

Performance Evaluation of Equity Mutual Funds (On Selected Equity Large Cap Funds)

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ABSTRACT: *In India capital market provide various investment avenues to the investors, to help them to invest in various industries and to ensure the profitable return . Among various financial products, mutual fund ensures the minimum risks and maximum return to the investors, Growth and developments of various mutual funds products in the Indian capital market has proved to be one of the most catalytic instruments in generating momentous investment growth in the capital market. In this context, close monitoring and evaluation of mutual funds has become essential. Therefore, choosing profitable mutual funds for investment is a very important issue. This study, basically, deals with the equity mutual funds that are offered for investment by the various fund houses in India, This study mainly focused on the performance of selected equity large cap mutual fund schemes in terms of risk- return relation ship . The main objectives of this research work is to analysis financial performance of selected mutual fund schemes through the statistical parameters such as (alpha ,beta, standard deviation, r-squared, Sharpe ratio) . The findings of this research study will be help full to investors for his future investment decisions.*

Keywords: (*mutual fund industry, equity mutual funds , statistical tools.*)

I. INTRODUCTION

The SEBI regulations, 1993 defines a mutual fund as “a fund in the form of a trust by a sponsor, to raise money by the trustees through the sale of units to the public, under one or more schemes, for investing in securities in accordance with these regulations”. A mutual fund is a professionally-managed firm of collective investments that pools money from many investors and invests it in stocks, bonds, short-term money market instruments, and/or other securities. In a mutual fund, the fund manager, who is also known as the portfolio manager, trades the fund's underlying securities, realizing capital gains or losses, and collects the dividend or interest income. The investment proceeds are then passed along to the individual investors. The value of a share of the mutual fund, known as the net asset value per share (NAV), is calculated daily based on the total value of the fund divided by the number of shares currently issued and outstanding.

In few years Mutual Fund has emerged as a tool for ensuring one's financial wellbeing. Mutual Funds have not only contributed to the India growth story but have also helped families tap into the success of Indian Industry. As information and awareness is rising more and more people are enjoying the benefits of investing in mutual funds. The main reason the number of retail mutual fund investors remains small is that nine in ten people with incomes in India do not know that mutual funds exist. But once people are aware of mutual fund investment opportunities, the number who decide to invest in mutual funds increases to as many as one in five people. With emphasis on increase in domestic savings and improvement in deployment of investment through markets, the need and scope for mutual fund operation has increased tremendously. . In this context, it becomes pertinent to study the performance of the Indian mutual fund industry. Thus the involvement of mutual funds in the transformation of Indian economy has made it urgent to view their services not only as a financial intermediary but also as a pacesetter as they are playing a significant role in spreading equity culture The relation between risk-return determines the performance of a mutual fund scheme. As risk is commensurate with return, therefore, providing maximum return on the investment made within the acceptable associated risk level helps in demarcating the better performers from the laggards.

II. EQUITY FUNDS

Equity funds have the objective to provide capital appreciation over a long term. A major portion of their investments is in equities which provide potentially superior returns than other avenues of investment. Equity schemes offer potentially the best possible returns among all mutual fund schemes but carry the highest risk as well.

The equity funds are high on the risk scale as the share prices are volatile. These funds try to reduce the risk by diversifying the investments in different types of shares. One of the greatest advantages of equity funds is instant diversification. Also, it is usually easier and less expensive to invest in equity funds than to buy each and every stock in a fund's portfolio. Equity funds are also cheaper -- they're a way to avoid the often higher transaction costs and lower liquidity associated with trading individual stocks.

III. REVIEW OF LITERATURE

A large number of studies have been done on the growth and financial performance of mutual funds.

Treynor (1965) presents a new way of viewing performance results. He attempted to rate the performance of mutual funds on a characteristics line graphically. The steeper the line, the more systematic risk or volatility a fund possesses. By incorporating various concepts, he developed a single line index, T_n , called Treynor index.

