



THE ANALYSIS OF MUTUAL FUND'S PERFORMANCE

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ABSTRACT :

This Research Proposal focuses on the Analysis of Mutual Fund's Performance by taking Open Ended Equity Mutual Fund Schemes. Three categories of mutual fund schemes (Equity Small Cap, Equity Mid Cap & Equity Large Cap) with reference to the commercial banks are selected for the study. (State Bank of India, Bank of India & Bank of Baroda- Public Bank, HDFC Bank & ICICI Bank-Private Bank). The objective of this research is to analyse the performance & measure the risk of mutual fund schemes through the Statistical Parameters, Ratio Analysis & Returns. The outcome of this research is concerned with the returns on the mutual fund investment with the risk. The preference is determined by the comparison of the Statistical Parameters & the Returns. This comparison helps to measure the risk & the performance of the Mutual Fund. SBI Mutual Fund is the most preferred in the public sector. HDFC Mutual Fund & ICICI Mutual Fund are the most preferred in the private sector. The research will help the investors for their investments in mutual fund schemes & change the preference & habit of their investment.

KEYWORDS : Mutual Fund, Performance, Parameters, Risk, Returns, Small Cap, Mid Cap & Large Cap

INTRODUCTION MUTUAL FUND

Mutual Fund is a recent investment trend in the financial market. It is an investment, where investors pool their money together in a single professionally managed fund.

Mutual Fund has four main components such as investor, fund manager, research team & returns. Mutual fund is a way of collecting money from investors. It gives an opportunity to invest money in the capital market indirectly with minimum risk. It also encourages the investors to earn more returns by the investment.

TYPES OF MUTUAL FUND

- **DEBT FUND-Debt funds** are those funds which are owed by the company for short term such as bonds, debentures & term loan. These funds have comparatively high liquidity. There is less risk in the debt fund.
- **EQUITY FUND-Equity funds** are those funds which are owned or raised by the company for long term such as shares like equity shares & preference shares. These funds have low liquidity. There is a high risk in the equity fund.
- **HYBRID FUND-Hybrid funds** have a combination of both debt and equity. Some investors invest in gold along with either debt or equity or both. There is balanced risk in hybrid fund. It can be high or low.

STATISTICAL PARAMETERS

ALPHA-Alpha refers to an excess of the actual returns on the investment over the fund's expected returns based on its beta. If Alpha is positive, then the fund's performance is well. If Alpha is negative, a fund is not performing well.

BETA-Beta measures the fund's volatility or systematic risk in the market. If a beta is greater than one, then there is more risk in the investment than the market. If a beta is less than one, there is less risk in the investment than the market.

R-SQUARED-R-Squared measures the fund's movement in the market in the form of percentage. R-Squared value should be higher i.e. between 85-100 which is better for the fund's performance. If there is a lower R-squared i.e. less than 70%, it is less appropriate to the fund's performance.

SHARPE RATIO-Sharpe Ratio uses standard deviation & excess returns to indicate the reward per unit of risk. If the Sharpe Ratio is higher, it is better for the fund's historical risk-adjusted performance. Sharpe Ratio helps the investors to know, whether the returns on investment are due to the investment decisions or the impact of excess risk.

STANDARD DEVIATION-The range of a fund's performance measured by Standard Deviation. If the standard deviation is greater, then there is more risk of the investment in the market & vice-versa. It helps to know, how much the return on a fund is differentiating from the expected returns based on its historical performance.

EXPENSE RATIO-The expense ratio is the relationship between a fund's operating expenses & the value for all the assets under the management. It is the cost to manage the mutual fund. Operating expenses reduce the fund's assets, which lead to reduce the returns. It can be calculated by dividing total fund costs by total fund assets. If the expense ratio is low, it is better for the returns & vice-versa.

