International Research Journal of Management and Commerce
ISSN: (2348-9766)
Impact Factor 7.098 Volume 9, Issue 10 October 2022
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FLEXI-CAP EQUITY MUTUAL FUNDS: A COMPREHENSIVE STUDY OF PERFORMANCE AND RISK DYNAMICS

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ABSTRACT

The present study examines the performance and risk dynamics of flexi cap mutual funds Direct Plans-Growth Option of 20 funds. These funds are managed by several well-known Asset Management Companies in India. This study compares the performance of the funds with its peer groups, Category Average, Benchmark- Nifty 500 TRI. Standard deviation, Beta, Jensen's Alpha, and Sharpe Ratios were used to assess volatility and risk-adjusted returns. Parag Parikh Flexi Cap Fund popularly known as PPFC Fund emerged as the best performers, offering high risk-adjusted returns, low volatility, and excellent excess returns over the benchmark. Evaluation of all metrics indicates that Taurus Flexi cap fund is the least performing, exhibiting high risk and poor return.

Key-words: Mutual Funds, Flexi-Cap Funds, Direct Plans, Category Return, benchmark Nifty 500 TRI, Volatility, Risk adjusted returns.

INTRODUCTION

Flexi cap funds are diversified open-ended schemes of equity mutual funds. These equity funds invest their assets into large companies, mid cap or small cap companies. The fund managers can invest in the best performing stocks within various sector companies without worrying about the size of the companies. The fund manager has flexibility to switch their portfolio across Large, Mid and Small Size companies according to the changing economy and market conditions. So, investment in these mutual funds provide wider market coverage to investors by investing in a single fund. It reduces the necessity to make separate investments in small, mid, and large cap funds.

Flexi-cap funds strike a balance between risk and volatility in a single portfolio while providing investors with growth and value by investing across market capitalization sectors.[1] These funds are most suitable for the investors seeking diversification and long-term capital growth through investments in equities and other related assets.

These funds invest in excellent investment opportunities to perform better than its benchmark i.e. Nifty 500 TRI. The ideal time horizon of investment in these funds is 3 plus years.

RESEARCH GAP & JUSTIFICATION OF THE STUDY

This part explores the research papers published on flexi cap mutual funds in India. Based on review of resources, researchers could find the under mentioned research paper concerned to this topic.

Dr. Sunil M. Adhav (2020): The researcher conducted a 'Study of Risk of Selected Flexi Cap Equity Mutual Funds'. It examined 10 Flexi Cap Equity Mutual Fund schemes. The average annual returns were used to evaluate funds' performance and standard deviation to evaluate the fund's risk. It reported the Edelweiss Flexi Cap Fund as high risky fund and UTI flexi cap fund as the low-risk fund.[2]

The literature review revealed that there is huge space to contribute to the research topic. The current study evaluates 20 Flexi Cap funds out of universe of 29 mutual funds and cover only those funds which have shown performance of 5 years and above. Hence, 9 funds with less than 5-years performance were not covered in the study.

OBJECTIVES OF THE STUDY

The objectives of the study are mentioned as under:

1. To analyse the Assets under Management and expense ratio of Flexi Cap Equity Mutual Funds-Direct Plan-Growth Option.
2. To assess and compare the Performance of chosen Flexi Cap Equity Mutual Funds-Direct Plan-Growth Option with peer group, its Category Average and its Benchmark Index i.e. Nifty 500 TRI.
3. To assess the volatility as well as Risk-adjusted returns of Flexi Cap Equity Mutual Funds-Direct Plan-Growth Option in comparison to its category average.
4. To find the top and low performing Flexi Cap Equity Mutual Funds-Direct Plan-Growth Option.

RESEARCH METHODOLOGY

The universe of the study is 29 Flexi Cap Equity Mutual funds issued and managed by reputed Asset Management Companies in India. Out of this, the study selected 20 Flexi Cap Mutual funds on the basis of criteria of funds which have fund performance of 5 years and above. All the selected funds are Flexi Cap Equity mutual funds with Direct Plan-Growth option. The study is based on secondary data analysis. The data on the flexi-cap funds was compiled on 12th Nov. 2021 from moneycontrol.com, valureresearchonline.com, and fact sheets of the selected mutual funds in India.

