Research Paper Management

A Study on Relationship between Investment Pattern and Performance of Selected Equity Mutual Funds in India

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ABSTRACT

Mutual funds as an investment medium which have been operating in India for many years. It is very popular medium for retail as well as institutional investor. This research paper studies relationship between Investment Pattern and selected mutual funds in India. The sample for the study consists of four mutual funds belonging to Equity category funds. The performance of selected funds is evaluated using average rate of return of fund, standard deviation, Risk/Return, Sharpe Ratio, Treynor ratio and Jensen ratio. Benchmark comparison is also made as it indicates to what extent the fund managers were able to produce better performance of managed portfolio compared to the market or index portfolios.

KEYWORDS

Introduction:

A simple meaning of investment pattern is "act of investment (fund) manager to achieve desired objective of fund/schemes with the regulatory restriction by SEBI as well as companies internal guidelines". There are other attributes which directly affect to the investment patterns of the schemes and their return are as follow.

Investment objective2.Asset allocation3. Benchmark Index4. Fund size 5. Inception date. The study put emphasis on empirically research of the investment patterns of the four equity mutual funds categories; examines and to classify their tendency for specific investment pattern, fund categories and identifies the foremost investor groups in terms of investment in a particular equity mutual fund. This study gives framework with respect to competitive mutual fund schemes of different asset management companies with the aim to provide comparative information of various mutual fund schemes in favor of potential investor's interest.

Objective of the Study:

1.To study the selected mutual funds for their Investment Pattern.
2.To evaluate performance of different mutual funds on the basis of Risk-Return parameters and average monthly returns.
3.To find out if there is any significance difference in the average monthly return of selected four equity mutual fund schemes.

Literature Review:

Sharpe (1988, 1992) He classified mutual fund investment Patterns into two main categories: Characteristics-based style analysis and Returns-based style analysis, which is based on portfolio's historical holdings and it is security weights and it is considered to be the most powerful and comprehensive approach for measuring performance of funds. Treynor (1965) and Sharpe (1966) have provided the abstract outline of relative measure of performance of equity mutual funds. While Treynor used systematic risk, Sharpe used total risk to estimate the mutual fund portfolio**Grinbalt and Titman (1989) and Daniel et al. (1997),** they used an alternative approach based on fund's holdings to evaluate fund performance i.e. holding based style, the traditional approach of Investment style. **Chan et al (2002)**, in his article analyzed on whether differences in style are associated with performance or not? He adopted a style classification based on two dimensions: 1. Market capitalization, and 2. Value-growth orientation. The style adopted by him through light upon the study on behaviour of stock returns and its investment style. **Brown (2009) and Goetzmann (1997), Carhart (1997),** they found in their article that fund size and fund value help in account for differences in fund performance because of various investment styles. And it shows that generally small cap funds are outperformer as compare to large cap funds because large cap funds have lesser expense ratio and turnover ratio.**Comer, Larrymore and Rodriguez (2009)** find that hybrid funds perform significantly better than the style benchmarks under weak stock market conditions. They define hybrid as both asset allocation and balanced mutual funds that hold a combination of equities, fixed income securities and cash in their portfolios. These funds engage in both security selection and market timing techniques.

Research Methodology:

Population: 380 open-end equity funds

Sample Size: 4 open-ended equity funds;

- SBI Mutual Fund,
- TATA Equity management fund,
- Sundram Mutual Fund,
- HDFC Mutual fund

Sampling Procedure: Simple Random Sampling

Data Collection: secondary source

Performance Measures: The performance of selected funds is evaluated using ARR, standard deviation, Risk/Return, Sharpe, Treynor, Fama ratios and Return alone should not be considered as the basis of measurement of the performance.

Scope of the Study: The study is limited to open ended equity mutual funds in India

Performance Analysis: Data collected for selected equity mutual funds was analyzed & presented below:

The below Table showing Investment Pattern analysis of all sources/schemes:

	SBI Magnum Blue-chip Fund- (Dividend)	TATA Equity Management Fund-(Dividend)	Sundaram Mutual Fund -growth	HDFC Mutual Fund -(Growth)
Type of FUND	Open Ended	Open Ended	Open Ended	Open Ended
Nature	Equity	Equity	Equity	Equity &Debt
Option	Income/Dividend	Dividend/Income	Growth	Growth
Inception Date	Feb 14,2006	July7,2006	April14,1997	Sep11,200
Face Value	10rs	10rs	10rs	10rs
Fund Size	755.55	139.57	231.07	1284.58
Expense Ratio	2.35%	2.44%	2.39%	1.99%
Portfolio Turnover Ratio	127%	157%	138%	25.33%
AUM as on 31st mar, 2012 (Rs in lakh)	30045.99	5372.44	5467.43	650062.79
Asset Allocation(%)				
Equity	94.03	99.76	97.17	98.94
Debt	0.79	0	0.07	0
Cash & Equivalent	5.18	0.24	2.75	1.06

Above table showing type of fund, nature, option, Inception date, Fund size, ratios, and asset allocation. In this study we have taken two dominant investment patterns of investment, and their different attribute's which affects to the returns of the schemes.