MUTUAL FUND SCHEMES

Mutual Fund Schemes are categorised as Small Cap Fund, where risk is high & returns are high, Mid Cap Fund, where risk is mid & returns are mid, Large Cap Fund, where risk is low & returns are moderate. There is another scheme called as Multi Cap Fund in which there is a combination of all three schemes.

Mutual funds collect money from all type of investors. Each investor has different choice & preference of the investment. Investor can invest money in any mutual fund scheme as per his choice. He should have ability of taking a risk for earning high returns.

SYSTEMATIC INVESTMENT PLAN

Systematic Investment Plan is the most popular in Mutual Fund Investment. It helps the investors to gain better returns regularly & consistently. It is a plan where the investors can invest money with same monthly amount & gain returns more than the inflation rate. Investment should be consistent & for long term.

LITERATURE REVIEW

Dr. S. Anand & Dr. V. Murugaiah in Goa Institute of Management, Goa (2003)- The purpose of this study is to apply the measurement tools of modern portfolio theory to the mutual fund's performance. The study examined the relationship between the fund and market return to understand the impact of fund's specific characteristics on the performance. It helped to evaluate the skills of the fund manager.

R. Nithya in the IFMR Chennai (2004)- This study analysed the performance of all the schemes available in the Franklin Templeton Mutual funds. It identified that the Asset Management Company which is performing well & the top schemes such as equity to emphasize the values of mutual funds. According to the study, Franklin Templeton Mutual funds performed well and met the expectations.

Jaspal Singh & Subhash Chander in Guru Nanak Dev University, Punjab (2006)- According to this research, the gold is the most preferred investment in the metals by the investors. Salaried investors

whose age between 20 to 35 years invest in equity-oriented schemes. Many investors invest their money in the yellow metals.

Deepak Agrawal in Truba College of Management & Technology Indore (2007)- The study analysed the Mutual Fund & its importance in the capital markets. It helped both the Fund-Manager and Fund-Investor. According to the study, the performance affected the investment & saving habits of the investors and the confidence & loyalty of the fund manager.

Prasath R. H. in Anna University (2009)- The study focused on the investment in mutual fund. HDFC mutual fund schemes considered for the study. The researcher calculated the Sharpe Ratio & NAV to select the best mutual fund scheme. If the investor cannot find the parameters like Standard Deviation and Beta, then NAV can be the best option to ascertain the performance.

PROBLEM STATEMENT OF THE STUDY

"To understand Mutual Fund Schemes' Performance by using different statistical parameters & aware the investors about the investment in the Mutual Fund, as they can start the investment in the Mutual Fund Schemes rather than the investment in other sources."

OBJECTIVES OF THE STUDY

1. To understand the performance & measure the risk of the Mutual Fund by using different statistical parameters.
2. To compare the various mutual fund's schemes of various commercial banks to find out the best scheme.
3. To know the best Mutual Fund Investment plan for the investment by studying the returns & expense ratio.

RESEARCH METHODOLOGY

Research is the systematic process in which the researcher collects the information & analyses it for his own understanding. It refers to a study of the topic deeply & strongly. Research helps to increase the knowledge about the particular topic.

DATA COLLECTION

Data Collection is a process of organising the data. Data collection starts after identifying the research problem. Data Collection is done for analysing & interpreting. There are two types of data collection are as follows:

PRIMARY DATA- The primary data is a fresh and used for the first time. I have collected primary data during the observations while my research. It is a new data as it is used by the researcher first time and nobody else has used this before. The primary data can be collected through following ways:

1. Observation Method
2. Discussion with Mutual Fund Adviser

SECONDARY DATA- The secondary data is an old or used & existing or not for the first time. It is used data & collected by everybody before. The secondary data can be collected through following ways:

1. Internet
2. Books
3. Journals

RESEARCH METHOD

Qualitative Research Method has been used to study, which includes observations & discussion with the mutual fund advisor. Observations are done while studying about the mutual fund. I have taken some inputs for the research, while discussing with the mutual fund advisor.

