that the stock returns have negative relationship with turnover ratio even after controlling size and book to market risk premium. They also state that the turnover ratio is ideal substitute for liquidity as its data are easy to obtain and it has strong theoretical background and support. They find no evidence of other factors like seasonal effect by taking the data from the period 1986 to 1993 Claessens, Dasgupta & Glen (1995) investigate the returns by using many variables which include price to book value, earning to price, exchange rate, market returns, turnover and size. They document that turnover and size have descriptive power in stock returns in different countries.

Ippolito (1989) also examines the overall efficiency of mutual fund industry by taking 143 US mutual funds and by using data over the period 1965 to 1984. Using Jensen measure for performance evaluation and to investigate the impact of expenses and turnover on performance, he finds that the management fee and turnover are not

related to performance of fund. Rakowski (2002) using daily data, documents that the returns are strongly influenced by turnover.

By taking 69 Malaysian equity funds which includes 25 Islamic and 44 conventional funds, Pui See and Jusoh (2012) conduct their study to examine the characteristics that effect mutual fund performance on the data of five years. They examine the effect of expense ratio, fund age, turnover ratio, fund size and risk. They find that turnover ratio and expense ratio have significant relationship with fund performance.
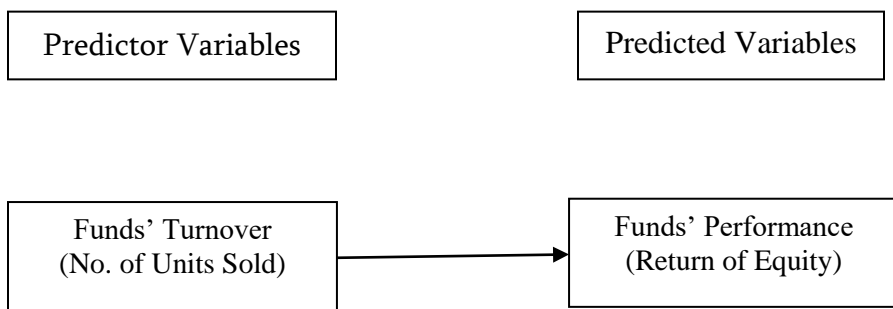
Wermers (2000) investigates the American registered Funds which are invested in American securities. By using the data for the period 1975-1994, he investigates the relationship between turnover and fund size with returns and document that the funds having high turnover ratio are earning more and have more risk-adjusted returns as compare to funds which have low turnover ratio. Elton, Gruber, Das, and Hlavka (1993) in their study find that risk adjusted returns have negative correlation with turnover and expense ratio when there is difference between the performances of small capitalization. Khorana (1996) in his study documents that before changing in management the portfolio turnover of a fund must be relatively high which reflects herding behavior.

Abbasi, Kalantari & Abbasi (2012) conduct their study to examine the relationship of turnover with performance. They use Multiple and Combined ANOVA and find significant positive relationship between turnover ratio and performance. Whereas, Droms & Walker

(1996) in their study, find that expense ratio and turnover are negatively correlated with fund performance.

Dellva & Olson (1998) in their study find significant positive relationship between turnover fund performances at 1 percent significance level.

Theoretical Framework

Predictor Variables		Predicted Variables

Funds' Turnover (No. of Units Sold)	→	Funds' Performance (Return of Equity)

Hypothesis

H_1: Fund's Turnover has significant impact on Fund's Performance.

Methodology

Population and Sample Size

The population of the study consists of all close-ended mutual funds listed in MUFAP. Total 13 close-ended mutual funds are listed in MUFAP. 12 close-ended funds, from a total of 13, have been selected which are having their data publicly available.

Independent Variable

In this study "turnover" is the independent variable. It is the total trading of a fund on semi-annual basis. It can be sales or purchases and can also be calculated through other ways like by dividing the sum of sales and purchases with the average of opening and closing units and by taking the number of shares being traded or volume of amount being traded. In this study we have taken total units sold in a particular period as turnover. The log value of the total share traded is used as an independent variable in this study.

Dependent Variable

Performance can be measured through many ways like by examining the changes in share prices, Return on Assets (ROA) and Return on Equity (ROE). In this study we have taken ROE as the dependent variable. It is calculated by dividing Net Income with Shareholders Equity. Though it is an accounting measure of performance but it is widely used and supported by historical literature in the field of finance. In a country like Pakistan, where stock exchanges are very volatile, accounting based measures of performance are preferred over market produced data.

$$\text{ROE} = \frac{\text{Net Income}}{\text{Shareholder Equity}}$$

Data Collection

Five years semi-annual data are used in this study for the period January 2008 to December 2012. The data are extracted from the companies' online databases and financial reports.

Data Analysis

To test the underlying hypothesis, ordinary linear regression is used. SPSS is used to run the regression and other statistical tests.

Discussion of empirical results

Before running the regression the data were checked for normality and autocorrelation. Based on the values of Skewness and Kurtosis the data were found normal. Similarly, based on the Durbin-Watson value no autocorrelation was found, therefore, the data are suitable for regression and other statistical tests. These tests are not reported here but are available to interested readers on demand.

The table 1 shows the value of R, R square and Adjusted R square. The value of R is 0.465 while the values of R square and Adjusted R Square are 0.216 and 0.210, respectively. So the coefficient of determination shows that 21.0% of the variation in a fund's performance is explained by the fund's turnover. Although this may not be high value of coefficient of determination but keeping in view a single explanatory variable, turnover, it is a reasonable value. To further support this, the F-value and its significance in table 2 show that the overall model is fit for this test and also statistically significant.

Table 1
Model Summary

Model R		R Square	Adjusted R Square	Std. Error of the Estimate
1	.465	.216	.210	.26741

a. Predictors: (Constant), Turnover

b. Dependent Variable: ROE

The table 2 shows the overall model fitness which is also a measure of statistical significance of the coefficient of variation. The F-value is 32.545, which is statistically significant at 0.01.

Table 2
ANOVA Results

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.327	1	2.327	32.545	.000
	Residual	8.438	118	.072		
	Total	10.765	119			

a. Predictors: (Constant), Turnover

b. Dependent Variable: ROE

Table 3 shows the beta coefficients and their statistical significance for the independent variable(s). In the coefficients table the beta coefficient of Turnover is 0.119 with a standard error of 0.021. So the t-value is 5.705 which significant at a p-value of less than 0.01. It means the Turnover has significant positive relationship with ROE of mutual funds in Pakistan.

Table 3
Coefficients of the Variables in Used in the Model

Model		B	Std. Error	Beta	t	Sig.
		Unstandardized Coefficients		Standardized Coefficients		
1	(Constant)	-.837	.144		-5.822	.000
	TURNOVER	.119	.021	.465	5.705***	.000

a. Dependent Variable: ROE

***Significant at 0.01 level

Conclusion

The study was undertaken to examine the impact of mutual fund's turnover on its performance and finds significant positive relationship between them. The positive relationship means that funds having high turnover perform better as compare to those having low turnover in Pakistan. The results are also supported by the different researchers who also find significant positive relationship between funds turnover and fund's performance e.g. Wermers (2000), Dalquist *et al.* (2000) and Rakowski (2002). The findings of this study can be associated with relatively lower market efficiency in Pakistani. So those fund's managers who are actively manage their funds' portfolio are better than passive fund managers. Although, those managers who turnover the funds' portfolio more frequently bear more transaction costs but the benefits they generate for the

funds are even greater so it offset the additional costs and also give benefits to the investors.

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