The study evaluated the fund performance on the basis of 1- year, 2- year, 3-year, 5-year returns (% age). It further evaluates volatility among funds through Standard Deviation. The study also examines the risk adjusted returns among funds with various risk ratios like Beta ratio, Jensen's Alpha and Sharpe Ratio.

Standard Deviation

Standard deviation is a statistical tool to measure underlying volatility or risk of a financial asset. The SD is computed by [3]:

$$\sigma = \sqrt{\frac{\Sigma(xi - \bar{x})^2}{n-1}}$$

Where,

x_i = A fund's returns across a specific period

$\bar{x}$ = Average return value of the data set

n = Total number of data points

Beta and Alpha [4]

Beta and Alpha are used to measure an asset's risk-adjusted returns of the fund.

$$\beta = \frac{R_p - R_f}{R_m - R_f}$$

Where:

β = Portfolio Beta

R_p = Mutual Fund's Return

R_f = Risk-Free Rate

R_m = Expected Market Return

Jensen's alpha is computed by [5]:

Jensen's Alpha = Rp – [Rf + β (Rm – Rf)]

Where:

Rp = Portfolio Return

Rf = Risk-Free Rate

Rm = Expected Market Return

β = Portfolio Beta

Sharpe Ratio [6]

The Sharpe ratio measures risk-adjusted relative returns. In its simplest form,

$$Sharpe\ Ratio = \frac{R_p - R_f}{\sigma_p}$$

where:

Rp = Return of portfolio

Rf = Risk-free rate

σ_p = Standard deviation of the portfolio's excess return

ANALYSIS & INTERPRETATION:

Analysis of Assets Under Management: Table 1 shows the Assets Under Management of Flexi Cap Funds of the selected Flexi Cap Funds-Direct Plan-Growth managed by various Asset Management Companies. Its analysis reveals that the AUM falls between Rs 189.15 (Cr) to Rs 38520.21(Cr). Analysis reveals that the lowest AUM Rs 189.15 (Cr) is with JM Flexi Cap fund, and the highest AUM Rs 38520 (Cr) is with Kotak Flexi Cap Fund.

TABLE 1: ASSETS UNDER MANAGEMENT & EXPENSE RATIOS OF FLEXI CAP FUNDS

Scheme Name-Direct Plan-Growth	AUM (Cr)	Expense Ratio (%)
ABSL Flexi Cap Fund	16,172.68	1.83
Canara Robeco Flexi Cap Fund	6,143.48	0.55
DSP Flexi Cap Fund	7,344.78	0.75
Edelweiss Flexi Cap Fund	884.60	0.52
Franklin India Flexi Cap Fund	10,407.99	1.13
HDFC Flexi Cap Fund	27,105.00	1.72
HSBC Flexi Cap Fund	397.59	1.38
IDBI Flexi Cap Fund	384.54	1.17
IDFC Flexi Cap Fund	6,023.41	1.22

JM Flexi Cap Fund	189.15	1.73
Kotak Flexi Cap Fund	38,520.81	1.60
L&T Flexi Cap Fund	3,013.19	1.31
LIC MF Flexi Cap Fund	427.91	1.67
Motilal Oswal Flexi Cap Fund	11,505.41	0.89
PPFC Fund	17,219.55	0.82
PGIM India Flexi Cap Fund	2,705.57	0.19
SBI Flexi Cap Fund	15,462.18	0.86
Taurus Flexi Cap Fund	269.33	2.58
Union Flexi Cap Fund	816.11	1.66
UTI Flexi Cap Fund	24,212.44	1.02
	Category Average	**0.97**

Source: Compiled from moneycontrol.com

Analysis of Expense Ratio: Table 1 depicts Expense ratio (%) of Flexi Cap Funds-Direct Plan as well expense ratio (%) of 'Category Average' of the selected Flexi Cap Funds-Direct Plan-Growth. AMC charges an annual fee to manage fund investments, which is known as the expense ratio. The expense ratio eventually affects the returns of the mutual fund investor. Expense ratio is lower for Direct Plans of mutual funds in comparison to Regular Plans. Its analysis shows that expense ratio ranges between 0.19 % to 2.58%. It is observed that expense ratio for 7 funds is less than the category average's expense ratio. The lowest expense ratio is charged by PGIM India Flexi Cap Fund (0.19%), and the highest expense ratio is charged by Taurus Flexi Cap Fund (2.58%). The expense ratio of similar funds 'Category Average' is 0.97%.