Sharpe (1966) explains in a modern portfolio theory context that the expected return on an efficient portfolio and its associated risk (unsystematic risk) are linearly related. By incorporating various concepts he developed a Sharpe index. In this paper he attempted to rate the performance on the basis of the optimal portfolio with the risky portfolio and a risk-free asset is the one with the greatest reward-to-variability. The unsystematic risk is related to particular security due to inefficient management.

Fama (1972) developed methods to distinguish observed return due to the ability to pick up the best securities at a given level of risk from that of predictions of price movements in the market. He introduced a multi-period model allowing evaluation on a period-by-period and on a cumulative basis. He branded that, return on a portfolio constitutes of return for security selection and return for bearing risk. His contributions combined the concepts from modern theories of portfolio selection and capital market equilibrium with more traditional concepts of good portfolio management.

Barua and Varma (1991) evaluated the performance of master share (1987-1991) using CAPM approach from the view point of large investors, small investors and from fund management. The study had used ET Index as a proxy for market behavior. The risk adjusted performance is measured by using Sharpe, Jensen and Treynor measures. They used capital market line to study the risk return relationship of the fund from the perspective of large investors and security market line for small investors. The study concludes that the fund performed better than the market for small investors and fund management but the fund did not do well when compared to CML.

Ms. Rajeswari T.R., Prof. V.E. Rama Moorthy (2001) in the paper "An Empirical Study on Factors Influencing the Mutual Fund Scheme Selection by Retail Investors" have expressed that mutual fund is a retail product designed to target small investors, salaried people and others who are not intimidated by the mysteries of stock market but, nevertheless, like to reap the benefits of stock market investing. At the retail level, investors are unique and are a highly heterogeneous group. Hence, their fund/scheme selection also widely differs

Shome (1994) based on growth schemes examined the performance of the mutual fund industry between April 1993 to March 1994 with BSE SENSEX as market surrogate. The study revealed that, in the case of 10 schemes, the average rate of return on mutual funds were marginally lower than the market return while the standard

Gupta Ramesh (1989) evaluated fund performance in India comparing the returns earned by schemes of similar risk and similar constraints. An explicit risk-return relationship was developed to make comparison across funds with different risk levels. His study decomposed total return into return from investors risk, return from managers' risk and target risk. Mutual fund return due to selectivity was decomposed into return due to selection of securities and timing of investment in a particular class of securities.

Gupta and Sehgal (1998) evaluated performance of 80 mutual fund schemes over four years (1992-96). The study tested the proposition relating to fund diversification, consistency of performance, parameter of performance and risk-return relationship. The study noticed the existence of inadequate portfolio diversification and consistency in performance among the sample schemes

Roshni Jayam's (2002) study brought out that equities had a good chance of appreciation in future. The researcher was of the view that, investors should correctly judge their investment objective and risk appetite before picking schemes, diversified equity funds were typically safer than others and index funds were the best when market movements were not certain. The researcher suggested Systematic Withdrawal Plan (SWP) with growth option was more suitable for investors in need of regular cash inflows.

Jenson, Michal C. (1967),|| The Performance of Mutual Funds in the Period 1945 – 1964||, The Journal of Finance, Vol 23, No. 2, pp.389 – 416. The research paper indicates the past performance of the fund, predict the future demand of the fund, investors attract to invest in Mutual Fund.

Carhart, Mark M.1997, on persistence in mutual fund performance, *Journal of Finance* 52, 57—82. On determination of the fund performance need to identification risk and measures fund return. The paper demonstrate how to identified scheme and diversification of the portfolio. The portfolio need to adjustment risk

IV. OBJECTIVIES

- 1) To study the performance of a growth scheme of a selected mutual funds
- 2) To examine the return from the selected mutual fund
- 3) To know whether the mutual funds are able to provide reward to variability and volatility
- 4) To identified security market return with fund return.

