

“IS SELECTED LARGE CAP GROWTH FUND PERFORMING WELL” - A STUDY ON INDIAN STOCK MARKET

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ABSTRACT

Mutual fund is an investment avenue which enables small investors to satisfy their appetite on market securities by allowing fund managers to decide for them. India has 44 mutual fund companies offering a choice over 11,000 primary schemes. Academic research conducted in the past has shown that the mutual funds have been performing in line to the benchmark standards. There has been systematic outperformance only by recent top performers. The performance of poor performing mutual fund companies has always been suggestively worse. In this paper, the performances of growth plan schemes are evaluated for the selected 10 mutual fund companies. Evaluation is done for 60 months from April 2014 to Mar 2019. Based on benchmark index and tools like standard deviation, beta is calculated along with risk adjusted techniques such as Sharpe, Treynor and Jensen ratios. The study is an addition to the existing literature and may help in improving the quality of informed decisions taken by investors with special reference to growth options provided by mutual fund companies. The study records that the growth plans provided by the top mutual fund companies (based on AAUM), did not outperform the benchmark index during the study period. Though the mutual fund schemes show less chances of procuring stable returns compared to the risk free return investments, it is also representing that long run investments are to be made to see higher returns. The large cap funds represents investments made in stable companies. Risk-averse investors who intent to invest on long run should stay invested for a minimum period of 5 years or more. The fund may not show positive return on immediate basis.

Keywords: Mutual Fund, Large Cap, Stock Market, Growth Plan.

INTRODUCTION

Mutual fund companies are investment mobilizers of small investors' funds to invest in various types of securities ranging from ownership investment to lending investments. Indian mutual fund companies diversify their risk by investments made in equity, futures, options and debt including short and long term. While SEBI is seeking feedback and analysing the proposed framework on permitting Mutual Fund companies to invest in commodity derivatives, our Mutual fund market has grown over a period of time in terms of the annual Asset Under Management. Investor education and protection fund authority, Ministry of Corporate Affairs, Government of India explains that Mutual Fund industry's' growth can be phased into four where under first phase (1963-1987) the total AUM amounted to Rs. 6,700 crores. UTI was the first ever company to introduce the unit 64 scheme which was the only option available for Indian mutual fund investors when India embarked itself as country having mutual fund industry by 1963 During the second phase (1987-1993) when the

industry made an entry to public sector funds the AUM was amounting to Rs. 47,004 crores. The entry to private sector funds during the third phase (1993-2003) and with more comprehensive Mutual Fund Regulation in 1996, the AUM of the industry amounted to Rs. 1,21,805 crores (2003). During that period, 33 mutual fund companies were operating in India with a mix of Indian and foreign mutual funds, merged and acquired institutions. UTI the pioneers in the industry branched to two – (i) Specified Undertaking of Unit Trust of India – governed by Government of India with AUM of Rs. 29,835 crores (ii) The UTI fund comprising of sponsorship of SBI, PNB, BOB and LIC, regulated by Mutual fund Regulation, with AUM of Rs. 76,000 crores. The growth and consolidation of the current phase in phenomenally. The following Table 1 presents the growth on mutual fund companies in terms of total Asset under management.

Phase	Time	AUM (in crores)
Phase 1	Mar-1965	25
	Mar-1967	4564
Phase 2	Mar-1993	47000
	Jan-2003	121805
Phase 3	Feb-2003	87190
	Mar-2003	79464
Phase 4	Mar-2004	139616
	Mar-2005	149554
	Mar-2006	231862
	Mar-2007	326388
	Mar-2008	505152
	Mar-2009	417300
	Mar-2010	613979
	Mar-2011	592250
	Mar-2012	587217
	Mar-2013	701443
	Mar-2014	825240
Mar-2015	1082757	

Source: AMFI

Introduction to Growth Plan Schemes

The investment made in the securities fetches a return called dividend. Various Mutual funds companies' provide growth option with restriction to the investors in terms of withdrawal of fund profits, but allows them to reinvest in the fund. It is noteworthy to understand the power of compounding in terms of mutual funds which offers a reinvestment option to the investors. The mutual fund companies provide the investors a liberty to choose between dividend option and growth option. Dividend plans pay-out dividends on regular basis and such pay-out affects the Net Asset Value. The dividends are often underutilized and the wealth of the investor diminishes. The growth options of mutual fund schemes are auto-compounders and aims at wealth creation.

There are various investment avenues available for investors across India, with differential returns based on the risk. Indian financial system allows investors to choose from safest investment avenues featuring less risk, ranges from bank deposits to post office investment schemes. Shares market allows the investors to choose stocks based considering the fundamental, technical analysis and ability to handle risk. Debt securities are investments that generate interest income to the investors who chooses to invest based on the historical

performances and other factors of the company. But, Mutual funds are advanced, lucrative and innovative tool that caters the appetite of investors based on individual risk taking ability, needs and objective where the fund manager designs the portfolio with due consideration to all the fundamental, technical aspects by diversifying the allocation of collected funds. 10 mutual fund companies are chosen based on the total AUM. The regular “*Growth Plan*” and growth option schemes of all the 10 companies are chosen for analysing the performance based on risk and return.

Scope of the Study

The complexity of the market situation in terms of macro and micro economy, the deficiency of investor’s time restricts the individual investor to take informed decisions. This study would help investors to understand the risk and return involved in investing in regular “*Growth Plan*” with growth option. The study specifically aims to understand growth schemes of the selected companies.

Review of Literature

A study conducted by Bauer et al. (2005) analyses the International mutual funds. The study analysed the mutual fund performance based on market fluctuation. It also considered correlation between the fund manager’s selectivity and the performance of the market. It was concluded that the selection pattern adopted by the fund managers and the market performance are negatively correlated in line to the local European capital. The study also showed that the international mutual fund schemes performed better than the domestic funds. Open ended Pakistani mutual fund schemes were analysed by Talat Afza (2009) extracting the significant variables impacting the performance. It was found that lagged return and liquidity created a major impact on the fund performance. The study considered variables other than market fluctuation such as fund age and liquidity.

