

Performance Evaluation of Equity Schemes of Selected Fund Houses of India: With Special Reference to Covid Era

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ABSTRACT

“If human is the most intellectual animal on this planet Earth, Nature is his Mother”. Last year, the time has gone as in a state of war, or say, a biological war against an unseen virus. At that time, probably Stock Markets of the world were the only market which were open and it was replicating the adversity that was going to be caused by the pandemic over the economy. Mutual Funds, where people normally invest to mitigate the risk, were also going in red and seeming risky. Today after the year has passed, it is the time to analyse the performance of the mutual funds and their fund managers that how much they have been successful to mitigate the risk for their investors. The present paper focuses on analyzing the performance of selected 30 Equity mutual fund schemes of different AMCs on the parameter of their 12 months return ranging from Jan.2020 to Dec.2020. Data of all the schemes have been collected from secondary sources and Nifty50 has been selected as Benchmark for comparison. All the data has been worked on after compilation and results have been drawn through the tools like Standard Deviation, Beta, Sharpe, Treynor, Jensen Alpha, and M2 measure. The return of 10-year gov bond has been used for Risk-free rate.

Keywords: Equity; Mutual Funds Performance Evaluation; Risk; M2; Modigliani; Investment; Covid

INTRODUCTION

Equity mutual funds are that category of mutual funds which is inclined towards the equity shares investment. Mutual fund is a pool of savings that channelizes investors' fund towards the capital market. Equity funds invest particularly and majorly in equity shares of the listed companies. The decision of investment and selectivity is taken by the fund manager. This study covers open ended equity mutual fund schemes with direct plan and growth option only. Open ended schemes all those schemes in which investment can be made at any time and also can be withdrawn without having any fixed term. Direct plan means the investors' purchase of a scheme is directed by him only and not any agent and therefore the commission rate for investment comes down to its minimum. Growth option means the dividend paid off by the invested companies will be reinvested and not disbursed to the investor. Mitigation of the risk through diversification of the portfolio and to overpass the return of the benchmark through strategic investment is the prime motto of an asset management company. The recently ended year 2020 is no doubt one of the most unpredictable years in the history of world stock markets. The risk exposure enlarged and reached a new depth in this period. The

Sensex which was at around 42000 in in Jan-Feb 2020 came to the bottom of about 27000 in April-May 2020. The result was that it hit the perception of mutual fund investors as they were worried of their return and the capital invested. Any investor, who wants to safeguard himself from the innocent risk of the stock market, chooses the path of mutual fund to plan his investment for a better return. But with such a hit and the downgrade many investors started thinking to withdraw their equity investments. Capabilities are examined in adversities. The present study tries to examine the mutual fund houses in terms of their performance in an adversity.

LITERATURE REVIEW

Mishra has performed a study on mutual funds' performance for four year from 1992 to 1996. The study focused on public sector mutual funds with a sample size of 24 schemes. The tools used were Sharpe, Treynor and Jensen Alpha. The study concluded a dismal return-wise performance [1]. Roy & Deb in their study the researchers evaluated a sample of 89 Indian mutual fund schemes measuring with both unconditional and conditional form of CAPM model. It explains how conditionality improved the performance of mutual fund schemes, causing alphas to shift towards right and

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reducing the number of negative timings [2].

Kumar Vikas there are evaluated selected 20 schemes of 5 mutual fund companies. The data collected where the monthly NAV from 1st January 2002 to 31st December 2009. This holistic 120 months data were analyzed through the standard deviation, beta, and coefficient of determination, Sharpe, Treynor, and Jensen Alpha. The study concluded that 20 equity schemes showed better return as compared to depth and balance scheme [3]. Anand and Murugaiah in this paper, an attempt has been made to examine the components and sources of investment performance in order to attribute it to specific activities of Indian fund managers. For this purpose, Fama's methodology is adopted here. The study covers the period between April 1999 and March 2003 and evaluates the performance of mutual funds based on 113 selected schemes having exposure more than 90% of corpus to equity stocks of 25 fund houses [4]. Kumar Vikas has examined the sensitivity of the funds to the market fluctuations in the terms of Beta. The researcher used open-ended schemes of mutual funds and analysed their performance with risk-return adjustment, the model suggested by Sharp, Treynor and Jensen [5].