V. SCOPE OF THESTUDY

The present study comprises of 5 mutual fund schemes launched by different private sector. The time period of this research work is from Jan1st 2010 to Dec 2012. The NAV of the selected scheme have been compared for three years with an annual return. Then these schemes have been compared with the bench mark return to evaluate the performance of these schemes.

VI. DATA COLLECTION

The present study is based on secondary data which is collected from various sources like published annual reports of the sponsoring agencies, online bulletins, journals books, magazines, brochures, newspapers and other published and online material.

VII. RESEARCH METHODOLGY

The present study made an attempt to analyze the performance of the selected mutual fund schemes with the market during the period of the study . In order to achieve the objectives an analysis has been made to compare these schemes with the market on the basis of risk and return. Different statistical and financial tools are used to evaluate the performance of these mutual fund schemes under the present study. These tools and techniques include standard deviation, beta, alpha, R squared, Sharpe ratio.

VIII. STATISTICAL TOOLS

Alpha: Alpha basically is the difference between the returns an investor expects from a fund A positive alpha means the fund has outperformed its benchmark index. Whereas a negative alpha indicates an underperformance of the fund. The more positive an alpha the healthier for investors.

Beta: Beta is a measure of the volatility of a particular fund in comparison to the market as a whole, that is, the extent to which the fund's return is impacted by market factors. Beta is calculated using a statistical tool called 'regression analysis.' By definition, the market benchmark index of Sensex and Nifty has a beta of 1.0. Conservative investors should focus on mutual funds schemes with low beta. Aggressive investors can opt to invest in mutual fund schemes which have higher beta value for higher returns taking more risk.

Standard Deviation (SD): The total risk (market risk, security-specific risk and portfolio risk) of a mutual fund is measured by 'Standard Deviation' (SD). In mutual funds, the standard deviation tells us how much the return on a fund is deviating from the expected returns based on its historical performance. In other words can be said it evaluates the volatility of the fund. The standard deviation of a fund measures this risk by measuring the degree to which the fund fluctuates in relation to its average return of a fund over a period of time. In other words, it is a measure of the consistency of a mutual fund's returns. A higher SD number indicates that the net asset value (NAV) of the mutual fund is more volatile and, it is riskier than a fund with a lower SD.

Sharpe Ratio: Sharpe ratio (SR) is another important measure that evaluates the return that a fund has generated relative to the risk taken. Risk here is measured by SD. It is used for funds that have low correlation with benchmark index. This ratio helps an investor to know whether it is a safe bet to invest in this fund by taking the quantum of risk. The higher the Sharpe ratio (SR), the better a fund's return relative to the amount of risk taken. In other words, a mutual fund with a higher SR is better because it implies that it has generated higher returns for every unit of risk that was taken. On the contrary, a negative Sharpe ratio indicates that a risk-free asset would perform better than the fund being analyzed.

R-squared R-squared measures the relationship between a portfolio and its benchmark. It can be thought of as a percentage from 1 to 100. R-squared is not a measure of the performance of a portfolio. A great portfolio can have a very low R-squared. It is simply a measure of the correlation of the portfolio's returns to the benchmark's returns. R-squared can be used to ascertain the significance of a particular beta or alpha. Generally, a higher R-squared will indicate a more useful beta figure. If the R-squared is lower, then the beta is less relevant to the fund's performance

General Range for R-Squared:

- 70-100% = good correlation between the portfolio's returns and the benchmark's returns
- 40-70% = average correlation between the portfolio's returns and the benchmark's returns
- 1-40% = low correlation between the portfolio's returns and the benchmark's returns