Busse et al. (2016) analysed the fund performance based on trading regularity. The study states that the larger the trade, larger the dip in return paving way to lose out the money in transaction cost. An interesting study conducted by John et al. (2006) collected samples of various large cap mutual funds and clusters were formed to evaluate if one growth cluster persists. The morning star 500 funds were taken into consideration and clusters were formed based on three homogeneous styles (one growth and two values) and were later identified that there were certain misclassification. These cluster styles were clearly projecting differentiation on the basis of various risk quotients and Jensen and Sharpe risk return performance measures.

Robiyanto et al. (2019) studied the performance of Sharia mutual funds of Indonesia. In India there are only three mutual funds which comply with Sharia compliance requirement naming Tata Ethical, Taurus Ethical and Reliance ETF Shariah BeES. The study evaluates the performance with benchmark returns. Persistence in the performance of mutual fund was identified by various authors. The research conducted by Hendricks et al, (1993) documented the evidence of mutual fund performance for shorter period and such performance was categorised as “*hot hand*” attribute. The study also states that the mutual funds do not outperform the indices or respective benchmarks systematically every period at which the return is assessed. Various authors including Elton (1993) has recorded evidences in their researches which states that the mutual fund performances are predictable if the investments are made for longer duration. Study conducted by Grinblatt et al. (1995) states that the performance of mutual funds are comparatively better before the transaction and fees charged by mutual fund companies.

Jenson (1969) states that, mutual fund performances will not be consistently the same. The research recorded the out performances of the mutual fund in the past will not assure that it will continue to be the same. A study conducted by Kothari (2001), adopted simulation method to assess the performance of the mutual fund. The study adopted time series method and found that the previous research conducted on mutual fund performances were not relatable to the results of the current study.

Lee & Venkatesan (2020) conducted a study on mutual fund performance. The perspective of the study was, the mutual funds which were traded more had the chances of sourcing a higher return. The study reported that the momentum effect does not reflect the performance of a fund. It also recorded that the skills of the fund manager have shorter persistence. The traditional methods of performance measures show a positive relationship in the fund performance. Indro et al. (2019) studied the impact of fund size (AUM) and the performance of the mutual fund. The results of the study recorded that the growth funds performed less whereas the value and growth fund gained a higher return. It also presents that the performance of mutual fund will be optimal if the fund reaches a certain size which enables to cut the cost of transacting the mutual fund. The Italian researcher Basso & Funari (2017) studied the role of fund size in the performance of mutual funds. The studies observed the mutual fund performance based on DEA model. Different statistical tools were applied to find that the European mutual fund increase or decrease returns.

Objectives of the Study

1. To evaluate the performance of selected regular Growth Fund, growth option schemes in India.
2. To examine the risk and return based on volatility of market of the selected growth option fund.
3. To arrive at the connection between NAV and Index return.
4. To ascertain the risk adjusted performance of selected growth schemes by relating the measures of Sharpe, Treynor and Jensen.

Research Methodology

The research is descriptive study which also considers analytical aspects of mutual fund performance based on various tools. The research compares different Growth Plans offered by selected ten mutual fund companies. The mutual fund companies were selected on the basis of the average asset under management (AAUM) in the category of large cap growth fund. The study considers secondary data collected from the official website of Association of Mutual Funds in India (AMFI) and National Stock Exchange and Bombay Stock Exchange. Total of 87 large cap – growth fund schemes of various mutual fund companies were taken into account to choose the top 10 schemes accounting for major average AUM for the quarter January – March 2019. The study sample consists of 10 mutual fund companies' Growth Plan scheme for five accounting period dated 1-04-2014 to 30-03-2019. For market portfolio comparison NSE Nifty data comprising of 1270 observation for the corresponding year has been taken into account. Government security return rate of 5.94% was considered as a surrogate for risk free rate of return comparison., Return, beta, standard deviation, correlation and risk adjusted performance measures namely Treynor & Jensen measures were arrived at, to measure the performances of the growth funds.

The following Table 2 shows the average asset under management as on 31-3-2019 of the companies that were selected for the purpose of analysis.

Table 2 AVERAGE ASSET UNDER MANAGEMENT OF LARGE CAP SCHEME		
Name of the Large cap fund	Scheme wise (AAUM) for the quarter of January -	Mutual Fund

	March 2019 (Rs in Lakhs)	
Reliance Large Cap Fund- Growth Plan - Growth Option	6,81,327.76	Reliance Nippon Life Asset Management Limited
Reliance Large Cap Fund - Direct Plan Growth Plan - Growth Option	1,39,516.35	Reliance Nippon Life Asset Management Limited
BNP PARIBAS LARGE CAP Fund-Growth Option	60,242.86	BNP Paribas Asset Management India Private Limited
Tata Large Cap Fund Regular Plan – Growth	50,347.02	Tata Asset Management Limited
HSBC Large Cap Equity Fund – Growth	32,685.40	HSBC Asset Management (India) Private Ltd.
L&T India Large Cap Fund - Regular Plan – Growth	31,316.10	L&T Investment Management Limited
IDFC Large Cap Fund-Regular Plan-Growth	30,372.03	IDFC Asset Management Company Limited
DHFL Pramerica Large Cap Fund – Growth	23,991.57	DHFL Pramerica Asset Managers Private Limited
Union Largecap Fund - Regular Plan - Growth Option	23,567.80	Union Asset Management Company Private Limited
LIC MF Large Cap Fund-Regular Plan-Growth	20,009.57	LIC Mutual Fund Asset Management Limited

Top 10 mutual fund selected based on AUM, Source - AMFI

During the course of data collection, it was found that though the growth funds such as Reliance Large Cap Fund- Growth Plan -Growth Option, DHFL Pramerica Large Cap Fund – Growth and Union Largecap Fund - Regular Plan - Growth Option have top Average Asset Under Management, they fund were either discontinued or did not exist all across the study period. Therefore, the study had narrowed down to measure the performance of the seven selected mutual fund.

