The Determinants of Mutual Funds Success in Pakistan

Imran Umer Chhapra\textsuperscript{1}, Raja Rehan\textsuperscript{2}, Abdul Rafay\textsuperscript{3}
\textsuperscript{1,3}Shaheed Zulfiqar Ali Bhutto Institute of Science & Technology, Pakistan.
\textsuperscript{2}University Kuala Lumpur, Malaysia
\textsuperscript{1}imran\_js@yahoo.com, \textsuperscript{2}rajarehan3@hotmail.com, \textsuperscript{3}abdulrafaymaymon@gmail.com
*Corresponding author

Abstract
The prime goal of this research is to find out the determinants of mutual fund’s success in Pakistan. This study exploits the convenient sampling techniques and the data gathered from fund manager reports, annual reports, and from CDCPL. The sample size of this study relaxed to six Assets Management Companies (AMC)’s from of 2013 to 2017. We applied a unit root test for finding the nature of data and check the variation of variable’s mutual performance by Hausman Technique. Moreover, we depicted the association between dependent and independent variables with the help of Constant Coefficient Model. It was concluded that risk adjusted return, management structure, and expense ratio have a significant impact on size of fund of selected AMC’S of Pakistan. However, the net asset value found to be negatively related with the size of fund. This research will help investors, AMC’s and regulatory bodies to understand the dynamics of mutual funds in Pakistan.

Keywords: mutual funds, equity funds, net asset value, risk-adjusted return

Abstrak

Kata kunci: reksadana, dana ekuitas, nilai aset bersih, risk-adjusted return

Cara Mengutip:
INTRODUCTION

Mutual fund is defined as the collective investment scheme in which many investors put their money in one basket that is managed by fund managers of Asset management companies. The investors are called unit holders who gets unit of the fund at the Net Asset Value (NAV) according to their investment & potential of a mutual fund. Mutual funds in general can be categorized into two segments “open-end funds” and “close-end funds”. In open-end funds redemption and subscription of units are continuous. Where as in close-end funds redemption and subscription can only be utilized at the time of commencement. Asset management companies develop a mutual fund with the approval of regulation authority. Companies launch funds of different nature after a lot of research and critical analysis. The result of the research is available in the market; it helps for the people to invest. Currently mutual fund can be categorized into 11 different types, which are approved by SECP. A mutual fund can only invest in specific things as prescribed in the classification of a respective category.

There are different schemes of mutual fund available in the Pakistan market that keeps increasing with the approval of SECP. Currently there are three main schemes that further comprises into different according to their nature. Open-end scheme, Voluntary pension funds & close end schemes. Fund managers are responsible to invest on behalf of the unit holders in a well-diversified portfolio of securities and other instruments. The fund managers take the major decisions and necessary actions to make sure that the fund provides best possible return to unit holders’ investment. Fund managers are responsible to make investment decisions on behalf of the pooled fund generated from the investor’s money. They are highly qualified and experienced persons who are hired by the top management of the company.

In developing countries like Pakistan, people are not used to of taking risks and invest in capital market at individual level. They also lack knowledge and information due to the limited facilities available to them. They are keen to secure their investment by not taking risk and getting more returns. Pakistan mutual fund industry has grown dramatically in last five years. Mutual funds are incorporated to benefit the individual investors and small clients who do not carry such big capital that can let them invest in capital market and money market. This industry has played a pivotal role in the economy of Pakistan. It has contributed tremendously in Pakistan’s economy in past five years. This industry comes under Non-banking financial institution (NBFI). Currently CDC is acting as a trustee of most of the mutual funds. There is a significant and efficient role was essential to keep the investor protect and to grow this industry to its potential. The growth credit in mutual fund industry in last five years also goes to SECP according to some research analyst. In Pakistan Security Exchange Commission of Pakistan (SECP) is the only regulatory body of this industry. They are very stringent in providing license to companies when it comes to collective investment scheme. Mutual funds cover almost 60% of total assets of NBFI & its keep increasing.