IX. FINDINGS

- 1) Table (1) explains about the comparative NAV(Net Asset value) for the selected mutual funds schemes. At the end of the year 2010 NAV & TOTAL RETURN for selected schemes (Franklin India blue chip 228.33& 22.96, DSPBR TOP 100 106.43&16.80, HDFC TOP 200 225.66&25.05, Reliance Vision 290.35&15.26, ICICI Prudential top 100 144.59&17.54. In the year 2011 JAN 03 opening point of CNX Nifty were 6017.45 at the end of 2011 Dec 30 closing point of CNX Nifty were 4624.30 hence there was a decrease in nifty in the year 2011 which was 1493.15 point. This shows a great fall in stock market growth because of high inflation rate and high interest rate in our economy affect the growth of GDP of our country in the year 2010 the GDP rate was 8.9 percent but in the year 2011 the GDP rate was 6.9 percent hence this reveals that there was a fall in NAV of the selected scheme and the fall in NAV of the scheme shows negative return in total return of the selected schemes (Franklin India blue chip 186.66&-18.25, DSPBR TOP 100 85.31&-19.85, HDFC TOP 200 107.83&-24.30, Reliance Vision 207.47&-28.55, ICICI Prudential top 100 115.20&-20.33). In the year 2012 Jan 02 the opening point of CNX Nifty were 4640.20 , Dec 31 2012 closing point of CNX Nifty were 5905.10, hence there was an increasing point in CNX Nifty were 1269.90 this happens mainly due to changes in finance minister post and changes in political conditions of a country hence there was a boom in the stock market and this predict the rise in the NAV &TOTAL RETURN in the selected schemes (Franklin India blue chip 236.67& 26.79, DSPBR TOP 100 111.14&30.29, HDFC TOP 200 226.24&32.43, Reliance Vision 269.66&29.98, ICICI Prudential top 100 153.02&32.83)
- 2) Table (2) reveals about the statistical parameters used to analyze the performance of the selected mutual fund scheme .
 - ❖ In Franklin India blue chip fund (growth) it has beta value of fund 0.81 and alpha value of fund is 2.34 which says that the fund is less volatile to bench mark indices and it has performed well by providing an better return to the investors where else it has an standard deviation of fund is 16.03 it shows that the funds risk factor is below average and overall the fund has performed well, R- Squared value of fund is 0.97 hence the fund has good correlation between funds return with its benchmark return
 - ❖ In HDFC TOP 200 fund (growth) it has beta value of fund is 0.98 and alpha value of fund is 1.98 which means the fund is more volatile to the bench mark indices and it has performed well in more volatile market . where it has an standard deviation of fund is 19.50 that means the fund has high risk factor and also provided high return to the investors, R-Squared value of a fund is 0.94 it has good correlation with its benchmark return
 - ❖ In Reliance Vision fund (growth) it has beta value of 0.99 and alpha value of -2.82 the fund has more volatile to its bench mark indices and the negative value of alpha it has been under performed to the market movements , where standard deviation of fund is 19.88 that means the fund is high risky, R-Squared value of a fund is 0.90 it has good correlation with its benchmark return but has only above average return to the investors
 - ❖ In DSPBR TOP 100 Reg fund(growth) it has beta value of 0.86 and alpha value of 0.92 the fund is less volatile to its benchmark indices and the alpha value of the fund says that the fund has performed below to market movements. Where standard deviation of fund is 17.18 that means the fund is average risk and provided better return to the investors. R-Squared value of a fund is 0.94 it has good correlation with its benchmark return
 - ❖ In ICICI Prudential top 100 reg fund (growth) it has beta value is 0.94 and alpha value is 2.90.the fund beta value says its more volatile to its bench mark indices and alpha value of the fund says that it has performed well in the market. The standard deviation of the fund is 18.47 says that the fund s above