Data Analysis

Table 3, Table 4, Table 5, Table 6 and Table 7 shows the performance of selected mutual fund companies growth funds for the year 2014-15, 2015-16, 2016-17, 2017-18, 2018-19 respectively. The calculation includes a comparison of Total return of the selected growth funds. The outperformances of each growth fund compared to Nifty returns are arrived at for further study of the fund performance. The standard deviation on daily return and annualized return has been arrived at to understand the spread of the returns compared to an average return. Government security return has been taken as the base to arrive at the Sharpe, Treynor & Jensen ratio. Sharpe ratio measures the performance of the mutual fund's return with a given risk. The representation of Treynor Ratio is such that it measures the excess of return on investing in mutual fund of that which could have been earned on an investment which has no systematic risk vested to it. Jensen's ratio measures the performance of mutual fund in terms of fund manager's skill in choosing stocks for the vested fund. It can also be understood as measure that brings out the excess return made by the fund comparing to a return generated through a Capital Asset Pricing Model (CAPM).

Interpretation of Data Analysis

Table 3 is the summary of data analysis which enables to quantify the performance of the growth schemes of the mutual fund for the year 2014-2015. Column 1 depicts the measures and Column 2 depicts the period of measurement. Column 3 represents the Nifty measurement and the following columns represent the performance of the respective growth plan mentioned. Nifty recorded a positive return for Q1 (0.1325), Q2 (0.0407), Q3 (0.0548) and Q4 (0.0250). All the selected mutual fund recorded a positive return except for HSBC Large Cap Equity Fund – Growth, which recorded a negative return in Q2 (-0.0073) and further shows a positive return for the quarters Q3 (0.0620) and Q4 (0.0167) during 2014-15.

The outperformance measure of the respective fund in comparison to Nifty indicated that all the selected growth funds except BNP PARIBAS LARGE CAP Fund-Growth Option showed a negative performance in Q3 (-0.0048), HSBC Large Cap Equity Fund – Growth recorded negative performance in Q2 (-0.0480) and Q4 (-0.0083) and IDFC Large Cap Fund-Regular Plan-Growth recorded negative values on Q1 (-0.0034) and Q3 (-0.0201) whereas LIC MF Large Cap Fund-Regular Plan-Growth records a negative performance in Q1 (-0.0030) alone. The recorded Beta values for the period 2014-15 are below 1. The correlation for the period 2014-15 recorded positive values. The NAV of HSBC Large Cap Equity Fund – Growth recorded a negative value during Q2 (-0.7260). The Sharpe and Treynor ratio arrived at negative values for all growth funds throughout the year 2014-15. Jenson alpha recorded the measure of fund managers with positive figures except for the two funds - HSBC Large Cap Equity Fund - Growth and L&T India Large Cap Fund - Regular Plan - Growth which recorded negative figures for Q1 (-0.4808) and Q1 (-0.0537) respectively. HSBC Large Cap Equity Fund – Growth recorded a negative Jenson alpha for Q4 (-0.0572).

Performance of the selected funds for the year 2015-16 is tabulated in Table 4. The total return of all the selected growth fund four quarters showed a negative figure. It may also be noticed that Nifty also recorded a negative return. Reliance Large cap Fund – Direct Growth Plan growth option, BNP Paribas Large Cap fund –Growth Option, outperformed nifty during Q3 (0.0131, 0.0187) respectively. Tata Large cap fund regular plan growth outperformed during the first three quarters except Q4 (-0.016). HSBC Large Cap equity fund- growth outperformed for all three years. L&T and LIC growth plan showed a negative performance in Q4 (-0.0124, -0.0124) respectively where IDFC growth plan showed a positive outperformance in Q4 (0.0107). The standard deviation (daily return and annualized return) of Nifty and all the selected growth fund showed positive values. Taking a government security return of 5.937 Beta, NAV, Correlation, Sharpe, Treynor & Jenson ratio was calculated. Beta value recorded below 1 for Reliance growth fund and HSBC growth fund except for Q3 (1.0050). L&T growth fund and LIC growth plan had a beta value above 1 except for Q4 (0.1408, 0.1408) respectively. The NAV of Nifty and all selected fund recorded a negative value. The Sharpe and Treynor ratio recorded a negative value when compared with Nifty. Jenson alpha recorded positive figures for Reliance growth plan and Tata growth plan during 2015-2016. But during Q3 (-0.1013,-0.1171) the figures were negative for the respective funds. L&T & LIC growth plan recorded negative values for three quarters, but recorded a positive Jenson ration in Q4 (7.1363, 7.1363).

	2014 - 2015	Nifty	Reliance Large Cap Fund - Direct Plan - Growth Option	BNP PARIBAS LARGE CAP FUND - Growth Option	Tata Large Cap Fund Regular Plan - Growth	HSBC Large Cap Equity Fund - Growth	L&T India Large Cap Fund - Regular Plan - Growth	IDFC Large Cap Fund - Regular Plan - Growth	LIC MF Large Cap Fund - Regular Plan - Growth
Total Return									
	Q1	0.1325	0.2264	0.2135	0.1518	0.1820	0.1895	0.1290	0.1294
	Q2	0.0407	0.0572	0.0813	0.0539	-0.0073	0.0540	0.0471	0.0935
	Q3	0.0548	0.1064	0.0500	0.0569	0.0620	0.0778	0.0347	0.0865
	Q4	0.0250	0.0492	0.0903	0.0451	0.0167	0.0515	0.0361	0.0555
Out performance									
	Q1		0.0939	0.0810	0.0193	0.0495	0.0571	-0.0034	-0.0030
	Q2		0.0165	0.0406	0.0132	-0.0480	0.0133	0.0064	0.0528
	Q3		0.0516	-0.0048	0.0021	0.0072	0.0230	-0.0201	0.0317
	Q4		0.0242	0.0653	0.0201	-0.0083	0.0265	0.0111	0.0305