Kumar Vikas and Poddar in this paper the researcher evaluated the performance of HDFC mutual funds open-ended schemes with growth option. The period of the study was from 2008 to 2013 and the benchmark was BSE100. For the analysis of the performance statistical tools like average, standard deviation, beta, coefficient of determination and the risk adjusted performance measures suggested by Treynor and Sharpe were employed [6]. Krishnaprabha has performed a comprehensive study on mutual fund schemes' performance analysis by using risk-adjusted performance measures and Sharpe ratio, Treynor ratio and Jensen Alpha, which measures the market selectivity of the fund manager [7]. Vikas Choudhary and Preeti Chawla in this paper the researchers tried to examine the performance of equity schemes of mutual funds on the basis of selectivity and market timing abilities of fund managers in security market. Market timing skills relate to the ability of fund managers to correctly assess the direction of the market and position their portfolio accordingly. The study which is based on the Jensen Measure and Treynor-Mazuy Model [8].

RESEARCH GAP

After the study of above literatures, it was found that there is a need of study on the performance evaluation of Indian mutual funds in the Corona Crisis of last year. There are seven parameters upon which all these schemes have been tested in this study and this provides a very fine picture of performance of mutual funds and their fund managers at the time when it was really a big challenge to retain the returns earned by the investors.

Significance of this study

The basic objective of an investor while investing in a mutual fund is to have a better return and minimal risk in comparison to the market. Covid-19 was as an absolute challenge for every fund manager and therefore it becomes important to evaluate the performance of those fund houses and managers that whether they have been able to sustain the basic objective of mutual fund investing or they have underperformed in the period of market outbreak. This will be helpful for both the investor and the financial advisors to have a better overview over the performance of some highest rated mutual fund houses of India.

Limitations of the study

The study covers only 30 schemes of the renowned and reputed fund houses of India for a period of only 12 months ranging from 1st January 2020 to 31st December 2020. All the selected schemes are open-ended equity schemes with Direct Plan and Growth Option only. The benchmark selected is Nifty50 [9].

Scope for further research

Evaluating the performance of mutual funds is an ongoing process and a never-ending task. The present study focuses on measuring and evaluating the performance of 30 selected equity schemes of mutual fund companies. The period of study is only 12 months which can be increased further for an extensive study over mutual fund performance. The tools used are standard deviation, beta, Sharpe, Treynor, Jensen Alpha and M2. More tools can be further used for analysis. The benchmark is taken Nifty50. More research can be done by using other benchmarks also. The study is strictly focused on equity mutual funds with direct plan and Growth option. Further research can be done by using other classes of mutual funds also [10].

RESEARCH METHODOLOGY

Collection of data

The monthly NAV of the selected 30 open ended equity schemes have been collected and compiled in MS-Excel. The source of NAVs is the data available from the Association of mutual funds of India (AMFI).

Period of study

The period of history ranges from 1st January 2020 to 31st December 2020.

Benchmark index

Since all the schemes are open ended equity schemes therefore Nifty50 has been used as the benchmark index for evaluating the performance of the selected mutual fund schemes.

Risk free rate

Risk free rate of return is that minimum return that an investor may get without having any risk. For the purpose of the present study, 10-year government bond yield has been selected as risk free asset on the average rate of 1st January 2020 up to 31st December 2020. The monthly average yield came to 0.506375 which is taken as 0.5 in the paper.

Tools Used

For the purpose of measuring risk standard deviation and beta has been used. For assessing the returns using its adjusted measures Sharpe ratio, Treynor ratio and Jensen Alpha measure has been used and in order to go deeper into the analysis M2 measure has also been included in the study. The definition, description and interpretation of every tool has been given in their respective tables. All the figures in tables given below have been approximated to the fourth digit after decimal.

ANALYSIS AND INTERPRETATION

Table-1 shows the different schemes under study. As per the objective of the study, a total of 30 schemes have been selected from 11 different Mutual Fund houses operating in India.

All the selected schemes' monthly data (NAV) has been collected and returns have been calculated.