Analysis of Performance of Flexi Cap Funds-Direct Plan-Growth (% Return)- Peer Group, Category Average & Benchmark Comparison

TABLE 2: PERFORMANCE OF FLEXI CAP FUNDS - PEER GROUP, CATEGORY AVERAGE & BENCHMARK INDEX

Scheme Name-Direct Plan -Growth Option	**Returns (%)**				
	1Y	**2Y**	**3Y**	**5Y**	**Since Inception**
PPFC Fund	51.53%	41.36%	31.36%	24.02%	22.08%
PGIM India Flexi Cap Fund	51.12%	43.64%	31.89%	23.44%	17.67%

UTI Flexi Cap Fund	43.14%	35.11%	27.11%	21.58%	18.01%
Canara Robeco Flexi Cap Fund	38.86%	29.60%	24.14%	20.92%	16.18%
DSP Flexi Cap Fund	39.47%	28.12%	25.16%	19.50%	16.78%
Edelweiss Flexi Cap Fund	41.01%	26.66%	21.28%	19.42%	14.39%
Union Flexi Cap Fund	44.19%	30.54%	24.11%	18.41%	14.46%
JM Flexi Cap Fund	39.08%	23.97%	21.70%	18.20%	17.12%
IDBI Flexi Cap Fund	41.78%	28.53%	21.31%	17.63%	19.28%
SBI Flexi Cap Fund	36.51%	24.33%	20.50%	17.22%	17.91%
Kotak Flexi Cap Fund	29.35%	20.50%	18.39%	16.79%	17.59%
Franklin India Flexi Cap Fund	45.94%	29.85%	21.36%	16.69%	17.21%
ABSL Flexi Cap Fund	35.22%	24.90%	19.82%	16.55%	18.16%
HSBC Flexi Cap Fund	39.98%	26.76%	20.30%	15.94%	16.06%
HDFC Flexi Cap Fund	43.07%	23.38%	18.25%	15.92%	15.29%
L&T Flexi Cap Fund	32.73%	21.90%	16.55%	14.69%	14.66%
IDFC Flexi Cap Fund	35.99%	21.76%	17.09%	14.49%	15.51%
Motilal Oswal Flexi Cap Fund	21.28%	15.80%	13.09%	13.14%	18.86%
LIC MF Flexi Cap Fund	26.69%	17.16%	16.41%	12.18%	11.34%
Taurus Flexi Cap Fund	28.77%	16.10%	11.93%	10.62%	10.30%
Category Average (%)	**37.66%**	**26.18%**	**20.98%**	**17.38%**	**17.54%**
Benchmark: Nifty 500 TRI	**37.45%**	**26.94%**	**21.32%**	**17.71%**	

Source: Compiled from moneycontrol.com

Analysis of Peer Group Performance of the Flexi Cap Funds:

Since Inception returns: Analysis of table 2 shows that Since Inception returns (% age) varies between 10.30% to 22.08%. Since inception returns results shows that PPFC Fund is the best performing fund (22.08%), and Taurus Flexi Cap Fund is the least performing fund (10.30%).

On the basis of 5 yr data: The % age returns for this period varies between 10.62 % to 24.02%. PPFC Fund stands at the top with 24.02 % return. Taurus Flexi Cap Fund has reported lowest return of 10.62% in this category also.

On the basis of 3 yr data: The % age returns for this period varies between 11.93 % to 31.89%. PGIM India Flexi Cap Fund (31.89%) and PPFC Fund (31.36%) are top two funds, and Taurus Flexi Cap Fund is the least performing fund with 11.93% return.

On the basis of 2 yr data: The % age returns for this period varies between 15.80% to 43.64. PGIM India Flexi Cap Fund (43.64%) and PPFC Fund (41.36%) are the top two funds and Motilal Oswal Flexi Cap Fund is the least performing fund with 15.80% return.