This industry has grown significantly by 73% in last five years. There are total of 177 mutual funds in Pakistan as of 30th June 2017. Pakistan’s mutual fund industry is almost 55 years old, started in 1962 when National Investment Trust’s units first went public (NITL).
There are 20 entitled (AMCs) lead by National Investment Trust limited with 120bn single handedly. In the last decade we have seen flourishing increase in Islamic Banking and Islamic way of investment, which is based on Shariah compliance. This growing concept also had its influence on mutual funds industry, which diversifies mutual funds further into two categories i.e. conventional Mutual funds and Shariah compliant Mutual funds. People of the Islamic republic of Pakistan are much more concern about interest rate factor that made the AMCs to think differently and invest in such Assets which are backed by Shariah compliant. The conventional mutual fund grabs a major holding of total assets of mutual funds with Rs. 401.38bn; whereas, the shariah compliant mutual funds worth with Rs. 308.65bn.

Ideally, mutual fund industry of Pakistan (Equity fund) has experienced success over the years. There were numerous studies conducted to find out the reason behind the success. Almost every study concluded with the same determinants such as: size, management fees, financial stability etc. but with almost the same software such as: Sharpe, Jenson ratio, etc. However, in reality there can be many other ways of analyzing data from other resources. Therefore, the inspiration behind this study is to examine the determinants with updated data and different model, which can be incorporated in deciding about the success of mutual fund industry. As in developing countries like Pakistan, people lack financial knowledge and avoid taking risk. So, they prefer investment in mutual funds to minimize their risk and maximize returns. Therefore, it is very important to understand the key determinants that play a vital role in success of mutual funds in Pakistan.

The main objective of this study is to determine numerous factors for behind the success of mutual funds. Besides that, this research want to examine what impact the management structure, expense ratio, net asset value, and risk adjusted returns creates on the success of mutual funds in Pakistan.

Ferreira et al (2013) explaining the key thing that are involve in success of mutual fund. This article is all about success of mutual fund. This study is conducted in United States, as this is open-end equity. Some of these previous study on this topic is Khorana et al (2005) told that from 1997 mutual fund have 37% but in 2006 it is 54% it is approximately increase by 27% as in this period investor interest in the mutual fund is all increase they take all the information about each mutual fund which is size, family size, past return of this fund, management structure and how old this fund is so, this is determinant of the success of the mutual fund. Ferreira, et al (2013) takes the data of 27 countries from the period of 1997 to 2007. As in this article U.S.A fund is include All U.S.A as non U.S.A fund include rest of the world. Mannar and Reddy (2013) explaining the point of view of investor toward mutual fund. Every investor think different to other investor as every investor range is different as well as every investor target is different. They also provide information from fund manager, broker and investor. This article is all about mindset of the investor toward mutual fund as every investor mindset is different.

Anwar and Arif (2016) explaining the evolution of mutual fund performance in Bangladesh. Mutual fund is all about to gain monthly income like dividend and capital gain. In the mutual fund loss probability are very low because risks are spread to many investor and stock. This paper is studied in Bangladesh. 559 listed companies in Bangladesh at the end of 2016 and it is growing in every year. Mutual fund scheme in Bangladesh has been
used in two perspectives. In maturity fund there are three-fund: open-end fund, close end fund and interval fund. Conclusion of this paper is that in 2014-2016 there are downward trend in return of Bangladesh stock market that’s why we get all our research in negative.

Nazir and Nawaz (2010) explain the determinant of mutual fund growth in Pakistan. In Pakistani mutual fund market 11 asset classes has been used. The main purpose of the mutual fund is to give benefit to the small investor. As they do not have more money to invest in securities like bond, stock and money market but through mutual fund they get the share of all of this. This study is conducted in Pakistan. Time frame for the data is 2005 to 2009 data is taking from 13 mutual funds. Khorana and Servaes (1999) make 13 objectives. Within 13 objectives we take 66700 observations with a time period of 14 years. We analyze a data through regression, robustness test and Poisson regression. Conclusion of this paper is all hypothesis are rejected which means fund is increase so the fees is less 2nd result is fund is increase so the asset inflow and fund size is also decrease, 3rd result is fund returns is increase so the fund is also increase, 4th result is capital gain is increase so, the fund is also increase and the last result is when the fund is increase so, the fee structure is decrease because fees are spread to all of the funds.

This research is going to examine the factors that determine the mutual funds success in Pakistan. This research will give a contribution for the fund manager when they allocated the mutual funds for their investors.

