

Performance Evaluation of Selected Large Cap Equity Mutual Funds: An Analytical Review

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Abstract: The Indian capital market offers many investment possibilities to investors, allowing them to participate in a variety of businesses while ensuring a profitable return. Among the different financial instruments available, mutual funds provide investors with the lowest possible risk and the highest possible return. The expansion and development of various mutual funds products in the Indian capital market has shown to be one of the most catalytic devices in creating significant investment growth in the capital market. Close monitoring and evaluation of mutual funds has become critical in this scenario. As a result, selecting lucrative mutual funds for investment is critical. This study focuses on the equity mutual funds offered for investment by various fund institutions in India. The primary emphasis of this research was on the performance of selected equities large cap mutual fund schemes in terms of risk-return relationship ship. The primary goal of this research is to examine the financial performance of selected mutual fund schemes using statistical characteristics such as (alpha, beta, standard deviation, r-squared, and Sharpe ratio). This research study's conclusions will be extremely beneficial to investors in making future investment selections.

Keywords: mutual fund industry, equity mutual funds , statistical tools.

I. INTRODUCTION

A mutual fund is defined in the SEBI regulations of 1993 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 line with these regulations." A mutual fund is a professionally managed collective investment vehicle that pools money from multiple investors and invests it in stocks, bonds, short-term money market instruments, and/or other securities. The fund manager, also known as the portfolio manager in a mutual fund, trades the fund's underlying securities, earning capital gains or losses and collecting dividend or interest income. The investment proceeds are subsequently distributed to individual investors. The net asset value per share (NAV) of a mutual fund share is computed daily based on the total value of the fund divided by the number of shares currently issued and outstanding.

Mutual funds have evolved as a strategy for guaranteeing one's financial well-being in recent years. Mutual funds have not only contributed to India's growth storey, but they have also enabled families to participate in the success of Indian industry. As information and understanding spread, an increasing number of people are reaping the benefits of investing in mutual funds. The fundamental reason for the low number of retail mutual fund investors in India is that nine out of ten people with income in India are unaware of the existence of mutual funds. However, once people are aware of mutual fund investing prospects, the percentage of people who decide to invest in mutual funds rises to one in every five. With a focus on increasing domestic savings and improving investment deployment through markets, the necessity for and scope for mutual fund operations has grown dramatically. In this context, it is necessary to investigate the performance of the Indian mutual fund business. As a result of mutual funds' involvement in the restructuring of the Indian economy, it is critical to regard their services not only as a financial intermediary but also as a pacesetter, as they play a vital role in spreading equity culture. The performance of a mutual fund scheme is determined by the risk-return relationship. Because risk is proportional to return, offering the highest return on investment within the allowed related risk level aids in distinguishing the better performers from the laggards.

II. EQUITY FUNDS

The goal of equity funds is to generate long-term capital appreciation. A large amount of their investments are in equities, which have the potential to deliver higher returns than other investment options. Equity schemes have the potential for the largest profits of any mutual fund scheme, but they also have the biggest risk.

Because share values are volatile, equity funds rank high on the risk scale. These funds attempt to reduce risk by diversifying their assets in several types of stocks. One of the most significant benefits of equity funds is quick diversification. Furthermore, investing in equity funds is typically easier and less expensive than purchasing each individual stock in a fund's portfolio. Equity funds are also less expensive since they allow you to avoid the often higher transaction charges and poorer liquidity that come 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 .

Trey nor (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 Trey nor 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 prospective 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 manager’s 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.”

IV. OBJECTIVES

- 1) To investigate the performance of a selected mutual fund’s growth scheme.
- 2) Examine the performance of the mutual fund of choice.
- 3) To determine whether mutual funds can give a reward for unpredictability and volatility.
- 4) To distinguish between security market return and fund return.

V. SCOPE OF THE STUDY

The current study includes five mutual fund schemes created by various private sector companies. This research was conducted between January 1st, 2010 and December 31st, 2012. The NAV of the chosen plan was compared to an annual return over a three-year period. The performance of these schemes was then evaluated by comparing them to the benchmark return.

VI. DATA COLLECTION

The current study is based on secondary data gathered from multiple sources such as sponsoring agencies’ published annual reports, online bulletins, journals, books, magazines, brochures, newspapers, and other published and online content.

VII. RESEARCH METHODOLOGY

The current study attempted to examine the performance of the selected mutual fund schemes in relation to the market during the study period. In order to attain the goals, an analysis was conducted to compare these schemes to the market in terms of risk and return. In the current study, several statistical and financial approaches are employed to analyse the performance of these mutual fund schemes. Standard deviation, beta, alpha, R squared, and Sharpe ratio are among the tools and strategies

available.

VIII. STATISTICAL TOOLS

Alpha: Alpha is defined as the difference between the expected and actual returns from a fund. A positive alpha indicates that the fund outperformed its benchmark index. A negative alpha means that the fund has underperformed. The higher the alpha, the better for investors.

