

The Determinants of Mutual Fund Growth in Pakistan

Mian Sajid Nazir

*Assistant Professor, Department of Management Sciences
COMSATS Institute of IT, Lahore, Pakistan
E-mail: sajidnazir2001@yahoo.com
Tel: +92 322 4569868*

Muhammad Musarat Nawaz

*Lecturer, Hailey College of Commerce
University of the Punjab, Lahore
Pakistan*

Abstract

Mutual Fund industry plays a pivotal role in optimal allocation and channelization of available idle resources in the economy. This role becomes much stronger in the developing economies like Pakistan where the prospective investors do not have much investment knowledge, information, and facilities to invest in the capital markets neither they have risk aptitude for direct investments in risky stocks. The present study is pioneer in its nature to investigate the role of various factors in determining the mutual funds growth in Pakistan. The panel data for the period of 2005-2009 has been used for 13 family equity mutual funds and fixed effect and random effect models have been applied for estimation of determinants of mutual funds growth in Pakistan. The results have reported that assets turnover, family proportion, and expense ratio are positively leading the growth of mutual funds, in contrast with management fee and risk adjusted returns which are negatively associated with mutual funds growth.

Keywords: Mutual funds, determinants, growth, management fee, expense ration, family proportion, Pakistan

JEL Classification Codes: G11, G12, G23, G24, G32

1. Introduction

Mutual funds play an essential role for channelizing and optimal allocation of idle resources/savings available in the economy of the individual as well as institutional investors. The mutual funds are asset management companies which invest in stocks, bonds and other types of money market or combination of these securities. The primary goal of mutual fund is pool small savings, use the idle resources in corporations and invest in a well diversified portfolio of securities, which would allow the investor to significantly reduce, or even eliminate the asset specific (non market) risk of securities. The presence of these mutual funds becomes even more essential when the investors/savers do not have much investment knowledge, information and investment climate and facilities as well as have low risk-tolerance level which is a very dominant characteristic of Pakistani capital market (Afza and Rauf, 2009).

Increased number of mutual funds all over the world, mainly in developed countries, is an indication of investors' preference for this indirect mode of low-risky investment (Huhmann, 2005). During the past few decades, the mutual fund industry has experienced a tremendous growth, whereas, mutual fund is still a recent phenomenon in emerging markets. This tremendous growth has led to the creation of various types of mutual funds. These types can be categorized in two broad segments: open-ended and close-ended. The open-ended funds are the funds whose redemption and subscription of shares, which are also called units, is allowed on continual basis. These funds are also characterized as having no customers but the shareholders only. The close-ended funds, on the other hand, all called up and subscribed only once at the commencement of the fund and then traded in the secondary capital markets between the general public.

In general, the mutual funds are established and incorporated to benefit small investors who cannot invest directly in money market or capital market securities due to any reason discussed earlier. For this purpose, mutual funds are incorporated under the umbrella of an asset management company which is also called mutual fund group or family. The history of mutual funds in Pakistan is as old as 1962, when units of National Investment Trust was first offered to public, which is up till now, the only open-ended mutual fund of public sector operating in Pakistan. Afterwards, with the commencement of Investment Corporation of Pakistan, series of close-ended mutual funds were offered to general public, and later on, it was privatized in June 2000. Currently, there are 43 open-ended and 22 close-ended mutual funds operating in the private sector of Pakistan (Afza and Rauf, 2009).

Although, Pakistan has experienced a phenomenal growth in mutual funds industry with net asset value increased from Rs.16 billion in 1999 to Rs.137 billion in 2005. However, this domestic industry is still in tiny size as compared to other regional mutual fund industry where Pakistan holds only 1.33% mutual fund assets in primary securities in comparison to India with 3.7%, Malaysia 4.0%, Hong Kong 20.3% and South Korea 16.5% (Khorana et al., 2005). These numbers show that Pakistan mutual industry has significant room to grow. The present study aims at finding out various determining factors of this growth of mutual fund industry in Pakistan. The variables used as determinants are management fee, assets turnover of funds, size of fund, the proportion of fund in the family, expense ratio and risk-adjusted rate of return as measured by sharp ratio. Hence, the present study is pioneer in its nature to investigate into the determinants of mutual fund growth in Pakistan.