std v (D aily retu rn)	Q1	0.0089	0.0096	0.0097	0.0087	0.0104	0.0098	0.0089	0.0074	
	Q2	0.0079	0.0093	0.0084	0.0077	0.0105	0.0094	0.0078	0.0079	
	Q3	0.0079	0.0088	0.0073	0.0077	0.0094	0.0088	0.0077	0.0079	
	Q4	0.0101	0.0099	0.0088	0.0092	0.0107	0.0105	0.0098	0.0103	
std v (a nnua lized)	Q1	0.1407	0.1520	0.1534	0.1386	0.1656	0.1563	0.1417	0.1174	
	Q2	0.1256	0.1477	0.1333	0.1228	0.1666	0.1492	0.1233	0.1259	
	Q3	0.1248	0.1395	0.1167	0.1224	0.1494	0.1398	0.1228	0.1259	
	Q4	0.1596	0.1577	0.1389	0.1454	0.1694	0.1666	0.1560	0.1631	
G S ec R etur n	Q1	5.9370								
	Beta	Q1		0.9648	0.9950	0.9449	1.1057	1.0321	0.9814	0.9640
	Q2		0.6333	0.6278	0.6274	0.7686	0.6698	0.6208	0.9226	
	Q3		0.2243	0.0802	0.1075	0.2343	0.1658	0.1723	0.9082	
	Q4		0.9088	0.7595	0.8762	1.0139	0.9591	0.9544	0.9330	
NAV	Q1	13.2464	22.6381	21.3466	15.1813	18.2004	18.9539	12.9015	12.9417	
	Q2	4.0715	5.7182	8.1282	5.3941	-0.7260	5.3977	4.7099	9.3503	
	Q3	5.4799	10.6388	4.9975	5.6872	6.1951	7.7827	3.4669	8.6514	
	Q4	2.4988	4.9233	9.0254	4.5100	1.6674	5.1488	3.6124	5.5512	
Corr elati on	Q1		0.9085	0.9284	0.9763	0.9556	0.9454	0.9913	0.8184	
	Q2		0.5476	0.5916	0.6417	0.5888	0.5732	0.6429	0.9356	
	Q3		0.2043	0.0858	0.1096	0.1993	0.1508	0.1783	0.9172	
	Q4		0.9350	0.8722	0.9618	0.9713	0.9339	0.9928	0.9283	
Shar pe R atio	Q1		-37.5623	-37.3049	-41.7533	-34.7436	-36.7773	-40.9766	-49.4772	
	Q2		-39.8165	-43.9192	-47.8921	-35.6727	-39.4340	-47.7810	-46.4175	
	Q3		-41.7830	-50.4609	-48.0280	-39.3168	-41.9232	-48.0705	-46.4820	
	Q4		-37.3326	-42.0845	-40.5337	-34.9541	-35.3189	-37.8282	-36.0654	
Trey nor Ratio	Q1		-5.9187	-0.8170	-6.1223	-5.2051	-0.8109	-5.9178	-6.0246	
	Q2		-9.2837	-1.0876	-9.3771	-7.7344	-1.0601	-9.4880	-6.3339	
	Q3		-25.9992	-1.4340	-54.6908	-25.0788	-0.5253	-34.2636	-6.4419	
	Q4		-6.4785	-1.3908	-6.7244	-5.8392	-1.1417	-6.1825	-6.3039	
Jense n Ra tio	Q1		0.3366	0.1614	0.4521	-0.4808	-0.0537	0.2402	0.3416	
	Q2		2.2026	2.2353	2.2378	1.4054	1.9875	2.2768	0.4972	
	Q3		4.6179	5.4654	5.3046	4.5590	4.9616	4.9237	0.5948	
	Q4		0.5641	1.4469	0.7569	-0.0572	0.2665	0.2943	0.4212	

Source: Author's Calculation

	2015 - 2016	Nifty	Reliance Lar ge Cap Fun d - Direct Pl an Growth Plan - Grow th Option	BNP PA RIBAS LARGE CAP F und-Gro wth Opt ion	Tata Lar ge Cap Fund Re gular Pl an - Gr owth	HSBC Lar ge Cap Eq uity Fund - Growth	L&T Indi a Large C ap Fund - Regular Plan - Gro wth	IDFC Large Cap Fund- Regular Pla n-Growth	LIC MF La rge Cap Fu nd-Regular Plan-Growth
Total Ret urn	Q1	-0.0254	-0.0326	-0.0339	-0.0163	-0.0148	-0.0203	-0.0339	-0.0203
	Q2	-0.0254	-0.0326	-0.0339	-0.0163	-0.0148	-0.0203	-0.0339	-0.0203
	Q3	-0.0596	-0.0465	-0.0410	-0.0307	-0.0495	-0.0415	-0.0741	-0.0415