On the basis of 1 yr data: The % age returns for this period varies between 21.28% to 51.53%. The top performing funds based on analysis of 1 year return are PPFC Fund (51.53%) and PGIM India Flexi Cap Fund (51.12%), these are ranked as number 1 and 2 funds here, with Motilal Oswal Flexi Cap Fund as the least performing fund with 21.28% return.

On the basis of overall performance of returns, PPFC Fund and PGIM Flexi Cap Fund emerged as the top two performing funds based on the peer group comparison.

Analysis of Performance of the Flexi Cap Funds Vis-à-vis Category Average:

The analysis is done to evaluate the selected funds' performance in comparison to the category or industry average. This evaluation is crucial in evaluating whether the funds' are underperforming or outperforming its category average.

Table 2 shows that Since Inception returns (% age) category return is 17.54%. The analysis shows that out of 20 funds, 8 funds have outperformed the category return i.e. these funds have reported returns higher than 17.54%. The top three funds Flexi cap fund based on Since Inception return are PPFC Fund, IDBI Fund and Motilal Oswal Fund. Based on overall analysis it can be stated that three funds i.e. Parag Parikh Flexi Cap Fund (popularly known as PPFC Fund), PGIM India Flexi Cap Fund, and UTI Flexi Cap Fund, have consistently outperformed the industry average returns on 1 year, 2 year, 3 year, 5 year and since inception returns.

Analysis of Performance of Flexi Cap Funds-Direct Plan-Growth (% Return) Vis-à-vis Benchmark Index: Nifty 500 TRI

On the basis of 5-yr data: Table 3 shows the performance of Flexi Cap Funds-Direct Plan-Growth (% Return) as well as Benchmark Index: Nifty 500 TRI (% Return). The benchmark return based on 5- year data is 17.71%. The analysis shows that out of 20 funds, 8 funds have outperformed the Nifty 500 TRI i.e. these funds have reported returns higher than 17.71%. PPFC Fund and PGIM India Flexi Cap Fund emerged as the top two funds outperforming its benchmark index.

On the basis of 3-yr data: The benchmark return based on 3- year data is 21.32%. The analysis shows that out of 20 funds, 8 funds have outperformed the Nifty 500 TRI i.e. these funds have reported returns higher than 21.32%. PGIM India Flexi Cap Fund, PPFC Fund are the top two funds outperforming its benchmark index based on 3-year returns.

On the basis of 2-yr data: The benchmark return based on 2- year data is 26.94%. The analysis shows that out of 20 funds, 8 funds have outperformed the Nifty 500 TRI i.e. these funds have reported returns higher than 26.94%. PGIM India Flexi Cap Fund and PPFC Fund are again the top performers.

On the basis of 1-yr data: The benchmark return based on 1- year data is 37.45%. The analysis shows that out of 20 funds, 12 funds have outperformed the Nifty 500 TRI i.e. these funds have reported returns higher than 37.45%. PPFC Fund and PGIM India Flexi Cap Fund emerged as top performers based on 1 year performance.

On overall basis, six funds i.e. PPFC Fund, PGIM India Flexi Cap Fund, UTI Flexi Cap Fund, Canara Robeco Flexi Cap Fund, DSP Flexi Cap Fund, Union Flexi Cap Fund and JM Flexi Cap Fund have consistently beaten their benchmark index-Nifty 500 TRI on short-term to long-term evaluations.

Volatility Analysis (Standard Deviation) of Flexi Cap Funds in comparison to the Category Average

This part of the study analyses the volatility and Risk of the selected Flexi Cap Funds. The tools used to measure the volatility are Standard Deviation and Beta.

Standard deviation is an important metric to examine the degree of volatility in the mutual fund’s performance. The more the standard deviation, the greater the volatility and lower the standard deviation of mutual funds, the lower will be volatility. The lower standard deviation implies relatively more stable returns in comparison to other funds. Thus, a fund with lower value of standard deviation is considered safer as compared to the fund with higher value of the standard deviation.