The remainder of the paper is organized as follow: section 2 deals with some related literature regarding mutual funds. Section 3 highlights the study variables, their measurement, statistical techniques used and data sources, which is further followed by results in section 4 and conclusion and discussion in section 5.

2. Literature Review

There exist immense research literature on the mutual fund industry, however; academic opinion on determinants of mutual fund is generally critical. Bogle (2004, 2005) pointed out that the average cost of owning mutual funds has risen over 100 percent in the last sixty years. Freeman and Brown (2001) found that mutual fund advisory fees alone are excessively high. In their view the mutual fund industry is dominated by conflicts of interest where the mutual fund boards fail to negotiate arms-length management contracts with asset managers. In their view asset managers are over compensated for the services that they provide. Similarly Ang et al. (1998) argued that the primary benefit that managers can provide to the shareholders is the reduction of expenses. The reason is that management has more control over expenses than over any other aspect of the return to the shareholders. Therefore, if managers are not working to reduce expenses they are failing to carry out their primary duty to the shareholders.

Golec (2003) found that fund managers are compensated primarily on the basis of a percentage of the assets under management. That compensation scheme provides fund managers with a strong incentive to grow fund assets regardless of the degree to which such growth is consistent with shareholder welfare. Collins (2004), Livingston and O'Neal (1998) and O'Neal (1999) argued that some investors pay to receive professional investment advice and assistance in the purchase of mutual funds. Essentially they found that brokers provide some combination of resolving asymmetric information for investors and providing a needed service in completing and maintaining the required records in order to complete the investing process. They closely examined the issue of whether brokers primarily resolve asymmetric information or primarily provide investors with record completion and maintenance services. One way to grow the assets is to well manage the fund by the fund management of that varies funds. Management fees provide a source of funds for controlling and managing the funds.

In the study of Sipra (2008), one of the interesting things to note is the low correlation between the funds and the market portfolio. In US studies the correlation between the market and mutual funds is often 0.9 or above. A high correlation with the market is an indication of a high degree of diversification (Afza and Rauf, 2009). The low correlation in the Pakistani case suggests that the mutual funds are not doing a very good job of diversification. The low correlation and also the low betas are probably due to inclusion of fixed income securities such as the Term Finance Certificates (TFCs) in the portfolios of these funds. Since the composition of the funds is not publicly known therefore it is not possible to analyze this issue any further. As per Ali and Malik (2006), a capital market plays a vital role in the economic development of a country. It is now widely accepted that there is a direct correlation between economic growth and the development of the financial sector. Mutual funds are considered to be an important source of injecting liquidity into the capital markets. A well established financial intermediation system facilitates the economic activity by mobilizing domestic as well as foreign savings.

Saeed (2004) reported that during the last two years, mutual fund sector has more than tripled in size to Rs. 112 billion (as of 31-Dec-04) in Pakistan. The industry players are predicting that the business is likely to grow by 200 percent over the next five years. The success of the industry will lie in several factors, one of which will be the role of regulators and their efforts to continuously evolve the code of corporate governance for the mutual fund industry. Cheema and Shah (2006) found that mutual funds are becoming vehicles of securities investments most favored by the general public worldwide. Whereas, this trend is more pronounced in the developed securities markets of the United States of America and Europe, mutual funds are increasingly gaining the public attention in the developing economies as well. Pakistan is not an exception to this global trend and even though mutual funds form a comparatively small segment of the securities markets, they have grown phenomenally over the last few years.