	Q4	-0.0266	-0.0591	-0.0531	-0.0281	-0.0197	-0.0389	-0.0159	-0.0389	
Outperfor man ce	Q1		-0.0072	-0.0085	0.0091	0.0106	0.0051	-0.0085	0.0051	
	Q2		-0.0072	-0.0085	0.0091	0.0106	0.0051	-0.0085	0.0051	
	Q3		0.0132	0.0187	0.0289	0.0101	0.0182	-0.0145	0.0182	
	Q4		-0.0326	-0.0266	-0.0016	0.0069	-0.0124	0.0107	-0.0124	
Stdev (D aily retur n)	Q1	0.0102	0.0101	0.0095	0.0099	0.0101	0.0114	0.0099	0.0114	
	Q2	0.0102	0.0101	0.0095	0.0099	0.0101	0.0114	0.0099	0.0114	
	Q3	0.0125	0.0131	0.0112	0.0124	0.0129	0.0132	0.0126	0.0132	
	Q4	0.0124	0.0140	0.0108	0.0115	0.0132	0.0119	0.0120	0.0119	
Stdev (a nnua lized)	Q1	0.1615	0.1602	0.1516	0.1577	0.1604	0.1810	0.1564	0.1810	
	Q2	0.1615	0.1602	0.1516	0.1577	0.1604	0.1810	0.1564	0.1810	
	Q3	0.1980	0.2083	0.1774	0.1975	0.2053	0.2088	0.2002	0.2088	
	Q4	0.1967	0.2223	0.1721	0.1827	0.2102	0.1895	0.1903	0.1895	
G S ec R eturn	Q1	5.9370								
	Beta	Q1		0.9329	0.8713	0.9508	0.9504	1.0398	0.9406	1.0398
		Q2		0.9329	0.8713	0.9508	0.9504	1.0398	0.9406	1.0398
		Q3		1.0050	0.8673	0.9856	1.0069	1.0092	0.9827	1.0092
Q4			0.1668	0.1281	0.1362	0.1465	0.1408	0.0929	0.1408	
NAV	Q1	-2.5360	-2.6432	-2.6335	-1.6309	-1.4755	-2.0260	-3.3901	-2.0260	
	Q2	-2.5360	-2.6432	-2.6335	-1.6309	-1.4755	-2.0260	-3.3901	-2.0260	
	Q3	-5.9641	-4.6483	-4.0979	-3.0746	-4.9507	-4.1485	-7.4117	-4.1485	
	Q4	-2.6572	-5.9137	-5.3141	-2.8134	-1.9678	-3.8927	-1.5853	-2.1291	
Corr elati on	Q1		0.9566	0.9284	0.9740	0.9731	0.9434	0.9879	0.9434	
	Q2		0.9566	0.9284	0.9740	0.9731	0.9434	0.9879	0.9434	
	Q3		0.9706	0.9681	0.9881	0.9865	0.9724	0.9874	0.9724	
	Q4		0.1501	0.1463	0.1466	0.1393	0.1485	0.0976	0.1485	
Shar pe R atio	Q1		-52.0764	-55.0409	-52.8039	-51.8907	-46.0138	-53.3531	-46.0138	
	Q2		-52.0764	-55.0409	-52.8039	-51.8907	-46.0138	-53.3531	-46.0138	
	Q3		-40.1167	-47.0716	-42.2246	-40.7126	-40.0002	-41.8731	-40.0002	
	Q4		-37.6468	-48.5860	-45.6320	-39.6263	-44.0531	-43.7554	-44.0531	
Trey nor Rati o	Q1		-8.9425	-1.1660	-8.7570	-8.7588	-0.9640	-8.8709	-8.0116	
	Q2		-8.9425	-1.1660	-8.7570	-8.7588	-0.9640	-8.8709	-8.0116	
	Q3		-8.3150	-1.3277	-8.4624	-8.3025	-1.1415	-8.5315	-8.2756	
	Q4		-50.1606	-1.7703	-61.2286	-56.8572	-1.5092	-89.6258	-59.3017	
Jens en R atio	Q1		0.5338	1.0470	0.3846	0.3877	-0.3569	0.4698	-0.3569	
	Q2		0.5338	1.0470	0.3846	0.3877	-0.3569	0.4698	-0.3569	
	Q3		-0.1013	1.0513	0.0607	-0.1171	-0.1364	0.0850	-0.1364	
	Q4		6.9191	7.2425	7.1747	7.0887	7.1363	7.5356	7.1363	

Source: Author's Calculation

The comparison of return and risk-adjusted return of selected mutual fund for the year 2016-17 is tabulated in Table 5. The total return of Nifty recorded a negative figure in

the Q3 (-0.0632). The same has been reflected in growth fund option of selected mutual fund companies. Reliance, L&T, IDFC growth funds showed negative values when for Q1 (-0.0108, -0.0104, -0.0039) & Q3 (-0.0057, -0.0381, -0.0055) respectively where BNP recorded negative values in Q2 (-0.0104) & Q3 (-0.0584). Tata and LIC recorded negative values when the outperformance was calculated for Q3 (-0.0178,-0.0089) & Q4 (-0.0089, -0.0144). Daily and annualized standard deviation on the returns was observed to have positive values. The government security rate of return (5.9370) was taken into account to assess the risk adjusted return of the growth funds. It was noticed that Beta values for Q1 had values below 1. Except Q2 (0.9675, 0.9596) for IDFC and LIC the funds showed a value above 1 and during Q3 (0.9221) Tata growth fund has a value below 1. The NAV showed a negative figure during the Q3 for all the growth plans where Nifty also recorded a negative value. The correlation between index and selected growth fund recorded positive values. Sharpe and Tryenor's ratio recorded negative values across all four quarters of 2016-17. The Jensen alpha recorded positive values for Tata growth plan whereas for the Q2 (-0.5368, -0.3262, -0.1202) & Q3 (-0.3493, -1.12996, -0.9621) the representation was negative figure for the Reliance, HSBC and L&T growth plans respectively.

Table 6, represents the performance of the selected growth funds in accordance to various measures of performances for the year 2017-18. The total return recorded negative figures during the Q4 for all the selected growth funds and Nifty. Outperformance recorded a positive value, but for Q2 (-0.0021, -0.0159) and Q4(-0.0312, -0.0248) for Reliance and BNP growth fund respectively. Tata and IDFC recorded a negative value during the Q4(-0.0296, -0.0369) respectively. Other growth funds outperformed with a negative value in minimum of two quarters. The standard deviation of daily and annualized return recorded a positive value. With government security of 5.9370 the beta value was arrived above 1 on most of the selected growth fund. NAV recorded negative figure for all the growth plans and Nifty during Q3 of the 2016-17. Sharpe & Treynor ratio showed records for all quarter of 2017-18. Jensen alpha showed a positive record only for IDFC and LIC growth plan for the Q2 (0.0258, 0.3968). Q1 (-0.1638,-0.0831) recorded negative Jensen alpha only for HSBC and L&T growth funds. Q3 showed a positive Jensen ratio for all growth plans whereas Q4 (-0.4184) recorded a negative ration only for HSBC.