Table-2 shows the average monthly return (AMR) earned by all the selected schemes in a hierarchical order. The average monthly return of Nifty50 was 1.648%. The top performer in the terms of AMR was UTI equity fund followed by ICICI Prudential focused equity and Canara Robeco blue chip equity. Of the 30 analyzed schemes, 14 schemes performed above than the market index in the terms of average monthly returns, while the return of SBI focused equity came exactly as the market and the rest were below the market. The performance of Axis dynamic equity fund, DSP equity savings and HDFC equity savings was least in the category and lowest in comparison to the benchmark.

Table-3 shows the Standard Deviation (SD) of the selected schemes. Standard deviation denotes the total risk measure of the fund. It

Table 1: Source: Compiled data.

Rank	Compiled data of scheme
1	HDFC Equity Fund-Direct-Growth
2	HDFC Equity Savings Fund-Direct-Growth
3	HDFC Retirement Savings Fund-Equity Plan-Direct Plan
4	Axis Long Term Equity Fund-Direct-Growth
5	Axis Dynamic Equity Fund-Direct-Growth
6	Axis Equity Saver Fund-Direct-Growth
7	Aditya Birla Sun Life Equity Advantage Fund-Direct-Growth
8	Aditya Birla Sun Life Equity Fund-Direct-Growth
9	Aditya Birla Sun Life Focussed Equity Fund-Direct-Growth
10	Aditya Birla Sun Life Frontline Equity Fund-Direct-Growth
11	DSP Equity Fund-Direct-Growth
12	DSP Equity Opportunities Fund-Direct-Growth
13	DSP Equity Savings Fund-Direct-Growth
14	DSP Top 100 Equity Fund-Direct-Growth
15	ICICI Prudential Focused Equity Fund-Direct-Growth
16	ICICI Prudential Retirement Fund-Pure Equity-Direct-Growth
17	ICICI Prudential Long Term Equity Fund (Tax Saving)-Direct-Growth
18	L&T Equity Fund-Direct-Growth
19	L&T Equity Savings Fund-Direct-Growth
20	L&T Focused Equity Fund-Direct-Growth
21	Mirae Asset Equity Savings Fund-Direct-Growth
22	SBI Equity Savings Fund-Direct-Growth
23	SBI Focused Equity Fund-Direct-Growth
24	SBI Focused Equity Fund-Direct-Growth
25	SBI Magnum Equity ESG Fund-Direct-Growth
26	UTI Core Equity Fund-Direct-Growth
27	UTI Long Term Equity Fund (Tax Saving)-Direct-Growth
28	UTI Equity Fund-Direct-Growth
29	Canara Robeco Bluechip Equity Fund-Direct-Growth
30	Franklin India Equity Fund-Direct-Growth

Table 2: Average Monthly Returns.

Rank	Scheme	AMR (%)
1	UTI Equity Fund-Direct-Growth	2.8396
2	ICICI Prudential Focused Equity Fund-Direct-Growth	2.2446
3	Canara Robeco Bluechip Equity Fund-Direct-Growth	2.1940
4	Aditya Birla Sun Life Equity Advantage Fund-Direct-Growth	2.1063
5	UTI Long Term Equity Fund (Tax Saving)-Direct-Growth	2.0986
6	DSP Equity Fund-Direct-Growth	2.0320
7	Axis Long Term Equity Fund-Direct-Growth	2.0203
8	HDFC Retirement Savings Fund-Equity Plan-Direct Plan	1.9678
9	SBI Focused Equity Fund-Direct-Growth	1.9607
10	Aditya Birla Sun Life Equity Fund-Direct-Growth	1.9212
11	Franklin India Equity Fund-Direct-Growth	1.8401
12	DSP Equity Opportunities Fund-Direct-Growth	1.7432
13	Aditya Birla Sun Life Focussed Equity Fund-Direct-Growth	1.6954
14	Aditya Birla Sun Life Frontline Equity Fund-Direct-Growth	1.6658
15	SBI Focused Equity Fund-Direct-Growth	1.6481
16	ICICI Prudential Long Term Equity Fund (Tax Saving)-Direct-Growth	1.6377
17	UTI Core Equity Fund-Direct-Growth	1.6328
18	SBI Magnum Equity ESG Fund-Direct-Growth	1.6178
19	L&T Equity Fund-Direct-Growth	1.5817
20	ICICI Prudential Retirement Fund-Pure Equity-Direct-Growth	1.4680
21	L&T Focused Equity Fund-Direct-Growth	1.4487
22	DSP Top 100 Equity Fund-Direct-Growth	1.2525
23	Mirae Asset Equity Savings Fund-Direct-Growth	1.2487
24	HDFC Equity Fund-Direct-Growth	1.1141
25	Axis Equity Saver Fund-Direct-Growth	1.1071
26	SBI Equity Savings Fund-Direct-Growth	1.1070
27	L&T Equity Savings Fund-Direct-Growth	1.0356
28	Axis Dynamic Equity Fund-Direct-Growth	0.9720
29	DSP Equity Savings Fund-Direct-Growth	0.8789
30	HDFC Equity Savings Fund-Direct-Growth	0.8312
AMR of the Benchmark		1.6479