According to the Mutual Fund Association of Pakistan (MUFAP), mutual funds may not shield investors from the risks associated with overall market failure, the ability to diversify that they provide may reassure public investors as regards the failure of individual companies and hence make them less wary of insider opportunism in any given corporation. Keeping in view the importance of mutual funds industry in Pakistan, it develops a desperate need to investigate the fundamental factors of mutual funds growth in Pakistan.

3. Hypotheses and Methodology

3.1. Variables of the Study

This paper studies whether the shareholders income and their wealth increase from the growth of the mutual funds through the charging of management fees. Following Downen and Mann (2007), our main focus on the management fee but there are some other determinants like family proportion, expense ratio, risk adjusted returns as measured by sharpe ratio, and assets turnover in that specific duration

which we selected for the research purpose. There are a number of ways in which investors could enjoy by the growing of wealth from funds which charge this fee. Since the fee is used for administrative expenses. It could aid investors by making them aware of high quality managed funds that might otherwise be invisible to them. There are several possible examples of funds where this might apply.

Firstly, funds charging this management fee lead the higher total returns. Funds with greater total returns would benefit investors in that, if the superior performance was persistent, investors would have a higher terminal wealth from investing in these funds than they would have from investing in other funds. A fee showing the existence superior total returns would be of great of interest to investors. Secondly, the management fee might be a signal to investors of a greater risk adjusted rate of return. A greater risk adjusted return would imply that investors could earn superior returns with less chance of loss with respect to other portfolios offering the same level of return.

Thirdly, the funds charging the Management fee could be the funds that have lower expense ratios. The numerator of the expense ratio includes all of the operating costs of managing the fund; including the management fee and other administrative costs as well as all the expenses. It may be that after the management fee is removed from the expense ratio the fund has lower expenses than other funds. Such a result would support the idea that the fee itself is merely a substitute for other costs and that the investor in such a fund is no worse off, and could be better off than the investor in a fund that does not have the fee. Finally, managers might be using management fees to grow funds more rapidly than they would otherwise be growing.

The growth of the fund from time t to $t+1$ is defined as:

$$G_i = (\text{Assets}_t - \text{Assets}_{t-1}(1+R))/\text{Assets}_{t-1} \quad (1)$$

Where G_i is the growth rate in the assets under management by fund i from time $t-1$ to time t . Assets_t are the net assets under management at time t . Since the assets under management may grow either due to new sales or returns, equation 1 eliminates the growth that is due to returns. For all of the funds in the study, the management fee is based on the net assets under management which may provide a managerial incentive to grow the fund as rapidly as possible.

3.2. Model and Variables Measurement

We will test for whether management fee and other determinants affect the mutual fund growth using a regression model that controls for Risk-Adjusted Returns (RAR), Asset Turnover (AT), relative size (Assets) of the mutual fund within a family of funds (FP), Expense Ratio (ER) of the fund other than the management fee and the level of the management fee (FEE) using following regression model:

$$G_i = \beta_0 + \beta_1 \text{FEE}_i + \beta_2 \text{RAR}_i + \beta_3 \text{AT}_i + \beta_4 \text{ASSET}_i + \beta_5 \text{FAMPRO}_i + \beta_6 \text{ER}_i + \varepsilon_i \quad (2)$$

Where:

G_i = Growth of the mutual fund i during the study period of 2005-2009.

FEE_i = Management fee charged by fund manager excluding the expense ratio of mutual fund i

RAR_i = Risk-Adjusted Rate of Returns of mutual fund i

AT_i = Assets Turnover of the fund i

ASSET_i = The size of mutual fund i +

FAMPRO_i = Family proportion of mutual fund i relative to the family of that fund

ER_i = Expense ration of mutual fund i excluding the management fee charges

β_{1-6} = coefficients of the study variables

ε_i = error term

G_i is the growth due to new investment in funds i from previous year t to current year $t+1$. Growth is defined by equation 1. This sign \square measures the sensitivity of the growth rate of the mutual fund to the specified factor in each case. An expected positive sign means that the growth rate is expected to respond positively to increases in the variable. An expected negative sign means that the growth rate is expected to respond negatively to increases in the variable. RAR_i is the risk adjusted returns on fund i from year t to $t+1$, estimated by using the Sharpe Ratio introduced by Sharpe (1966). In accordance with earlier studies, this variable is hypothesized to have a positive sign.