SAMPLING TECHNIQUE

Convenience sampling technique has been used to study. A sample of 3 Schemes & 5 Banks is selected for the study. Convenience sampling technique is better for the sampling as per the choices.

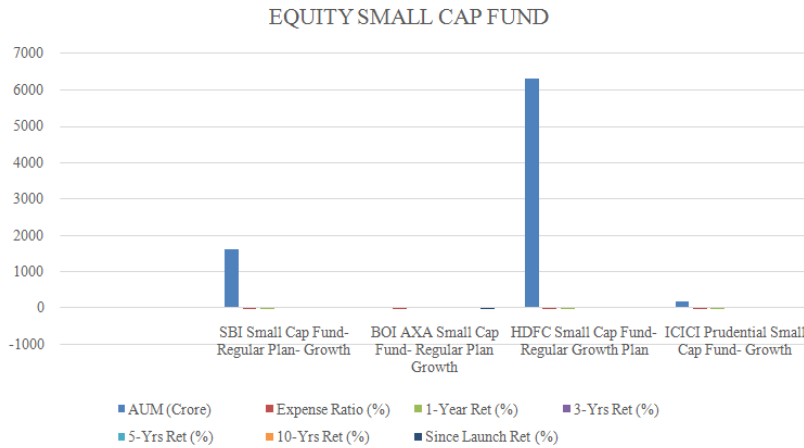
Convenience sampling technique is a type non-probability sampling technique in which the sample can be drawn from the population easily.

STATISTICAL TOOLS & TECHNIQUES

Statistical Parameters such as Alpha, Beta, R-Squared, Sharpe Ratio, Expense Ratio & Standard Deviation are used for the study, which are useful for indicating the performance & risk of the mutual fund schemes.

DATA ANALYSIS & INTERPRETATION EQUITY SMALL CAP FUND

Scheme Name (Data as on 19-03-19)	Launch Date	AUM (Crore)	Expense Ratio (%)	1-Year Ret (%)	3-Yrs Ret (%)	5-Yrs Ret (%)	10-Yrs Ret (%)	Since Launch Ret (%)
SBI Small Cap Fund- Regular Plan- Growth	05/09/2009	1,604.50	2.44	-8.05	19.06	28.67	-	18.76
BOI AXA Small Cap Fund- Regular Plan Growth	12/12/2018	34.58	2.98	-	-	-	-	4.9
HDFC Small Cap Fund- Regular Growth Plan	05/04/2008	6,311.85	2.12	-0.88	21.34	20.02	22.57	14.41
ICICI Prudential Small Cap Fund- Growth	18/10/2007	175.58	2.75	-11.55	10.12	12.51	17.2	8.22