**METHOD**

The nature of research is descriptive as this investigation aims to answer of how, when and where the impact of independent variable (risk adjusted Return, management structure, expense ratio and net asset value) laying on the success of mutual funds, which is illustrated by size of Fund. The selected companies are listed on MUFAP & it comprises of National Investment Trust Limited, NAFA, MCB – Arif Habib, Lackson Investment Management UBL funds & Primus investment management limited. This study has been organized in Pakistan by gathering & examining the related data of mutual fund industry for last five years.

This study aims to find out the effect of 4 independent variables on dependent variable. The population of this study comprises of all the listed AMCs on MUFAP. It includes 20 AMCs. The sample size for this research is 6 well Known AMC’s out of the 20 listed AMCs. The panel data has been collected from annual reports and fund manager reports from of 2013 to 2017, which means our core of investigation purely secondary in nature.

The random effect model will be applied for the estimation of results. This study aims to find out the effect of four independent variables on dependent variable, which would be estimated thorough panel correlation & regression analysis. The model has been demonstrated as follow.

\[
SOF_t = \beta_0 + \beta_1 RAR_t + \beta_2 MS_t + \beta_3 NAV_t + \beta_4 EXP_t
\]

Where: SOF= size of fund; RAR= Risk Adjusted Return; MS= Management Structure; NAV= Net Asset Value; EXP = Expense Ratio.
RESULTS AND DISCUSSION

The unit root test has been applied on all variables & the probability values are below the 5% significant level which means that the alternate hypotheses are not rejected. In Table 1 The probability of Hausman test is less than the significant level of 5% that means that alternate hypothesis is not rejected and null hypothesis is rejected. Furthermore the probability is less than 5% which also shows that for this study fixed regression effect is appropriate.

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>FIXED</th>
<th>RANDOM</th>
<th>VAR (DIFF)</th>
<th>PROB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return</td>
<td>1.136644</td>
<td>1.203487</td>
<td>0.003364</td>
<td>0.0291</td>
</tr>
<tr>
<td>nav</td>
<td>0.159923</td>
<td>-0.124854</td>
<td>0.000156</td>
<td>0.0050</td>
</tr>
<tr>
<td>ms</td>
<td>0.163489</td>
<td>0.106729</td>
<td>0.003412</td>
<td>0.0312</td>
</tr>
<tr>
<td>expense</td>
<td>0.322957</td>
<td>0.214718</td>
<td>0.002330</td>
<td>0.0249</td>
</tr>
</tbody>
</table>

The outcome of multiple regressions is relying on R-square and adjusted R-square. R-square is basically predicting the joint significance level of independent variables. Adjusted R-square, indicates that 70.07% variation in mutual performance is described by the variables selected for this study i.e. risk adjusted return, net asset value, expense ratio, and management structure. These independent variables can influence mutual fund performance that is measured by asset under management. It declares the model is fit to study. Our results are consistent with the results of Madhusudhan (1996), Nazir and Nawaz (2010), Elton et al (2013) and Anwar and Arif (2016).

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>PROB</th>
<th>EFFECT SPECIFICATION</th>
<th>VALUES</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.0000</td>
<td>R SQUARED</td>
<td>0.724700</td>
</tr>
<tr>
<td>RETURN</td>
<td>0.0010</td>
<td>Adj R Squared</td>
<td>0.707159</td>
</tr>
<tr>
<td>NAV</td>
<td>0.0001</td>
<td>F Statistics</td>
<td>11.36142</td>
</tr>
<tr>
<td>MS</td>
<td>0.6506</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXPENSE</td>
<td>0.0300</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

By using the Regression analysis, we found the relationship between the dependent and independent variable. The equation of size of fund is depicting about 0.1177, this result means for every one unit increase in net asset value the size of fund will decrease by 0.1177, it is negatively associated with the dependent variable. So, H₃ is accepted. The coefficients of risk adjusted return, management structure and expense ratio are 1.10, 0.1538 and 0.2561, these values are positively associated with the size of fund which asserted that the alternate hypotheses cannot be accepted.

Tang and Xu (2012) determining the size and performance of mutual fund through open-end equity. China mutual market has been increase after 2001. It has been increase
more than 80% from 2001 to 2007. China mutual fund is consisting of 28% of equity market. Asset management companies are also increase up to 62 to 576 that show that china mutual market is also popular throughout the world. Tang and Xu (2012) take the range of data from 2004 to two quarter of 2010. We take data from Tianchiang investment analysis system. We analyze data through CAPM; the conclusion of this article is that of first research which success of Chinese mutual fund industry is as we read the article so there is a two reason. First one is institutional investor has a professional analysis as well as they are well trained to judge the market. 2nd one is institutional investor has a very huge part to the Chinese stock market because small investor does not have a trading issue. They sell their stock within a day.