AT_i is the asset turnover for fund i which is measured through the formula of Net Income divided by the Total Assets. Turnover is a measure of investing activity. The greater the turnover, the greater the cost of operating the fund. Holding all else equal, the greater the cost of operating the fund the lower the growth in the fund. This variable is hypothesized to have a negative sign in the model, $ASSETS_i$ is the natural log of total assets of the fund i at time t . The larger a fund, generally, the older the fund is so that assets serve as a proxy for the age of the fund. The older a fund, the more well known the fund is to the investing public and the easier it will be to sell the fund. $ASSETS_i$ is expected to have a positive relation with growth of the fund.

$FAMPRO_i$ is the proportion of the mutual fund family assets made up by fund i . The larger the proportion of the family assets in the fund, the greater the growth expected as fund i is supported by and from other members of mutual fund family. This variable is expected to have a positive sign. ER_i is the expense ratio of fund i , less the management fee from all the expenses. The expense ratio includes all of the costs that the management company charges to the fund including the management fee, trading costs, and any other expenses. Since the purpose of the test is to isolate the effect of the management fee, that fee is subtracted from the expense ratio. The greater the expense ratio, the lower the growth. Investors should prefer a lower cost fund as compared to a higher cost fund. The variable generally has the expected negative sign. FEE_i is the level of the Management fee. For the vast majority of the funds in the study, this variable will be charged by 1% to 3%. It is expected that the null hypothesis will be rejected and that this variable will have a positive sign, which is generally the case.

The regression model (Equation 2) is estimated on an annual basis for the years 2004 through 2009 for all funds that have all required data available using panels of data. A positive and significant sign on the FEE variable will lead to a rejection of the null hypothesis and will be consistent with the idea that the Management fee is used by management to increase growth in assets. There are two economic rationales that apply to the imposition of the Management fee on mutual fund investors. The first is that investors are the primary beneficiaries. The second is that fund management is the primary beneficiary of the fee. The major contribution of this paper is to determine whether the facts are more consistent with the investors or the managers being the beneficiaries for mutual funds.

3.3. Statistical Techniques Used

The results have been drawn with the help of fixed effect and random effect models. In econometrics and statistics, a fixed effects model is a statistical model that represents the observed quantities in terms of explanatory variables that are all treated as if those quantities were non-random. This is in contrast to random effects models and mixed models in which either all or some of the explanatory variables are treated as if they arise from the random causes. Often the same structure of model, which is usually a linear regression model, can be treated as any of the three types depending on the analyst's viewpoint, although there may be a natural choice in any given situation. In panel data analysis, the term fixed effects estimator (also known as the within estimator) is used to refer to an estimator for the coefficients in the regression model. If we assume fixed effects, we impose time independent effects for each entity that are possibly correlated with the regressors.

The major attraction of fixed effects methods in non-experimental research is the ability to control for all stable characteristics of the individuals in the study, thereby eliminating potentially large sources of bias. Within-subject comparisons have also been popular in certain kinds of designed experiments known as changeover or crossover designs (Senn 1993). In these designs, subjects receive different treatments at different times, and a response variable is measured for each treatment. Ideally, the order in which the treatments are received is randomized. The objective of the crossover design is not primarily to reduce bias, but to reduce sampling variability and hence produce more powerful tests of hypotheses. Fixed effects methods cannot estimate coefficients for variables that have no within-subject variation Time-series cross-section (TSCS) data harness both cross-temporal and cross spatial variation to maximize empirical leverage for theory evaluation. However, this powerful data structure also requires careful consideration of temporal and spatial (cross-unit) heterogeneity, temporal and spatial dynamic processes, and potentially complex stochastic error structures.