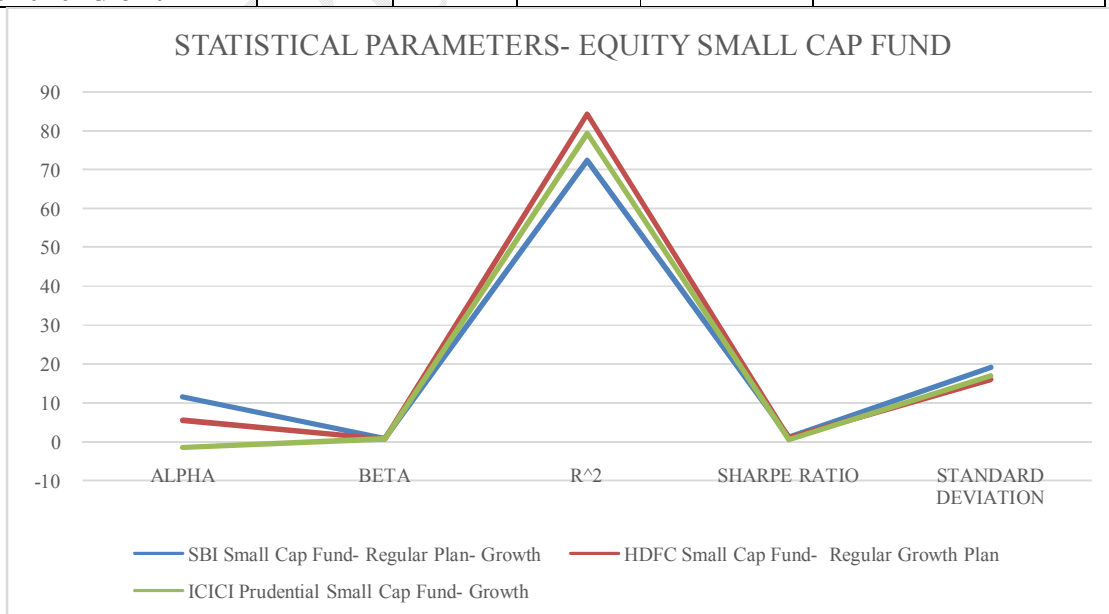


INTERPRETATION-

Equity Small Cap Funds are those funds where, risk is high, but returns are also high. Investors can get high returns, even there is high risk. Young investors can start their investment in the Equity Small Cap Fund. In the public sector, SBI Small Cap Fund gives high returns of 18.76, as there is an expense ratio of 2.44, where in the private sector, HDFC Small Cap Fund gives the returns of 14.41, as there is an expense ratio of 2.12. Investment is also huge in these two funds.

STATISTICAL PARAMETERS

NAME OF THE FUND	ALPHA	BETA	R ²	SHARPE RATIO	STANDARD DEVIATION
SBI Small Cap Fund- Regular Plan- Growth	11.52	0.79	72.46	1.17	19.17
HDFC Small Cap Fund- Regular Growth Plan	5.55	0.7	84.35	0.97	16.03
ICICI Prudential Small Cap Fund- Growth	-1.49	0.72	79.39	0.52	17.02



INTERPRETATION-

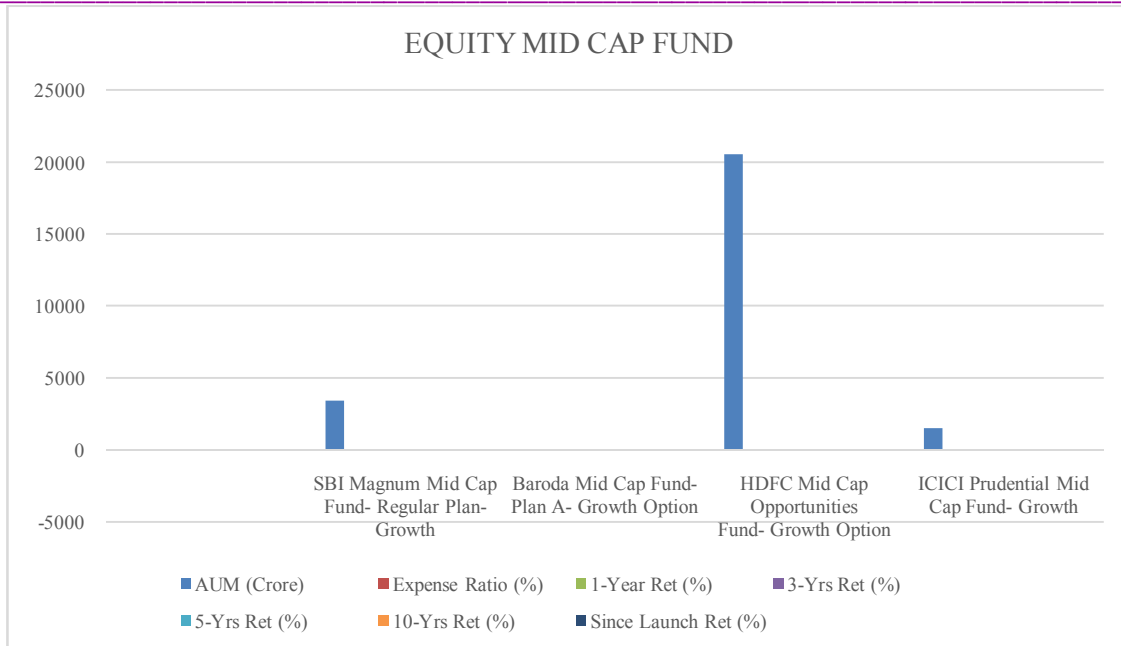
SBI Small Cap Fund- Regular Plan Growth has the best value of Alpha as compared to other schemes. It has 11.52 Alpha. So, it has performed better than its Beta. HDFC Small Cap Fund- Regular Growth Plan has Alpha value 5.55. ICIC Prudential SmallCap Fund- Growth has negative Alpha value i.e. -1.49, which indicates a fund has underperformed.