Beta: Beta is a measure of a fund's volatility in contrast to the market as a whole, or the extent to which the fund's return is influenced by market conditions. The statistical tool known as "regression analysis" is used to calculate beta. The Sensex and Nifty market benchmark indexes have a beta of 1.0 by definition. Conservative investors should concentrate on low beta mutual fund strategies. Aggressive investors can choose to invest in mutual fund schemes with greater beta values in order to get larger returns while taking on more risk.

Standard Deviation (SD): A mutual fund's total risk (market risk, security-specific risk, and portfolio risk) is evaluated by "Standard Deviation (SD)." The standard deviation in mutual funds informs us how much a fund's return deviates from the predicted returns based on its past performance. In other words, it assesses the volatility of the fund. The standard deviation of a fund assesses this risk by calculating how much the fund changes in contrast to its average return over time. In other words, it is a measure of how consistent the returns of a mutual fund are. A higher SD figure suggests that the mutual fund's net asset value (NAV) is more volatile and riskier than a fund with a lower SD.

Sharpe Ratio: Another key metric is the Sharpe ratio (SR), which compares the return delivered by a fund to the risk taken. SD is used to quantify risk in this context. It is applied to funds with a low correlation to the benchmark index. This ratio informs an investor as to whether it is a safe bet to invest in this fund while assuming a certain amount of risk. The higher a fund's Sharpe ratio (SR), the better its return relative to the amount of risk absorbed. In other words, a greater SR mutual fund is better because it means that it has earned larger returns for every unit of risk taken. A negative Sharpe ratio, on the other hand, shows that a risk-free asset would outperform the fund under consideration.

R-squared The link between a portfolio and its benchmark is measured by R-squared. It can be compared to a percentage ranging from 1 to 100. R-squared is not a metric for portfolio performance. The R-squared of a superb portfolio can be very low. It is just a measure of the portfolio's return correlation to the benchmark's return. R-squared can be used to determine the importance of a specific beta or alpha. In general, a higher R-squared value indicates a more meaningful beta value. If the R-squared value is smaller, the beta is less important 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) compares the NAV (Net Asset Value) of the selected mutual funds schemes. NAV & TOTAL RETURN for selected schemes at the end of 2010 (Franklin India blue chip 228.34 & 22.97, DSPBR TOP 100 106.44 & 16.81, HDFC TOP 200 225.65 & 25.06, Reliance Vision 290.25 & 15.27, ICICI Prudential top 100 144.49 & 17.53). In the year 2011, the opening point of the CNX Nifty on January 3, 2011 was 6017.45, and the closing point of the CNX Nifty on December 30, 2011 was 4624.30, resulting in a 1493.15 point fall in the nifty in 2011. This demonstrates a significant fall in stock market growth as a result of high inflation and interest rates in our economy, which affect the growth of GDP in our country. In 2010, the GDP rate was 8.9 percent, but in 2011, the GDP rate was 6.9 percent, revealing that there was a fall in NAV of the selected scheme, and the fall in NAV of the scheme shows a negative return in total return of (Franklin India blue chip 186.67 & -18.23, DSPBR TOP 100 85.33 & -19.86, HDFC TOP 200 170.85 & -24.32, Reliance Vision 207.45 & -28.57, ICICI Prudential top 100 115.22 & -20.34). In the year 2012, the opening point of the CNX Nifty was 4640.20, and the closing point of the CNX Nifty was 5905.10, indicating that there was an increasing point in the CNX Nifty of 1269.90. This occurs primarily due to changes in finance minister posts and changes in political conditions of a country, resulting in a boom in the stock market and predicting a rise in the NAV & TOTAL RETURN in the selected DSPBR TOP 100 111.15 & 30.27, HDFC TOP 200 226.26 & 32.41, Reliance Vision 226.26 & 29.97, ICICI Prudential Top 100 153.02 & 32.84)

2) Table (2) reveals about the statistical parameters used to analyze the performance of the selected mutual fund scheme .

➤ Franklin India blue chip fund (growth) has a beta value of 0.82 and an alpha value of 2.35, indicating that the fund is less volatile than benchmark indices and has done well by offering a higher return to investors. Otherwise, the fund's standard deviation is 16.04, indicating that the fund's risk factor is below average and that the fund has performed well overall. The fund's R-squared value is 0.98, indicating that the fund has a high correlation between its return and its benchmark return.

➤ The beta value of the HDFC TOP 200 fund (growth) is 0.97 and the alpha value of the fund is 1.97, indicating that the fund is more volatile than the benchmark indices and has fared well in more volatile markets. The fund's standard deviation is 19.51, indicating that it has a high risk component while also providing a high return to investors. The fund's R-Squared value is 0.95, indicating that it has a good connection with its benchmark return.