3.4. The Data

All of the data are taken for the years 2004 through 2009. Since 2004 is the first year and lagged data is needed, the results are presented for all funds for which all data was available for 2005 through 2009. The data is summarized in the table form and is regarding the equity funds. As far as the collection of the data is concerned, we consulted many sources for the collection of the data; mainly from Karachi Stock Exchange (KSE). The other sources of data are Business Recorder, Statistical Bulletin of Pakistan [Federal Bureau of Statistics (2005)] for 2005-2009 and State Bank of Pakistan for the collection of the financial reports and the KIBOR rates. The net asset values are collected from the KSE as well as from Business Recorder. Our focus was on most commonly known mutual funds of the Pakistan market. We selected almost 21 mutual funds from the KSE available sources but because of the running of Regression Model, for which we need only the family funds which are in the form of groups. We neglect the individual funds because of the family proportion concern. So now the data available is of 13 mutual funds which belong to a group or family of funds. Because the amount of the data was less for five years so we take the data in the panel form representing through panel EGLS and results are derived by using Eviews. Some descriptive statistics of the data collected are given in Table 1 which provides an insight into the various aspects of the data

Table 1: Descriptive Analysis

	GR	SR	AT	ASSET	FP	ER	FEE
MEAN	3.989	-1.096	-0.008	2633207	0.365	1.262	54455166
MEDIAN	0.005	-0.540	0.010	1435134	0.410	1.260	38342000
MAX.	63.590	2.290	0.450	14193216	1.000	10.900	2.49708
MIN.	-27.660	-5.010	-1.070	0.00000	0.000	0.000	0.00000
SD	12.763	1.470	0.272	3060791	0.255	1.644	53774795
SKEW.	2.134	-0.946	-1.834	1.951847	0.187	4.008	1.599424
PROB.	0.000	0.004	0.000	0.0000	0.729	0.000	0.0000
SUM	259.290	-71.278	-0.525	1.71608	23.400	82.060	3.54709
OBS.	65	65	65	65	65	65	65

4. Results

The results are reported in Table 2 which is Fixed Effect Model. In the table, RAR is resulting in a negative coefficient and shows that as the return on the mutual funds increases, the growth is effected negatively. After that, AT of it is in negative figure which shows a negative impact on the growth and the p-value is significant at 1% level. The coefficient of the family proportion is positive that's good for the growth of the mutual fund but it is not significance. The expense ratio is showing the negative result, which means that the increase of the expense ratio has a negative impact on the growth of the mutual funds. Its coefficient value is negative and the value is significant according to the fixed effect model. The results of variables AT, ASSETS, FP and ER are in accordance with the earlier work of Downen and Mann (2007) and are as expected in our model.

Table 2: Fixed Effect Model

DETERMINANTS	COEFFICIENT	S.E.	T-STATISTICS	PROB.
FEE	1.637	1.427	1.144	0.258
RAR	-3.772	1.532	-2.462	0.018
AT	-24.784	7.253	-3.417	0.001
ASSETS	0.447	0.155	2.878	0.006
FP	4.932	9.653	0.512	0.612
ER	-2.250	1.054	-2.135	0.038
CONSTANT	-1.456	4.251	-0.343	0.734
EFFECTS SPECIFICATIONS				
CROSS-SECTION FIXED (DUMMY VARIABLES)				

PERIOD FIXED (DUMMY VARIABLES)			
ADJUSTED R²	0.438	MEAN.DEP BAR	4.051
S.E	9.639	S.D. DEP BAR	12.859
SUM SQUARED RESID	3810.045	SCHWARZ CRITERION	8.418
LONG LIKELIHOOD	-221.580	F-STAT.	3.227
D-W STAT	1.896	PROB F-STAT	0.000