All small cap schemes have a Beta less than one. SBI Small Cap Fund- Regular Plan Growth has a Beta value of 0.79. HDFC Small Cap Fund- Regular Growth Plan has a Beta value of 0.70 & ICICI Prudential Small Cap Fund- Growth has 0.72 Beta value. It indicates that the investment is less risky than the market.

Each mutual fund scheme has more than 70 R-Squared, which indicates a more useful Beta figure. SBI has higher Sharpe Ratio i.e. 1.17. HDFC has Sharpe Ratio of 0.97 & ICICI has 0.52. It indicates that SBI Small Cap Fund has better historical risk-adjusted performance. SBI has Standard Deviation of 19.17, HDFC has Standard Deviation of 16.03 & ICICI has 17.02. SBI has the greater Standard Deviation than others, which indicates it has the greater fund's volatility than others.

EQUITY MID CAP FUND

Scheme Name (Data as on 19-03-19)	Launch Date	AUM (Crore)	Expense Ratio (%)	1-Year Ret (%)	3-Yrs Ret (%)	5-Yrs Ret (%)	10-Yrs Ret (%)	Since Launch Ret (%)
SBI Magnum Mid Cap Fund- Regular Plan- Growth	29/03/2005	3,443.63	2.03	-7.38	9.03	16.96	23.03	15.28
Baroda Mid Cap Fund- Plan A- Growth Option	04/10/2010	44.74	3.13	-7.52	10.89	7.34	-	-1.43
HDFC MidCap Opportunities Fund- Growth Option	03/06/2007	20,538.81	2.15	-0.99	15.92	20.49	25.71	15.59
ICICI Prudential MidCap Fund- Growth	28/10/2004	1,518.20	2.46	-3.01	13.97	20.03	22.27	16.93