Table -1 Market Return for the year 2011-2012

Month	Open	Close	Return r	1+r
Apr-11	19,463.11	19,135.96	0.0168	1.0168
May-11	19,224.05	18,503.28	-0.0375	0.9625
Jun-11	18,527.12	18,845.87	0.0172	1.0172
Jul-11	18,974.96	18,197.20	-0.0410	0.9590
Aug-11	18,352.23	16,676.75	-0.0913	0.9087
Sep-11	16,963.67	16,453.76	-0.0301	0.9699
Oct-11	16,255.97	17,705.01	0.0891	1.0891
Nov-11	17,540.55	16,123.46	-0.0808	0.9192
Dec-11	16,555.93	15,454.92	-0.0665	0.9335
Jan-12	15,534.67	17,193.55	0.1068	1.1068
Feb-12	17,179.64	17,752.68	0.0334	1.0334
Mar-12	17,714.62	17,404.20	-0.0175	0.9825

Annualized market returns 10.58%

Table 1 indicates the monthly return of sensex, which clearly indicates that as compare to other month Jan12 has indicated good return in terms of market return**.** Average annualized monthly return of market is 10.58%.

Table -2 Monthly return and market return for the year 2011-2012

Month	SBI Mutual Fund (sbi blue chip fund)	Tata equity management Mutual Fund	Sundaram Mutual Fund growth	HDFC Mutual und(growth)	SENSEX	
	r	r	r	r	r	1+r
Apr-11	-2.16	0.65	0.22	-0.17	0.0168	1.0168
May	-1.24	-0.61	-1.65	-0.84	-0.0566	0.9434
June	0.56	0.99	0.01	0.73	-0.0488	0.9512
July	-1.53	0.53	-0.04	-1.63	-0.0419	0.9581
Aug	-7.46	-6.13	-9.41	-7.75	-0.0571	0.9429

Sep	-4.11	-2.09	-3.62	-1.64	-0.0399	0.9601
Oct	5.56	5.54	6.16	5.73	-0.0202	0.9798
Nov	-4.59	-5.79	-5.48	-5.86	-0.0241	0.9759
Dec	-5.59	-6.54	-7.26	-5.55	-0.0280	0.9720
01-Jan	11.02	9.90	14.30	12.49	-0.0102	0.9898
Feb	3.16	3.38	1.80	3.40	-0.0258	0.9742
Mar	-2.16	0.65	0.22	-0.17	-0.0105	0.9895

(Annualized returns: 2.46 4.20
7.18 19.00)

Above table shows the returns from the each sources, all four funds and market return as well. Among the all source Sundaram has shown low return in the month of june2011.and the vice versa Sundaram has shown highest return in jan2012. From the annualized return we can clearly observe that among the all other sources, HDFC growth has outperformed and SBI has performed comparatively less.

Table -3 Risk return profile Computation of Sharpe, Trenor, and Fama for the year 2011-2012

	SBI Mutual Fund (sbi blue chip fund)	Tata equity management Mutual Fund	Sundaram Mutual Fund growth	HDFC MUTUAL FUND(GROWTH)
(amt in %)				
Mean	0.24	0.3	0.23	0.33
Std.Deviation	3.79	3.09	4.03	3.46
Sharpe Ratio	0.04	0.06	0.03	0.06
Beta	0.9	0.71	0.96	0.8
Treynor	0.15	0.27	0.13	0.28
Fama	0.01	0.11	-0.02	0.11

From above table we can conclude that mean of all four funds is showing nearby amount. Means there is no much difference in mean of the funds. for all funds they indicated very much near risk return profile because of time factor or trends in industry. In that we can say that both growth and equity funds had almost near coefficient of variation. Then Risk adjusted performance measure in the form of Sharpe ratio has been calculated for all four funds. The range of excess return over risk free return per unit of total risk is ranging from 0.4 % to 0.6%.It indicating that risk return profile of both type of plans are similar. Higher value of treynor's ratio indicates better performance of portfolio and vice versa. From above table we can say that TATA equity management mutual fund and HDFC mutual fund have has performed well in relative measure.

Hypothesis Testing:
The below is the statistical test conducted to find whether growth plan outperformed the equity plans and also to check the relationship between investment patterns and performance of selected funds in India.

Ho: There is no significant difference in the average monthly return of selected source

Ha: There is significant difference in the average monthly return of selected source.

Calculated value of F is greater (119.04) than table Value (2.16), which gives enough evidence to

Reject the null hypothesis at a 5% level of significance. It means that there is significance difference in the average return of different months of selected mutual fund scheme.Ho rejected(Month/Row) means there is difference in return of various schemes and also their timings.

Conclusion & Recommendation:
In today a general investor or prospects are confused in choosing of the investment in mutual funds as there are numerous schemes available. This study has aimed to check various investment patterns based on their attributes which effect on their returns. There are different patterns i.e. Growth, Dividend, Bonus and Cumulative plans. The study has mainly focused on the selected mutual funds into the various Investment Patterns and as well to check and analyze the performance of selected mutual funds and its relationship with each other.

This study clearly indicates that the schemes have shown very close average monthly returns whether they are growth fund or Dividend funds. Another finding of the study is that there is no significant difference in monthly return of the various schemes. If any investor wants to make investment in mutual funds then he or she needs to make investment at right time. The statistical tests also support these findings. But the study was carried over a one year period; the period itself is a short span for any detailed research. Sample size is also too small to carry out any strong recommendation. However the findings of the study have to be taken with some care, as market was generally good during study period. There is need to carry out a further study in more comprehensive manner to cover all other issues in mutual funds industry.

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