Dependent Variable: G Method: Panel Least Squares
Sample: 2005-2009 Total panel (unbalanced) observations: 64

Now comes the management fee which is resulting in the positive value for the fund, that means that the funds that using the management fee are contributing in the better growth of the fund because the coefficient value is positive. The funds charging the fee can make the funds growing as compare to the funds that are not charging the management fee. The factor we assume here that the management fee effect positively for the growth of the funds but because of the political instability and the country economic situation, it is not resulting good in the growth of the mutual funds in Pakistan. Lastly, according to this model, value of ASSETS is positive and significant indicating the increase in the growth of mutual funds with the increased level of assets of that fund.

In table 3 and 4, we use the cross section model (cross section random effects & cross section weights), and approximately similar results have been found. The assets turnover is showing the negative value which shows according to it that the more assets turnover can impact the growth of the mutual funds and the value is significant in both methods as well as in the fixed effect model. The value of the RAR means that return of the mutual fund is showing negative coefficient in the random effect method that means that the increase of the return value can effect the growth negatively and growth is less when this return value is high while the value is significant which means it is good for the growth of the mutual fund and same value is showing in the fixed effect method. However, in the cross section weights method the value of the return is positive and it is not significant there. So it shows that the higher return impact the mutual fund growth positively means higher the return higher the growth of the mutual fund.

Family proportion of the mutual funds according to the both methods reports that the results are showing positive relationship for the growth of the funds and the higher the family proportion. The values are significant according to the probability measures. According to both of these models, the results are reflecting that expense ratio is impacting the growth of the funds negatively as the ratio of the expense increase the growth is going to be less for the mutual funds. The coefficient value of the expense ratio is negative and significant in both of the models. As far as the Management fee is concerned, according to the both methods, the management fee is impacting on the growth inversely. The coefficient value in both the cases is negative means if the management fee is charged by the mutual fund management so the growth is less than if they don't charge the management fee. And the value is significant in both the methods. So it is clear from now that according to the Cross Section Model the impact of the management fee is negative on the growth of the mutual funds. The management who is charging the management fee their growth of the mutual funds is less and downward.

Table 3: Cross Section Weights

VARIABLE	COEFFICIENT	STD.ERROR	T-STAT	PROB
FEE	-5.297	1.997	-2.665	0.010
RAR	0.439	0.825	0.532	0.596
AT	-32.916	3.815	-8.628	0.000
ASSET	0.447	0.155	2.877	0.006
FP	4.404	3.353	2.506	0.016
ER	-2.032	0.719	-2.825	0.006
WEIGHTED STATISTICS				
R-SQUARED	0.788	MEAN DEPENDENT VAR		7.211
ADJ. R-SQRD	0.766	S.D. DEPENDENT VAR		20.513
S.E. OF REG	9.905	SUM SQUARED RESID		4709.255
DURBIN-WATSON STAT	1.785			
UN-WEIGHTED STATISTICS				
R-SQUARED	0.396	MEAN DEPENDENT VAR		4.801
SUM SQUARED RESID	6164.67	DURBIN-WATSON STAT		1.521

Dependent Variable: G Method: Panel EGLS (Cross Section Weights)

Sample: 2005-2009 Total panel (unbalanced) observations: 54

So these are the results from the use of the two different models for the testing of the variables and the impact of the determinants on the growth of the mutual funds. As far as the results are concern so it is clear that in most of the factors like the assets turn over, expense ratio, family proportion and assets the results are same in both the methods. But the concern is with the RAR which has a little bit difference. According to both the methods the results are same for the return but in the cross section model in which two methods were drawn and only the sharp ratio returns are varying there. In management fee the results are totally different for both of the cases. For the confirmation of the results, all the outcomes and the results are in accordance with the study of Downen and Mann (2007).