Yadav (2015) is telling about small investor that how to select the mutual fund as small investor does not have enough money to invest in stock market. They does not have enough time to decide which share to invest in stock market like doctor, engineer does not have time to read financial statement. Another thing is they do not have enough skill to analyze financial information. Some of the previous article of this topic is Madhusudhan (1996) explained that why investor go toward mutual fund due to fear of loss of money. He moves toward mutual fund that in mutual fund his principal amount is safe and he get profit in every month. The objective of this case study is to determine why mutual fund is important for today's market. Second objective is what are factor that affect the selection of mutual fund. This research is conducted in India sample is taken from Jaipur and Moradabad. Research has been used in this article is qualitative. The conclusion of this article is that of first objective is to lack of ability skill of the small investor but in mutual fund AMC'S hire the CFA, CA and MBA qualified people as they have strong skill to analyze the financial statement. Finding of the 2nd research is lack of money but in mutual fund this is not a problem b/c every investor has a share of investment so risk is also reduced.

Nathaphan and Chunhachinda (2012) conclude that three determinant of success of Thailand mutual fund industry. First one is administrative expense that is less. 2nd determinant of success is distribution channel as give good service to its client. Provide necessary information when possible. 3rd determinant of success is reputation of parent company as a good network and parent company is also provide good services so, he get success. A/C to this article those AMC has good success in this three determinant has get good fixed income fund and equity fund.

Berg and Van Binsbergen (2015) is explaining about measuring skill of the manager in the mutual fund industry. The objective of this paper is to manager skill and talent increase mutual fund performance or skill has no effect in the mutual fund performance. There are various researches in this topic. Grinblatt and Titman (1993) said that skill is necessary for the manager to increase mutual fund because now a day's competition is more. Information is increasing at a faster pace that manager who picks right information in the right time who get succeed. At the end skill is necessary to increase the inflows of the mutual fund as well as it decrease the expense of the stocks at the end it increase the performance of the mutual fund. Cremers and Petajisto (2009) found that managerial skill does not have impact on mutual fund performance and mutual fund performance is unpredictable Berg and Van Binsberge (2015) take a data from the start of 1962 to march 2011. They take
a data from CRSP. Our study is quantitative. We take a sample of all active mutual funds, which is still use for an investor to buy and sell. Our analysis is use in this article in three ways. First one is vanguard benchmark use to analyze the alpha. 2\textsuperscript{nd} is cross-sectional study of mutual fund which is use for investor. 3\textsuperscript{rd} one is bias free estimate of mutual fund. The conclusion of this article is to skill is necessary to increase the mutual fund because now a day's choice is increase for the individual to pick the stock. So manager ability, skill and talent is countable to increase mutual fund without skill you don't increase the mutual fund as a result expense is increase so you don't get your desired profit at the end.

Elton et al (2013) explained about size and performance. It is dependent to each other. The mutual fund future predictability is a key factor in this article as 1 to 3 year. There are many formulas, solution to measuring mutual fund future performance in finance. Some people analyze future performance through past data, future cash flow, NPV and IRR. The objective of this paper is to analyze the relation between size and performance. Elton et al (2013) take a sample from 1999 to 2009; they take a data of all mutual funds that are CRSP the sample has a data of all common stock. Exclude index fund, sector fund and lifecycle fund. We analyze the data through Ranking alpha, Fama French and four factor models. The conclusion of this article is fund size and performance has a negative relation which means fund size increases so performance decreases. According to this research management does not have more skills to manage the fund and 2\textsuperscript{nd} is when you sell the large fund due to recession or any other thing so, it does not sell within a day. As compare to small fund which sell within a day.