means higher the value of the standard deviation the higher will be the total risk carried by the fund. The standard deviation of Nifty50 came to 10.0025. Out of all the selected schemes 21 schemes performed better than the market in this category. It means these 21 schemes were less risky in comparison with the benchmark. The top performers were Axis dynamic equity fund, HDFC equity savings fund and Axis equity saver fund, while the performance of HDFC equity fund, UTI core equity fund and Aditya Birla Sun Life equity advantage fund was the lowest among the selected schemes because of having high SD. It may also be noted that the top funds in this parameter had SD much below than the benchmark, while those lowest performers didn't had SD much higher than the market. It means that among the sample of 30 schemes, good funds are exceptionally good and bad are not much bad in comparison to the benchmark.

Table 3: Standard Deviation.

#Rank	Scheme	SD
1	Axis Dynamic Equity Fund-Direct-Growth	3.8616
2	HDFC Equity Savings Fund-Direct-Growth	4.2690
3	Axis Equity Saver Fund-Direct-Growth	4.3476
4	Mirae Asset Equity Savings Fund-Direct-Growth	4.6242
5	SBI Equity Savings Fund-Direct-Growth	4.8044
6	L&T Equity Savings Fund-Direct-Growth	4.8282
7	DSP Equity Savings Fund-Direct-Growth	5.2956
8	L&T Focused Equity Fund-Direct-Growth	7.9621
9	ICICI Prudential Focused Equity Fund-Direct-Growth	8.3086
10	Canara Robeco Bluechip Equity Fund-Direct-Growth	8.4379
11	Axis Long Term Equity Fund-Direct-Growth	8.8972
12	SBI Focused Equity Fund-Direct-Growth	9.1585
13	HDFC Retirement Savings Fund-Equity Plan-Direct Plan	9.7297
14	Aditya Birla Sun Life Focussed Equity Fund-Direct-Growth	9.7895
15	UTI Equity Fund-Direct-Growth	9.8193
16	SBI Magnum Equity ESG Fund-Direct-Growth	9.8536
17	ICICI Prudential Retirement Fund-Pure Equity-Direct-Growth	9.8620
18	SBI Focused Equity Fund-Direct-Growth	9.8710
19	UTI Long Term Equity Fund (Tax Saving)-Direct-Growth	9.9020
20	L&T Equity Fund-Direct-Growth	9.9312
21	DSP Equity Fund-Direct-Growth	9.9742
22	Aditya Birla Sun Life Frontline Equity Fund-Direct-Growth	10.0494
23	ICICI Prudential Long Term Equity Fund (Tax Saving)-Direct-Growth	10.3185
24	Franklin India Equity Fund-Direct-Growth	10.4774
25	DSP Equity Opportunities Fund-Direct-Growth	10.5480
26	DSP Top 100 Equity Fund-Direct-Growth	10.5751
27	Aditya Birla Sun Life Equity Fund-Direct-Growth	10.7762
28	HDFC Equity Fund-Direct-Growth	10.8499
29	UTI Core Equity Fund-Direct-Growth	11.0163
30	Aditya Birla Sun Life Equity Advantage Fund-Direct-Growth	11.0352
	SD of the Benchmark	10.0025

Table 4: Risk Return Grid of Mutual Funds Schemes compared to Nifty50.