➤ Reliance Vision fund (growth) has a beta value of 0.98 and an alpha value of -2.81, indicating that the fund is more volatile

than its benchmark indices and that the negative value of alpha indicates that the fund has underperformed market movements. The fund's standard deviation is 19.87, indicating that it is high risky. The fund's R-squared value is 0.91, indicating that it has a good correlation with its benchmark return but

➤ DSPBR TOP 100 Reg fund (growth) has a beta value of 0.87 and an alpha value of 0.93, indicating that the fund is less volatile than its benchmark indexes. The alpha value of the fund indicates that the fund has done poorly in response to market fluctuations. When the fund's standard deviation is 17.19, it suggests the fund is of average risk and provides a greater return to investors. A fund's R-Squared value is 0.93, indicating that it has a good connection with its benchmark return.

➤ The beta value of ICICI Prudential top 100 reg fund (growth) is 0.95, and the alpha value is 2.91. The fund's beta number indicates that it is more volatile than its benchmark indices, while the fund's alpha value indicates that it has fared well in the market. The fund's standard deviation of 18.48 indicates that the fund is above average hazardous and provides a high return to investors. A fund's R-Squared value is 0.95, indicating that it has a good connection with its benchmark return.

3) Table (3) explains the performance of a selected fund based on Sharpe ratio, and the fund is ranked based on their highest ratio. A greater Sharpe ratio is thus preferable since it reflects a bigger return per unit of risk. In the ICICI Prudential top 100 fund ratio was 0.20 percent, which delivers a decent return at a high risk and ranks first, while Reliance Vision fund has only 0.03 percent, which has a high risk and a below-average return and ranks fifth. Whereas HDFC top 200 has 0.16 percent and ranks third, Franklin India blue chip fund has 0.18 percent and ranks second, and DSPBR top 100 fund has 0.11 percent and ranks fourth.

4) Table (4) explains about the comparison made between funds return and its bench mark return

➤ HDFC TOP 200 has a benchmark return of 22.70 percent in BSE 200, while it has a benchmark return of 16.45 percent in three years. The difference in returns was 6.25 percent. This demonstrates that the fund did well during the last three years.

➤ FRANKLIN INDIA BLUE CHIP has a benchmark return of 20.65 percent in SENSEX and a benchmark return of 14.79 percent in 3 years. The difference in returns was 5.86 percent. Overall, the fund fared well during this time period.

➤ The benchmark for DSPBR TOP 100 is the BSE 100. In three years, its fund return and benchmark return are 19.49 percent and 15.67 percent, respectively. The difference in returns was 3.82 percent. In comparison to other funds, the fund's performance was mediocre.

➤ RELIANCE VISION's benchmark in the BSE 100 is 19.07 percent, and its fund return and benchmark return in three years are 15.89 percent and 19.07 percent, respectively. The difference in returns was 3.18 percent. Overall, the fund has fared below average over the last three years.

➤ The CNX NIFTY serves as the baseline for the ICICI PRUDENTIAL TOP 100. In three years, the fund's and benchmark's returns are 30.08 percent and 21.05 percent, respectively. The difference in returns was 9.03 percent. Overall, the fund has fared well over the last three years. Data Examination

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	228.34	22.97	186.67	-18.23	229.72	26.77
Dspbr Top 100 Reg	106.44	16.81	85.33	-19.86	111.15	30.27
Hdfc Top 200	225.65	25.06	170.85	-24.32	226.26	32.41
Reliance Vision	290.25	15.27	207.45	-28.57	226.26	29.97
Icici Prudential Top 100	144.49	17.53	115.22	-20.34	153.03	32.84

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

Name Of The Scheme (B)	Beta	Alpha (A)	Standard Deviation(Σ)	R- Squared
Franklin India Blue Chip	0.82	2.35	16.04	0.98
Hdfc Top 200	0.97	1.97	19.51	0.95
Reliance Vision	0.98	-2.81	19.87	0.91
Dspbr Top 100 Reg	0.87	0.93	17.19	0.93
Icici Prudential Top100	0.95	2.91	18.48	0.95

Table (2) Performance Analysis Based On Statistic Parameters

Name Of The Scheme	Sharpe Ratio	Rank
Franklin India Blue Chip	0.18	2
Hdfc Top 200	0.16	3
Reliance Vision	0.03	5
Icici Prudential Top 100	0.20	1
Dspbr Top 100 Reg	0.11	4

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

Name Of The Fund	Bench Mark	3 Year Return	Bench Mark Return
Hdfc Top 200	Bse 200	22.70 %	16.45%
Franklin India Blue Chip	Sensex	20.65%	14.79%
Dspbr Top 100 Reg	Bse 100	19.49%	15.67%
Reliance Vision	Bse 100	19.07%	15.89%
Icici Prudential Top 100	Cnx Nifty	30.08%	21.05%

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

According to the previous performance analysis of the selected five equity big cap funds, all of the funds did well over the study period. The decline in the CNX NIFTY throughout 2011 has had an impact on the performance of all of the selected funds. In the end, it is possible to conclude that all of the funds, with the exception of Reliance Vision, did well in the highly turbulent market movement. In order to maintain consistent mutual fund performance, investors must consider statistical factors such as alpha, beta, and standard deviation in addition to NAV and TOTAL RETURN while investing in mutual funds.

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