	2016 - 2017	Nifty	Reliance Large Cap Fund - Direct Plan Growth Option	BNP PARIBAS LARGE CAP Fund-Growth Option	Tata Large Cap Fund Regular Plan - Growth	HSBC Large Cap Equity Fund - Growth	L&T India Large Cap Fund - Regular Plan - Growth	IDFC Large Cap Fund- Regular Plan-Growth	LIC MF Large Cap Fund-Regular Plan-Growth
Total Return	Q1	0.0745	0.0637	0.0853	0.0655	0.0809	0.0641	0.0706	0.0760
	Q2	0.0340	0.0710	0.0236	0.0562	0.0743	0.0614	0.0536	0.0613
	Q3	-0.0632	-0.0689	-0.1216	-0.0810	-0.0709	-0.1013	-0.0687	-0.0944
	Q4	0.1216	0.1512	0.1764	0.1126	0.1385	0.1316	0.1228	0.1071
Outperformance	Q1		-0.0108	0.0108	-0.0090	0.0064	-0.0104	-0.0039	0.0015
	Q2		0.0371	-0.0104	0.0223	0.0403	0.0274	0.0196	0.0274
	Q3		-0.0057	-0.0584	-0.0178	-0.0077	-0.0381	-0.0055	-0.0312
	Q4		0.0297	0.0549	-0.0089	0.0169	0.0101	0.0013	-0.0144
stdev (Daily return)	Q1	0.0088	0.0091	0.0080	0.0075	0.0084	0.0080	0.0079	0.0080
	Q2	0.0070	0.0083	0.0077	0.0066	0.0079	0.0076	0.0071	0.0072
	Q3	0.0092	0.0102	0.0108	0.0087	0.0111	0.0109	0.0097	0.0104
	Q4	0.0057	0.0064	0.0067	0.0059	0.0061	0.0063	0.0060	0.0062
stdev (annuali)	Q1	0.1395	0.1437	0.1273	0.1186	0.1327	0.1267	0.1253	0.1272

zed)									
	Q2	0.1109	0.1316	0.1229	0.1040	0.1254	0.1210	0.1120	0.1143
	Q3	0.1465	0.1612	0.1719	0.1386	0.1756	0.1733	0.1533	0.1643
	Q4	0.0907	0.1022	0.1065	0.0932	0.0968	0.0994	0.0950	0.0992
G Sec Return	Q1	5.9370							
Beta	Q1		0.9593	0.8497	0.8309	0.9024	0.8740	0.8676	0.8585
	Q2		1.0690	1.0024	0.9127	1.0435	1.0186	0.9675	0.9596
	Q3		1.0342	1.0979	0.9221	1.1477	1.1074	1.0103	1.0595
	Q4		0.9755	1.0465	0.9712	1.0014	1.0064	1.0023	1.0045
NAV	Q1	7.4510	6.3724	8.5325	6.5513	8.0870	6.4096	7.0568	7.6012
	Q2	3.3956	7.1022	2.3567	5.6231	7.4255	6.1369	5.3588	6.1319
	Q3	-6.3206	-6.8945	-12.1642	-8.1047	-7.0901	-10.1335	-6.8732	-9.4402
	Q4	12.1554	15.1216	17.6415	11.2605	13.8487	13.1646	12.2817	10.7115
Correlation	Q1		0.9468	0.9312	0.9772	0.9648	0.9788	0.9826	0.9575
	Q2		0.9209	0.9089	0.9783	0.9431	0.9542	0.9791	0.9511
	Q3		0.9554	0.9358	0.9750	0.9733	0.9517	0.9814	0.9603
	Q4		0.8976	0.9078	0.9519	0.9612	0.9399	0.9794	0.9453
Sharpe Ratio	Q1		-57.3740	-64.5966	-69.4859	-62.0182	-65.0949	-65.7780	-64.7360
	Q2		-62.6290	-67.4002	-79.3628	-65.6768	-68.1824	-73.7238	-72.1408
	Q3		-51.9747	-49.0591	-60.5591	-47.7203	-48.5344	-54.6486	-51.1419
	Q4		-79.8073	-76.3406	-87.9092	-84.4414	-82.2565	-86.1710	-82.6994
Treynor Ratio	Q1		-8.5965	-0.8687	-9.9226	-9.1190	-0.8688	-9.4966	-9.5916
	Q2		-7.7074	-0.9662	-9.0428	-7.8923	-0.9137	-8.5334	-8.5961
	Q3		-8.1021	-1.1118	-9.0994	-7.3026	-1.0840	-8.2934	-7.9322
	Q4		-8.3634	-0.7366	-8.4406	-8.1599	-0.8105	-8.1685	-8.1661
Jensen Ratio	Q1		0.4101	1.3127	1.4673	0.8782	1.1121	1.1648	1.2402
	Q2		-0.5368	0.0137	0.7561	-0.3262	-0.1202	0.3025	0.3685
	Q3		-0.3493	-0.8831	0.5886	-1.2996	-0.9621	-0.1493	-0.5617
	Q4		0.3218	-0.2591	0.3575	0.1099	0.0694	0.1028	0.0847