Table 4: Cross Section Random Effect Model

VARIABLE	COEFFICIENT	STD.ERROR	T-STAT	PROB
FEE	-3.497	2.877	-1.217	0.228
RAR	-1.435	0.972	-1.876	0.952
AT	-29.005	5.104	-5.682	0.000
ASSETS	0.668	0.212	3.14	0.001
FP	13.775	6.468	2.129	0.037
ER	-2.021	0.866	-2.134	0.023
EFFECTS SPECIFICATIONS		S.D	RHO	
CROSS SECTION RANDON		3.045	0.096	
IDIOSYNCRATIC		9.345	0.904	
WEIGHTED STATISTICS				
R-SQUARED	0.432	MEAN DEPENDENT VAR		3.287
ADJ. R-SQRD	0.384	S.D. DEPENDENT VAR		12.429
S.E. OF REG	9.758	SUM SQUARED RESID		5522.350
F-STATISTICS	8.844	DURBIN-WATSON STAT		1.533
PROB (F-STAT)	0.000			
UN-WEIGHTED STATISTICS				
R-SQUARED	0.416	MEAN DEPENDENT VAR		4.051
SUM SQUARED RESID	6076.710	DURBIN-WATSON STAT		1.432

Dependent Variable: G Method: Panel EGLS (Cross-Section random Weights)

Sample: 2005-2009 Total panel (unbalanced) observations: 64

The summary results of all models are given in Table 5 which indicates that cross section weights and random effect model provided more relevant and significant results as compared to fixed effect model. These results are also in accordance with earlier findings as well as our hypothesized propositions. AT, ASSETS, FP and ER have been reported similar in fixed effect model and random

effect; however, variations are there for RAR and FEE variables of our study. Contrary to fixed effect model, random effect model has reported management fee as negatively and significantly associated with the growth of the mutual funds under consideration. Whereas, only fixed effect model provided significant and negative effect of RAR on the mutual funds growth.

Table 5: Summary Results

Variables	F.E. Model	Cross Section Weights	R.E. Model
FEE	Positive	negative *	negative
RAR	negative *	positive	negative
AT	negative *	negative *	negative *
ASSETS	positive *	positive *	positive *
FP	positive *	positive *	positive *
ER	negative *	negative *	negative *

* indicates that variable is significant at either level of significance

5. Conclusion

The basic duty of the management of any firm and the company is to maximize the business and the wealth of the share holders as well as the sustainability of the owners of the company. The management of the mutual funds is charging the management fee for this purpose. The management fee according to them is for the efficient control of the management for the growth of the mutual fund. The present study reveals the various determinants of mutual funds including management fee. The growth of the mutual funds which we examined here is based on the determinants which are affecting the growth of the mutual funds and is dependant on the negative and the positive impacts of these determinants. We worked through two models for investigation of this relationship of growth which are fixed effect model and the cross section model. Most of the results drawn by these models provided same results except of some factors.

The impact of the asset turnover, expense ratio and the risk-adjusted returns which is calculated through the sharp ratio has a negative impact on the growth of the mutual funds. It is clear that the increases in the value of these factors cause lowering growth of the funds, whereas, the factor of the family proportion and size of mutual fund is impacting positively on the growth of the mutual funds. As the value or the ratio of the family proportion and mutual fund size increases, it signals the higher growth of the mutual funds. Finally, as far as the impact of the fund management fee towards the growth of the mutual fund is concerned, the evidence supported the notion that it effects the growth negatively.

According to the both models, the management fee is resulting differently. In the cross section model the management fee is impacting negatively which is the constraint of this study and very much similar to Pakistani economic environment. Management fee is charging by the funds management is contributing less in the growth. So the cross section model shows that higher the fee is charged by the management, the lesser will be the growth of the mutual funds. Alternatively, the fixed effect model reflects the result that the management fee is contributing to the much growth of the mutual funds as promised by their management advisors. It reflects that the management who is charging the management fee, those are keeping the fund firm towards the higher growth.