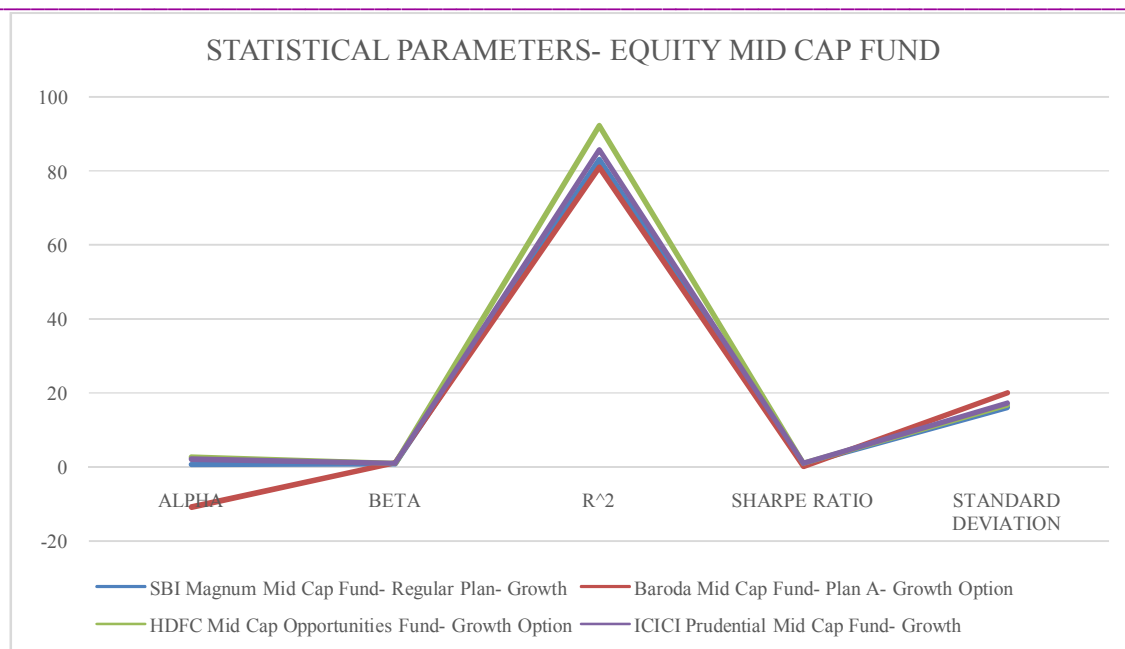


INTERPRETATION-

Equity Mid Cap Funds are those funds where, risk is mid& returns are also mid. Investors can get mid returns. In the public sector, SBI Mid Cap Fund gives the returns of 15.28, as there is an expense ratio of 2.03, where in the private sector, HDFC Small Cap Fund gives the returns of 15.59, as there is an expense ratio of 2.15. SBI Mid Cap Fund & HDFC Mid Cap Fund have huge investment.

STATISTICAL PARAMETERS-

NAME OF THE FUND	ALPHA	BETA	R ²	SHARPE RATIO	STANDARD DEVIATION
SBI Magnum Mid Cap Fund- Regular Plan- Growth	0.61	0.84	83.21	0.8	16.03
Baroda Mid Cap Fund- Plan A- Growth Option	-10.93	1.04	81	0.2	19.97
HDFC MidCap Opportunities Fund- Growth Option	2.57	0.92	92.24	0.95	16.76
ICICI Prudential MidCap Fund- Growth	1.96	0.92	85.78	0.89	17.26



INTERPRETATION-

HDFC Mid Cap Fund has Alpha value of 2.57, ICICI Mid Cap Fund has 1.96, SBI Mid Cap Fund has 0.61 & Baroda Mid Cap Fund has negative Alpha value of -10.93, which indicates that HDFC Mid Cap Fund has performed better than its Beta. Baroda Mid Cap Fund has underperformed.