Source: Author’s Calculation

Table 6
COMPARISION OF RETURN AND RISK-ADJUSTED RETURN OF SELECTED MUTUAL FUND FOR YEAR 2017-2018

	2017 - 2018	Nifty	Reliance Large Cap Fund - Direct Plan - Growth Option	BNP PARIBAS LARGE CAP FUND - Growth Option	Tata Large Cap Fund Regular Plan - Growth	HSBC Large Cap Equity Fund - Growth	L&T India Large Cap Fund - Regular Plan - Growth	IDFC Large Cap Fund - Regular Plan - Growth	LIC MF Large Cap Fund - Regular Plan - Growth
Total Return	Q1	0.0306	0.0538	0.0675	0.0401	0.0344	0.0355	0.0615	0.0447
	Q2	0.0181	0.0160	0.0021	0.0198	0.0269	0.0150	0.0257	0.0282
	Q3	0.0681	0.1080	0.0735	0.0757	0.0534	0.0634	0.0766	0.0459
	Q4	-0.0308	-0.0620	-0.0556	-0.0604	-0.0382	-0.0342	-0.0677	-0.0457
Outperformance	Q1		0.0232	0.0368	0.0094	0.0038	0.0048	0.0308	0.0141
	Q2		-0.0021	-0.0159	0.0018	0.0089	-0.0031	0.0076	0.0101
	Q3		0.0399	0.0054	0.0076	-0.0147	-0.0047	0.0085	-0.0222
	Q4		-0.0312	-0.0248	-0.0296	-0.0074	-0.0034	-0.0369	-0.0149
stdev (Daily return)	Q1	0.0049	0.0057	0.0058	0.0054	0.0054	0.0056	0.0056	0.0050
	Q2	0.0062	0.0073	0.0068	0.0068	0.0071	0.0069	0.0069	0.0065
	Q3	0.0057	0.0062	0.0057	0.0057	0.0060	0.0054	0.0051	0.0056
	Q4	0.0078	0.0083	0.0079	0.0079	0.0086	0.0079	0.0081	0.0077
stdev (annualized)	Q1	0.0770	0.0901	0.0924	0.0851	0.0861	0.0888	0.0893	0.0789
	Q2	0.0987	0.1156	0.1077	0.1082	0.1132	0.1097	0.1088	0.1028
	Q3	0.0900	0.0989	0.0901	0.0906	0.0951	0.0859	0.0812	0.0883
	Q4	0.1245	0.1323	0.1258	0.1252	0.1359	0.1254	0.1287	0.1226
G Sec Return	Q1	5.9370							
Beta	Q1		1.0020	0.9281	0.9875	1.0235	1.0137	0.9673	0.9225

	Q2		1.0860	1.0079	1.0374	1.0852	1.0453	0.9991	0.9543
	Q3		0.9607	0.9038	0.9258	0.9901	0.8960	0.7925	0.9102
	Q4		0.9660	0.9443	0.9562	1.0465	0.9508	0.9358	0.9110
NAV	Q1	3.0640	5.3827	6.7482	4.0061	3.4423	3.5477	6.1453	4.4704
	Q2	1.8055	1.5999	0.2123	1.9827	2.6948	1.4976	2.5688	2.8172
	Q3	6.8076	10.7983	7.3476	7.5707	5.3392	6.3379	7.6587	4.5924
	Q4	-3.0842	-6.2043	-5.5607	-6.0405	-3.8238	-3.4246	-6.7720	-4.5732
Correlation	Q1		0.8705	0.7732	0.8934	0.9307	0.8940	0.8479	0.9156
	Q2		0.9418	0.9232	0.9456	0.9615	0.9551	0.9205	0.9310
	Q3		0.8881	0.9021	0.9190	0.9520	0.9542	0.8921	0.9422
	Q4		0.9244	0.9347	0.9509	0.9747	0.9604	0.9204	0.9409
Sharpe Ratio	Q1		-91.5994	-89.1794	-97.1675	-96.1019	-93.1920	-92.3382	-104.7647
	Q2		-71.7445	-77.1306	-76.5910	-73.2012	-75.5980	-76.1340	-80.5880
	Q3		-82.9082	-91.3914	-90.8730	-86.8095	-96.0284	-101.3454	-93.5459
	Q4		-63.2752	-66.5139	-66.8567	-61.4186	-66.5668	-65.0870	-68.1672
Treynor Ratio	Q1		-8.2397	-0.9515	-8.3744	-8.0857	-0.9028	-8.5271	-8.9594
	Q2		-7.6371	-1.0242	-7.9914	-7.6324	-0.9753	-8.2921	-8.6782
	Q3		-8.5378	-0.9887	-8.8946	-8.3391	-1.0086	-10.3891	-9.0798
	Q4		-8.6665	-1.1393	-8.7536	-7.9776	-1.1090	-8.9527	-9.1725
Jensen Ratio	Q1		0.0141	0.6257	0.1339	-0.1638	-0.0831	0.3011	0.6720
	Q2		-0.6952	-0.0473	-0.2919	-0.6888	-0.3576	0.0258	0.3968
	Q3		0.3923	0.8610	0.6799	0.1496	0.9252	1.7782	0.8085
	Q4		0.2526	0.4337	0.3343	-0.4184	0.3792	0.5049	0.7119

Source: Author’s Calculation

Table 7
COMPARISON OF RETURN AND RISK-ADJUSTED RETURN OF SELECTED MUTUAL FUND FOR YEAR 2018-2019

	2017 - 2018	Nifty	Reliance Large Cap Fund - Direct Plan Growth Option	BNP PARIBAS LARGE CAP FUND-Growth Option	Tata Large Cap Fund Regular Plan - Growth	HSBC Large Cap Equity Fund - Growth	L&T India Large Cap Fund - Regular Plan - Growth	IDFC Large Cap Fund-Regular Plan-Growth	LIC MF Large Cap Fund-Regular Plan-Growth
Total Return	Q1	0.0492	0.0083	0.0204	0.0170	0.0352	0.0148	0.0463	0.0372
	Q2	0.0256	0.0396	-0.0183	-0.0073	-0.0076	-0.0037	0.0063	-0.0243
	Q3	-0.0132	0.0207	0.0138	0.0116	-0.0210	-0.0005	-0.0226	0.0320
	Q4	0.0654	0.0620	0.0510	0.0604	0.0665	0.0554	0.0576	0.0274
Outperformance	Q1		-0.0409	-0.0288	-0.0322	-0.0140	-0.0344	-0.0029	-0.0120
	Q2		0.0140	-0.0439	-0.0330	-0.0332	-0.0293	-0.0193	-0.0499
	Q3		0.0339	0.0270	0.0249	-0.0077	0.0127	-0.0094	0.0453
	Q4		-0.0034	-0.0144	-0.0050	0.0011	-0.0100	-0.0079	-0.0380
stdev (Daily return)	Q1	0.0060	0.0072	0.0056	0.0061	0.0068	0.0061	0.0058	0.0061
	Q2	0.0066	0.0086	0.0097	0.0075	0.0076	0.0069	0.0068	0.0070
	Q3	0.0110	0.0114	0.0099	0.0105	0.0109	0.0102	0.0100	0.0106
	Q4	0.0067	0.0077	0.0062	0.0067	0.0069	0.0068	0.0064	0.0063
stdev (annualized)	Q1	0.0957	0.1147	0.0885	0.0971	0.1080	0.0970	0.0928	0.0963
	Q2	0.1046	0.1358	0.1547	0.1192	0.1207	0.1093	0.1078	0.1105
	Q3	0.1749	0.1802	0.1576	0.1663	0.1731	0.1626	0.1586	0.1679
	Q4	0.1067	0.1227	0.0978	0.1065	0.1102	0.1075	0.1015	0.1003
G Sec Return	Q1	5.9370							
Beta	Q1		1.0603	0.8868	0.9308	1.0806	0.9492	0.8876	0.8706
	Q2		1.1311	1.0410	1.0873	1.0777	0.9912	0.9598	0.9603
	Q3		0.9237	0.8779	0.9167	0.9568	0.8991	0.8567	0.8995
	Q4		0.9592	0.8702	0.9555	0.9833	0.9667	0.8934	0.8717
NAV	Q1	4.9208	0.8279	2.0448	1.7044	3.5227	1.4846	4.6260	3.7198
	Q2	2.5630	3.9582	-1.8278	-0.7334	-0.7583	-0.3710	0.6284	-2.4251
	Q3	-1.3240	2.0702	1.3792	1.1627	-2.0962	-0.0547	-2.2611	3.2010