Although, much of the results obtained from the models are in the favor of our expectations and confirming the earlier findings of Downen and Mann (2007), however; impact of management fee and RAR is still inconclusive. There is a need to apply more scientific research and data analysis techniques and in-depth analysis in order to find a clear and distinctive role the management fee and RAR are playing in the growth of mutual funds in Pakistan The current study also provide some practical implications for the fund managers as well as the prospective investor in the equity markets. They people need to understand the positive role of AT, FAMPRO, ER and size of the fund on its growth they are considering for managing the fund of investing in. Although, management fee and

RAR produced mixed results, however; their negative signs are giving a clear direction for decision making of fund managers and prospective investors.

References

- [1] Afza, T. Rauf, A. (2009). Performance Evaluation of Pakistani Mutual Funds. *Pakistan Economic and Social Review*, 47(2): 199-214.
- [2] Ali, S. M. and Malik, A. S. (2006). A Note on the Mutual Fund in Pakistan. *Centre for Management and Economic Research (CMER) Working Paper No. 02-580-98-2*: Lahore University of Management Sciences, Lahore Pakistan.
- [3] Ang, J., Chen, C. R. and Lin, J. W. (1998). Mutual Fund Managers' Efforts and Performance. *Journal of Investing*, 7: 68-75.
- [4] Bogle, J. C. (2004). Re-Mutualizing the Mutual Fund Industry - the Alpha and the Omega". *Boston College Law Review*, 45: 391-399.
- [5] Bogle, J. C. (2005). The Mutual Fund Industry 60 Years Later: For Better or Worse? *Financial Analysts Journal*, 61 (1): 15-24.
- [6] Cheema, M. and Shah, S. A. (2006). The Role of Mutual Funds and Non-Banking Financial Companies in Corporate Governance. *Centre for Management and Economic Research (CMER) Working Paper No. 06-46*: Lahore University of Management Sciences, Lahore Pakistan.
- [7] Collins, S. (2004). The Effect of 12b-1 Plans on Mutual Fund Investors: Revisited. Working paper, Investment Company Institute, Washington, DC.
- [8] Freeman, J. P. and Brown, S. L. (2001). Mutual Fund Advisory Fees: The Costs of Conflicts of Interest. *Journal of Corporation Law*, 26 (3): 609- 73.
- [9] Golec, J. (2003). Regulation and the Rise in Asset-based Mutual Fund Management Fees. *Journal of Financial Research*, 26:19-30.
- [10] Huhmann, B. A. (2005). Does Mutual Fund Advertising Provide Necessary Investment Information? *International Journal of Bank Marketing*, 23 (4): 296-316.
- [11] Khorana, A. Servaes, H. and Tufano, P. (2005). Explaining the Size of Mutual Fund Industry Around the World. *Journal of Financial Economics*, 75 (1): 145-185.
- [12] Livingston, M. and O'Neal, E. S. (1998). The Cost of Mutual Fund Distribution Fees. *Journal of Financial Research*, 21 (2): 205-218.
- [13] O'Neal, E. S. (1999). Mutual Fund Share Cass and Broker Incentives. *Financial Analysts Journal*, Sept/Oct:76-89.
- [14] Richard J. D., Mann, T. (2007). Do Investors Benefit from 12b-1 Fees? *Mid American Journal of Business*, 22 (1): 21-29.
- [15] Sharpe, W.F. (1966). Mutual Fund Performance. *Journal of Business*, 39 (1): 119-138.
- [16] Sipra. N. (2008). Mutual funds: Mutual Fund Performance in Pakistan. *CMER working paper no. 06-45*, Lahore University of Management Sciences (LUMS), Pakistan.
- [17] Senn, S. J. (1993). Baseline Distribution and Conditional Size. *Journal of Biopharmaceutical Statistics*, 3: 265-270 (Correction: (1994) *Journal of Biopharmaceutical Statistics*, 4: 449).