Source: Compiled from moneycontrol.com

TABLE 3: STANDARD DEVIATION, BETA, JENSEN'S ALPHA & SHARPE RATIOS OF FLEXI-CAP MUTUAL FUNDS				
Scheme Name	**Standard Deviation**	**Beta**	**Jensen's Alpha**	**Sharpe Ratio**
ABSL Flexi Cap Fund	17.23	0.99	0.21	0.89
Canara Robeco Flexi Cap Fund	15.56	0.89	4.43	1.19
DSP Flexi Cap Fund	16.31	0.92	5.15	1.20
Edelweiss Flexi Cap Fund	16.21	0.93	1.52	0.99
Franklin India Flexi Cap Fund	17.19	0.97	2.41	0.96
HDFC Flexi Cap Fund	18.67	1.03	0.46	0.76
HSBC Flexi Cap Fund	17.59	1.00	-0.15	0.88
IDBI Flexi Cap Fund	14.95	0.84	3.08	1.08
IDFC Flexi Cap Fund	15.35	0.87	-0.97	0.82
JM Flexi Cap Fund	16.98	0.94	2.49	1.00
Kotak Flexi Cap Fund	16.68	0.94	-1.16	0.83
L&T Flexi Cap Fund	15.47	0.88	-0.98	0.78
LIC MF Flexi Cap Fund	15.08	0.79	0.15	0.80
Motilal Oswal Flexi Cap Fund	17.12	0.96	-3.94	0.55
PPFC Fund	12.80	0.59	14.77	1.87
PGIM India Flexi Cap Fund	16.66	0.93	10.12	1.48
SBI Flexi Cap Fund	15.90	0.90	1.48	0.99
Taurus Flexi Cap Fund	16.37	0.94	-5.14	0.50
Union Flexi Cap Fund	16.06	0.92	4.05	1.16
UTI Flexi Cap Fund	15.55	0.86	9.02	1.39
Category Average	**15.45**	**0.85**	**1.82**	**1.01**

Table 3 depicts the values of Standard Deviations, Beta, Alpha, and Sharpe Ratios as well their respective category averages. Analysis depicts that only 4 flexi Cap funds viz. Parag Parikh (12.80), IDBI Fund (14.95) LIC MF (15.08) and IDFC Fund (15.35) have lower standard deviations as compared to its Category Average of 15.45. These four funds are relatively less volatile and more stable as compared to other 16 flexi cap funds that have higher standard deviation than category average of 15.45. This value of standard deviation is the highest i.e. 18.67 for the HDFC Flexi Cap Fund. Based on analysis of standard deviation it is observed that

Parag Parikh Flexi Cap (12.80) is the least volatile and most stable fund in the category while HDFC Flexi Cap Fund is the most volatile and least stable fund in the category.

However, the standard deviation gives better evaluation results if other statistical measures are too used with it for the overall understanding of the entire risk and performance of the funds.

Risk Analysis (Beta) of Flexi Cap Funds

Best is another critical measure to evaluate comparative risk of mutual fund against its standardized value. It presents an outlook of the risk profile of mutual fund and explains whether the fund have high or low risk as compared to its standardized value.

The benchmark value of beta is one. So, the fund’s beta value is compared with one for the purpose of its evaluation. If the beta of the fund is higher than 1, it implies that the fund is relatively more risker compared to its benchmark. [7] Higher Beta funds can offer higher returns when markets rise but come with increased risk. On the other hand, lower Beta funds likely to be fall lesser during market downturns. [8]

Table 3 shows the Beta value of all the selected mutual funds. The analysis of table reveals that there are merely 3 funds with beta value lesser than 1 as well its category average. These three funds are PPFC Fund (0.59), LIC MF Flexi Cap Fund (0.79), and IDBI Flexi Cap Fund (0.84) have beta value lower than 1 as well as lesser than its category average (0.85). So, these funds are least risk in the category. Whereas beta value of one fund i.e. HSBC Flexi Cap Fund is 1 which is considered to be in line with its benchmark value of 1. This fund can be considered to mirror its benchmark performance as well in terms of the risk. HDFC India Flexi Cap Fund (1.03) have marginally exceeded the benchmark of 1. PPFC Fund seems to be low correlated with the market. It offers more stability in the volatile market. Being less volatile in nature, this fund is good for risk-averse investors. HSBC Flexi Cap Fund is expected to be in line with its benchmark and give returns like the market. HDFC Flexi Cap Fund with a little bit of risk can slightly outperform the market in times of upswing but will fall more than the market in times of downtrend.