	Q4	6.5426	6.1995	6.4011	8.0329	8.9048	7.7180	7.3267	4.5148
Correlation	Q1		0.5986	0.7750	0.6197	0.8816	0.5759	0.9707	0.8427
	Q2		0.9311	0.8584	0.9668	0.9689	0.9142	0.9740	0.7599
	Q3		0.8901	0.9695	0.9637	0.9574	0.9713	0.9753	0.9321
	Q4		0.9245	0.9493	0.9788	0.9903	0.9846	0.9755	0.9297
Sharpe Ratio	Q1		-72.3612	-93.6484	-85.4148	-76.6453	-85.5364	-89.0747	-85.9285
	Q2		-60.8822	-53.8193	-69.8013	-68.9098	-76.0557	-77.0279	-75.4168
	Q3		-46.0019	-52.6462	-49.8937	-48.1406	-51.1101	-52.5482	-49.3013
	Q4		-67.2211	-84.4247	-77.4683	-74.8121	-76.7783	-81.3134	-82.5925
Trenor Ratio	Q1		-7.8298	0.0231	-8.9092	-7.6575	0.0156	-9.3098	-9.5029
	Q2		-7.3117	-0.0176	-7.6497	-7.7181	-0.0037	-8.6518	-8.6788
	Q3		-8.9740	0.0157	-9.0524	-8.7074	-0.0006	-9.7265	-9.2031
	Q4		-8.5988	0.0586	-8.6336	-8.3834	0.0573	-9.2374	-9.5021
Jensen Ratio	Q1		-0.4487	0.9843	0.6206	-0.6167	0.4692	0.9774	1.1185
	Q2		-1.0606	-0.3144	-0.6974	-0.6178	0.0989	0.3589	0.3545
	Q3		0.6219	1.0032	0.6801	0.3466	0.8266	1.1796	0.8234
	Q4		0.4017	1.1360	0.4322	0.2030	0.3399	0.9445	1.1236

Source: Author's Calculation

Table 7 is tabulated performance of the selected growth plan for the year 2018-19. The total return of Nifty showed a negative value during Q3 (-0.0132) where the selected growth funds except HSBC, L&T and IDFC growth fund showed Q3(-0.0210, -0.0005, -0.0226) return reflecting Nifty respectively. Q2 recorded a negative return for all funds except Reliance & IDFC selected growth fund Q2 (0.0396, 0.0063) respectively. None of the selected growth fund outperformed Nifty during Q1 whereas, in Q2 (0.0140) outperformed. HSBC and IDFC recorded a negative value in Q3 (-0.0077, -0.0094). HSBC growth plan recorded a positive outperformance for the period Q4 (0.0011). The daily and annualized standard deviation records a positive value. The risk free rate is taken as 5.9370 and the beta value is recorded below 1 for L&T, IDFC and LIC respectively in all quarters of 2018-19. Sharpe ratio records negative values all throughout the quarters. Treynors ratio recorded a positive value in Q1 (0.0231, 0.0156) for the growth plans of BNP & L&T. BNP sustained positive Treynor's ratio for Q3 (0.0157) & Q4 (0.0586) wherein, L&T recorded a positive Treynor's ratio by Q4 (0.0573).

Findings

Systematic risk and volatility is measured by Beta. The selected mutual fund has been observed and the Beta value less than 1 represents that the security is less volatile compared to the market. The beta value when recorded more than 1 it can be arrived that the growth fund is more than more volatile compared to the market. It is noted that none of the selected growth plan offered by the companies accounting for high AAUM shows a Beta more than 2. This implies that the growth plans are highly volatile and movement of stocks are not crossing 2.

RECOMMENDATIONS & CONCLUSION

The growth funds offered by various mutual fund managers selected on the basis of AAUM as on Mar 2019 establishes the fact that the "mutual funds are subject to market risk". The fluctuations in the markets are highly reflected in the performance of mutual fund companies. The Beta value of the selected growth plans depicts that, beta value is more than 1 for each collected data for the past five years. It means that the fund will be more volatile than the market but not exceeding two. From the above study it is also evident that market

corollaries are more and therefore the fund managers may not beat the market by their stock picking skills as per Jensen ratio.

Though the mutual fund schemes show less chances of procuring stable returns compared to the risk free return investments, it is also representing that long run investments are to be made to see higher returns. The large cap funds represents investments made in stable companies. Risk-averse investors who intent to invest on long run should stay invested for a minimum period of 5 years or more. The fund may not show positive return on immediate basis.

Mutual fund investors will yield a prominent corpus of returns considering the market volatility and the significant risk accepted while investing in the schemes committing for a long time. Investors with a short term investment motive may choose to invest in Nifty 50 taking advantage of the market fluctuations. Based on the study, it may be considered that the short time investors can choose to invest directly in capital market securities. It may also be noted that the large cap mutual funds are market oriented and therefore the repercussions of the market volatility can be noted evidently.

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