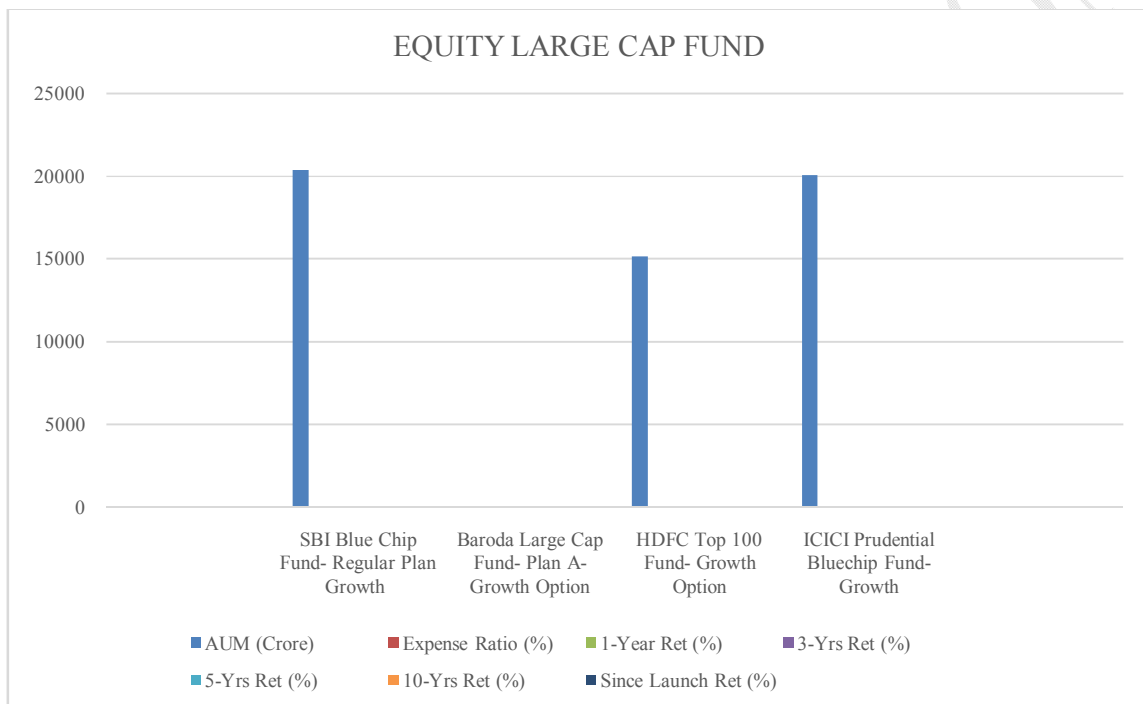
SBI Mid Cap Fund has Beta value of 0.84, HDFC Mid Cap & ICICI Mid Cap have Beta value of 0.92, which indicates that these three schemes have the investment which is less risky than the market. Baroda Mid Cap Fund has Beta value of 1.04, which indicates that the investment is more volatile than market.

Each of the scheme has R-Squared value more than 70, which suggests that each one has more useful Beta figure. HDFC Mid Cap Fund has the higher Sharpe Ratio than others i.e. 95, it indicates that the fund has better historical risk-adjusted performance. Baroda Mid Cap Fund has the greater Standard Deviation than others, which indicates it has the greater fund's volatility.

EQUITY LARGE CAP FUND-

Scheme Name (Data as on 19-03-19)	Launch Date	AUM (Crore)	Expense Ratio (%)	1-Year Ret (%)	3-Yrs Ret (%)	5-Yrs Ret (%)	10-Yrs Ret (%)	Since Launch Ret (%)
SBI Blue Chip Fund-Regular Plan Growth	14/02/2006	20,395.48	2.06	5.32	12.48	15.77	18.36	10.89
Baroda Large Cap Fund-Plan A-	22/06/2010	30.23	2.96	9.98	13.52	13.07	-	4.16

Growth Option								
HDFC Top 100 Fund-Growth Option	11/10/1996	15,162.94	2.08	15.7	18.17	15.32	19.19	19
ICICI Prudential Bluechip Fund-Growth	23/05/2008	20,100.84	2.02	9.23	15.89	14.85	19.61	14.18