Cao, et al (2013) explained about liquidity of the stock. In this article we focus on liquidity of the stock. There are many reasons for the liquidity of the stock. Firstly, there is a clear relationship between mutual fund performance and liquidity. If a market is declining liquidity tends to be very low. In this article there is an example of 2008 crisis in this liquidity is very high because stock are not transfer in to cash due to high liquidity. 2\textsuperscript{nd} thing is that if market volatility is high. So, it is difficult for manager to maintain time market liquidity. Busse (1999) said that when market is less volatile so it is easy to fund manager to maintain time market liquidity but on the other hand when the market is highly volatile so, it is difficult to maintain time market liquidity. Chen, et al (2004) concludes that liquidity is also depending on the firm to maintain the each stock. If the firm maintain single stock with have high share so it's difficult to firm to maintain liquidity. When the stock is in crisis so it is difficult for a manager to maintain time market liquidity and improve performance. Another past studies is that Bernstein and Jhon (1998) stated that when the market is more efficient so it is difficult for the manager to beat the market because information is come at a very faster pace and market are responding very fast. So, it is difficult for the manager to respond and react all of the information. Huij and Lansdorp (2013) conclude that there is no relation between market efficiency and performance of the fund. As market efficiency is increase so it does not mean performance of the fund is increase directly.

Fang and Joel (2009) explain the relationship between the media coverage of stocks and mutual funds trading and performances. The investigation was the extension of previous study of Barber and Odean (2008), and Engelberg and Parsons (2011) exhibiting the evidence that the stocks backed by heavy media coverage are likely to be highlight for the individual
investors. The investigation was carried out for the funds and its trading performances. Stocks covered by media are likely to reduce the searching cost for stocks and managers may not need to look and research for thousands of listed stocks. The investigation was also carried on stocks that grabbed the highest media coverage excluding the news content of respective articles. The study finds that in aggregate the stocks highlighted by media coverage grabbed more buyers and fund. But there is a continuous difference in mutual funds to buy stocks with mass media coverage. Secondly there was a negative relation between funds propensity to buy stock with mass media coverage and the performance it carries. Sialm and Tham (2015) examine the impact of spillover in mutual funds companies. The data comprises of different and 109 publicly listed companies that lies on some characteristics set by the author to investigate the relation. The findings demonstrated that potential investors do not just rely on prior performance of mutual fund held by respective company but the brand of the company as a whole has a severe impact on decision to invest. Huang (2014) investigate the liquidity preferences of mutual funds in particular equity funds and how does it impacts the performance of a fund. This study is the exploration of the fact that the stock market is completely volatile and instability of financial market drives the need of liquidation.

Dey and Chakraborti (2015) investigates the relationship between advertising strategy and mutual fund purchase. The advertising strategy consists of two types such as transformational and informational. The findings drive that the advertising strategy matters a lot to purchase mutual funds. Male investors are likely to invest in the funds that are informatively advertised rather than transformational. The investors are keen to get stay aware about the funds dynamics and what it comprises of rather than just linking it with their post retirement spending.

CONCLUSION

In this investigation, the core purpose is to find out the determinants that proven to be mutual funds success (equity funds) in last five years. The investigation incorporated with the selection of 6 well known AMC’s of Pakistan i.e. National investment trust limited, NAFA, UBL funds, MCB- Arif Habib, Lackson investment management and Al-Meezan investment management limited. We selected the six equity funds each from the selected company and in order to extract out the data of the five variables such as: size of fund (dependent variable), risk adjusted return, net asset value, expense ratio, and management structure. The result obtained shows that out of four hypotheses, three hypotheses found to be not accepted and one hypothesis was accepted. The rejected hypotheses are risk adjusted return, management structure, and expense ratio whereas the net asset value was accepted. The findings of this study are similar from some researches Madhusudhan (1996), Nazir and Nawaz (2010), Elton, et al (2013) and Anwar and Arif (2016). At the same time the results are varying, there may be reasons that it is occupied on updated data which is till September 30, 2017, the six equity funds that are selected in order to carry out this research and may be it is incorporated in different region. Furthermore, the three variables are found to be significant and only the management structure is insignificant which ultimately depicts that this variable plays a pivotal role in the determination of mutual fund success that is further elaborated by size of fund in last five years.
The investigation is limited to just these four variables whereas in reality there might be many other determinants which can be incorporated to find out the success of mutual (equity) funds. Therefore the investigation can only be generalized to this country only. This investigation is limited to just equity funds and the generalization on the entire mutual fund industry might not be sufficient enough. Furthermore, this research will help investors, AMC's and regulatory bodies to understand the dynamics of mutual funds in Pakistan.

REFERENCES