Alpha Analysis of Flexi Cap Funds

When comparing a fund's performance to its benchmark, alpha is one of the most crucial factors to take into account. All mutual fund categories strive to provide alpha for their investors. Alpha (α) is a term used in portfolio management to describe the incremental returns from an investment portfolio, usually made up of stocks, above the specific benchmark value. CAPM is the benchmark return used under Jensen's Measure. The excess returns, or alpha, might have a value of zero, positive, or negative. While negative alpha denotes underperformance, positive alpha signifies outperformance, and zero alpha means neutral performance (i.e., tracking benchmark). [9]

Table 3 exhibits the Jensen's Alpha values of all the chosen flexi-cap funds. This ratio reveals the risk adjusted performance of the funds against its benchmark. The analysis of table shows 1.82 is the Alpha value of category average. This value is taken as benchmark for the peer group comparison. The study viewed PPFC Fund, PGIM India Flexi Cap Fund and UTI Flexi Cap Fund are top 3 funds which have significantly outperformed the category average delivering high risk-adjusted returns whereas Kotak Flexi Cap Fund, Motilal Oswal Flexi Cap Fund and Taurus Flexi Cap Fund are bottom three funds with negative Alphas which have shown substantial underperformance. In general, the category displays a mix range of risk-adjusted returns.

Analysis of Sharpe Ratios

A mutual fund's Sharpe Ratio shows its possible risk-adjusted returns. It is another important factor in assessing the risk adjusted return of an investment's performance. An investment with a higher Sharpe Ratio will yield better returns, but the risk will also be higher. [10]

Analysis of table 3 highlights that there are 8 funds with Sharpe Ratio of more than one as well higher than its category average. PPFC Fund (1.87), PGIM Flexi Cap Fund (1.48), UTI Flexi Cap Fund (1.39) emerged as the top three funds with high risk adjusted returns relative to their risk levels. HDFC Flexi Cap Fund (0.76), Motilal Oswal Flexi Cap Fund (0.55), Taurus Flexi Cap Fund (0.50) are the **'**least performers' have relatively lower Sharpe Ratios indicating poor risk-adjusted performance, with low returns relative to the risk taken. These funds may not be perfect for risk-averse investors.

CONCLUSION & SUGGESTIONS:

The study analysed the performance of 20 Flexi Cap Funds-Direct Plan-Growth Option out of universe of 29 funds in the category. It examined their AUM, Expense Ratios, Peer group comparison, Benchmark index comparison-Nifty 500 TRI. It further examined Standard Deviation, Beta, and various ratios i.e. Sharpe Ratio, Jensen's Alpha to study volatility and risk adjusted return of the chosen funds. Parag Parikh Flexi Cap Fund (PPFC Fund), PGIM India Flexi Cap Fund, and DSP Flexi Cap Fund emerged as the top three performers. These funds have high risk-adjusted returns, low volatility, and outperformed the benchmark returns. These are most suitable for the investors considering investing in funds with consistent returns and least risk. Parag Parikh Flexi Cap Fund (PPFC Fund) stands out as the *'best-performing fund'* with a highest Alpha, the uppermost Sharpe Ratio, and minimal Standard Deviation and Beta. Its robust performance exhibit strong returns with least risk. However, this fund has marginally higher expense ratio than other two funds. Canara Robeco Flexi Cap Fund, Union Flexi Cap Fund, and IDBI Flexi Cap Fund emerged as *'moderately performing funds'* with balanced risk-return profiles. These funds are appropriate for investors seeking a balanced risk-return approach. Taurus FIexi cap Fund appears to be the *'least-performing fund'* based on assessment of all metrics. It exhibits high risk, low returns, a negative Alpha, the lowest Sharpe Ratio, and higher volatility. It seems to be unsuitable for investment due to its weak performance and high risk. To conclude, conservative investors should select funds with low standard deviation, low beta and low expense ratios, whereas moderate and aggressive investors may select funds with higher Beta and Sharpe Ratios which are likely to offer higher return potential.

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