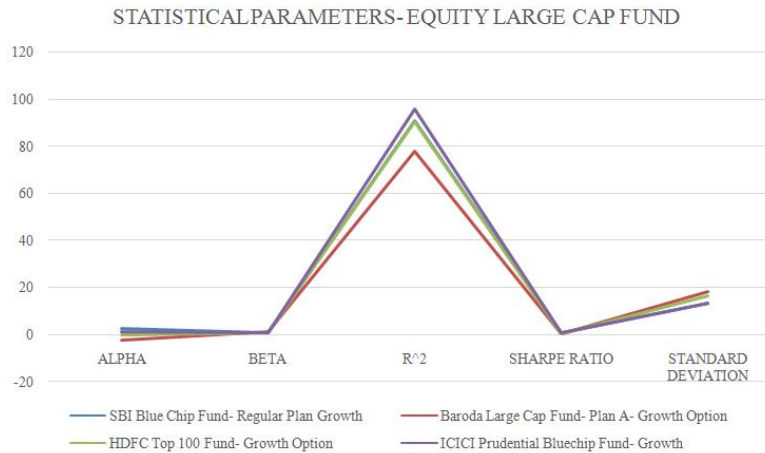
INTERPRETATION-

Equity Large Cap Funds are those funds where, risk is low & returns are also low. Investors can get moderate returns without taking risk. In the public sector, SBI Large Cap Fund gives the returns of 10.89, as there is an expense ratio of 2.06, where in the private sector, HDFC Large Cap Fund gives high returns of 19, as there is an expense ratio of 2.08. But the investment in ICICI Large Cap Fund is more than HDFC Large Cap Fund, as the fund has an expense ratio of 2.02.

STATISTICAL PARAMETERS-

NAME OF THE FUND	ALPHA	BETA	R ²	SHARPE RATIO	STANDARD DEVIATION
SBI Blue Chip Fund- Regular Plan Growth	2.54	0.9	90.92	0.87	13.2
Baroda Large Cap Fund- Plan A- Growth Option	-2.4	1.15	77.94	0.49	18.07
HDFC Top 100 Fund-	0.09	1.13	90.41	0.68	16.54

Growth Option					
ICICI Prudential Bluechip Fund- Growth	1.27	0.93	95.74	0.79	13.24



INTERPRETATION-

SBI Large Cap Fund has positive & higher value of Alpha i.e. 2.54, which indicates that it has better performance. ICICI & HDFC Large Cap Fund have Alpha value 1.27 & 0.09 respectively. Baroda Large Cap Fund has a negative Alpha, which shows it has underperformed.

SBI & ICICI Large Cap Fund have Beta value less than one, which indicates the investment is less risky than the market. Baroda & HDFC Large Cap Fund have Beta value more than one, which shows the investment in these schemes is more volatile than the market.

Every scheme has higher R-Squared value, which is irrelevant to the fund's performance. SBI Large Cap Fund has higher Sharpe Ratio than others, shows the better fund's historical risk-adjusted performance. Baroda Large Cap Fund has higher Standard Deviation of 18.07, which indicates the greater fund's volatility.

FINDINGS

1. SBI Small Cap Fund gives better returns in public sector, where HDFC Small Cap Fund gives better returns in private sector.
2. SBI Mid Cap Fund gives better returns in public sector, where HDFC Mid Cap Fund gives better returns in private sector.
3. SBI Large Cap Fund gives better returns in public sector, where HDFC Large Cap Fund gives better returns in private sector.
4. Statistical Parameters show that SBI Small Cap Fund & HDFC Small Cap Fund have high risk & better performance as well.
5. SBI Mid Cap Fund, HDFC Mid Cap Fund & ICICI Mid Cap Fund have performed well, as well as the investment in these schemes is less risky. Baroda Mid Cap Fund has underperformed & more risk in the market.
6. SBI Large Cap Fund, ICICI Large Cap Fund & HDFC Large Cap Fund have performed better, where Baroda Large Cap Fund has underperformed. SBI Large Cap Fund & ICICI Large Cap Fund have less risk, where HDFC Large Cap Fund & Baroda Large Cap Fund have more risk.

CONCLUSION

In short, there is wide scope in the mutual fund investment. Investors should invest their money in the mutual fund schemes for long term with consistency. If they invest smartly, they can earn more

returns. They can earn the returns more than the inflation rate by investing in the mutual fund. They have to choose the right scheme to earn more. By investing in Small Cap Fund, investors can earn high returns with high risk. While they can earn mid returns with mid risk by investing in Mid Cap Fund. There are moderate returns with low risk in Large Cap Fund. According to my research, SBI Mutual Fund is the best scheme in public sector & HDFC Mutual Fund is the best scheme in private sector.

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