- average risky and provide high return to the investors. , R-Squared value of a fund is 0.96 it has good correlation with its benchmark return
- 3) Table (3) explains about the performance of a selected fund based on Sharpe ratio and ranking of the fund is made on their highest ratio. A higher Sharpe ratio is therefore better as it represents a higher return generated per unit of risk. In ICICI Prudential top 100 fund ratio were 0.21% which gives good return at high risk and have 1st rank where Reliance vision fund has only 0.02 % which has high risk with below average return having 5th rank. Where other funds have HDFC top 200 have 0.15% and rank as 3rd , Franklin India blue chip fund have 0.19% and rank as 2nd , DSPBR top 100 fund have 0.10% and rank as 4th .
 - 4) Table (4) explains about the comparison made between funds return and its bench mark return (1) HDFC TOP 200 has its benchmark in BSE 200 its fund return as 22.60%, but it has its benchmark return as 16.42% in 3 years. The difference between the return was 6.18% .This shows that fund has performed well in this 3 year period.
 - (2) FRANKLIN INDIA BLUE CHIP has its benchmark in SENSEX its funds return as 20.61% and has its benchmark return as 14.78% in 3 years. The difference between the return was 5.83%. Over all fund has performed well in this time period.
 - (3) DSPBR TOP 100 has its benchmark in BSE 100 its funds return and benchmark return is 19.47% and 15.65% in 3 years. The difference between the return was 3.82%. The funds performance was average with other funds
 - (4) RELIANCE VISION has its benchmark in BSE 100 its funds return and benchmark return is 19.06% and 15.87% in 3 years. The difference between the return was 3.19%. Over all fund has performed below average in this 3 years
 - (5) ICICI PRUDENTIAL TOP 100 has its benchmark in CNX NIFTY its fund return and benchmark return is 30.04% and 21.03% in 3 years. The difference between the return was 9.01%. Over all fund has performed well in this 3 years. Data Analysis

Table (1) Comparative Statement of Nav and Total Return for the Selected Mutual Fund Schemes

Name Of The Scheme	Nav For 2010(Rs)	Total Return For 2010(%)	Nav For 2011(Rs)	Total Return For 2011(%)	Nav For 2012(Rs)	Total Return For 2012(%)
Franklin India Blue Chip	228.33	22.96	186.66	-18.25	229.71	26.79
Dspbr Top 100 Reg	106.43	16.80	85.31	-19.85	111.14	30.29
Hdfc Top 200	225.66	25.05	170.83	-24.30	226.24	32.43
Reliance Vision	290.35	15.26	207.47	-28.55	226.24	29.98
Icici Prudential Top 100	144.59	17.54	115.20	-20.33	153.02	32.83

Table (2) Performance Analysis Based On Statistic Parameters

Name Of The Scheme	Beta (B)	Alpha (A)	Standard Deviation(Σ)	R- Squared
Franklin India Blue Chip	0.81	2.34	16.03	0.97
Hdfc Top 200	0.98	1.98	19.50	0.94
Reliance Vision	0.99	-2.82	19.88	0.90
Dspbr Top 100 Reg	0.86	0.92	17.18	0.94
Icici Prudential Top100	0.94	2.90	18.47	0.96

Table (3) Performance Analysis Based On Sharpe Ratio Analysis And Ranking

Name Of The Scheme	Sharpe Ratio	Rank
Franklin India Blue Chip	0.19	2
Hdfc Top 200	0.15	3
Reliance Vision	0.02	5
Icici Prudential Top 100	0.21	1
Dspbr Top 100 Reg	0.10	4

Table (4) Comparative Analyses between Fund and Bench Mark Return

Name Of The Fund	Bench Mark	3 Year Return	Bench Mark Return
Hdfc Top 200	Bse 200	22.60 %	16.42%
Franklin India Blue Chip	Sensex	20.61%	14.78%
Dspbr Top 100 Reg	Bse 100	19.47%	15.65%
Reliance Vision	Bse 100	19.06%	15.87%
Icici Prudential Top 100	Cnx Nifty	30.04%	21.03%

X. CONCLUSIONS

From foregoing performance analysis of the selected five equity large cap funds, its clear that all the funds have performed well during the study period. The fall in the CNX NIFTY during the year 2011 has impacted the performance of all the selected funds. In the ultimate analysis it may be concluded that all the funds have performed well in the high volatile market movement expect Reliance vision . therefore it is essential for investors to consider statistical parameters like alpha, beta, standard deviation while investing in mutual funds apart from considering NAV and TOTAL RETURN in order to ensure consistent performance of mutual funds.

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