S.No	Category 1 LOW RETURN, LOW RISK	Category 2 HIGH RETURN, LOW RISK
1	Axis Dynamic Equity Fund-Direct-Growth	ICICI Prudential Focused Equity Fund-Direct- Growth
2	HDFC Equity Savings Fund-Direct-Growth	Canara Robeco Bluechip Equity Fund-Direct- Growth
3	Axis Equity Saver Fund-Direct-Growth	Axis Long Term Equity Fund-Direct-Growth
4	Mirae Asset Equity Savings Fund-Direct-Growth	SBI Focused Equity Fund-Direct-Growth
5	SBI Equity Savings Fund-Direct-Growth	HDFC Retirement Savings Fund-Equity Plan-Direct plan
6	L&T Equity Savings Fund-Direct-Growth	Aditya Birla Sun Life Focussed Equity Fund-Direct-Growth
7	DSP Equity Savings Fund-Direct Growth	UTI Equity Fund-Direct-Growth
8	L&T Focused Equity Fund-Direct-Growth	SBI Focused Equity Fund-Direct-Growth
9	SBI Magnum Equity ESG Fund-Direct-Growth	UTI Long Term Equity Fund (Tax Saving)-Direct-Growth
10	ICICI Prudential Retirement Fund-Pure Equity- Direct Growth	DSP Equity Fund-Direct-Growth
11	L&T Equity Fund-Direct-Growth	
S.No	Category 3 HIGH RETURN, HIGH RISK	Category 4 LOW RETURN, HIGH RISK
1	Aditya Birla Sun Life Frontline Equity Fund-Direct Growth	ICICI Prudential Long Term Equity Fund (Tax Saving)-Direct-Growth
2	Franklin India Equity Fund-Direct-Growth	DSP Top 100 Equity Fund-Direct-Growth
3	DSP Equity Opportunities Fund-Direct-Growth	HDFC Equity Fund-Direct-Growth
4	Aditya Birla Sun Life Equity Fund-Direct- Growth	UTI Core Equity Fund-Direct-Growth
5		
6	Aditya Birla Sun Life Equity Advantage Fund- Direct-Growth	

RISK RETURN GRID: A ONE-VIEW GLIMPSE

Now in order to make the above analysis simple and to provide one view glimpse of how the fund have provided returns and how they have deviated, the following is the risk return grid where in all the schemes have been divided under 4 broad categories-

Category-1 Low Return Low Risk

This category consists of schemes whose average returns as well as standard deviation are lower than the benchmark.

Category-2 High Return Low Risk

This category consists of schemes whose average returns are higher than the market while the standard deviation is lower than that. Actually, this is the prime moto of any mutual fund house and this category suggests those mutual funds schemes that have succeeded in that.

Category-3 High Return High Risk

This category consists of those schemes whose average returns as well as the standard deviation are higher than the market indexed.

Category-4 Low Return High Risk

Here those schemes are listed whose average monthly returns are lower than the market while the standard deviation is higher than that. This is absolutely against the prime moto of any mutual fund house.

Table-4 presents the risk return grid of the selected mutual fund schemes. After the classification, it was found that 11 schemes fall under the Category-1, 10 schemes fall under the Category-2, 5 schemes under Category-3, while 4 schemes under Category-4. These 10 schemes that fall under the category 2 actually fulfilled the basic objective of mutual funds as compared to the capital market while those 4 schemes under Category-4 went opposite the objective [11-13].

Table-5 shows rank wise listed schemes in the terms of beta. Beta is a measure of systematic risk. If a scheme has beta greater than one, then that scheme or fund is considered as riskier than the market. On the other hand, if a scheme has beta less than one then it is concluded that the fund is less risky than the market. So, from this interpretation we can observe from Table-5 that out of all the selected schemes, 21 schemes have proved more or less a better beta, i.e., less than one. Axis Dynamic Equity and HDFC equity savings are the best performers in this parameter, although these top performers in this category had not performed well as per AMR. In other words, top-seven funds under this parameter have actually reduced the systematic risk to half or even lower than the benchmark.

Table-6 shows the Sharpe ratio of all the selected schemes. Sharpe ratio is the *Reward to Variability Ratio*, which is calculated as the excess return earned over a risk-free rate for one unit of total risk involved. It was developed by *William Forsyth Sharpe*, an American Economist in the year 1966. The Sharpe greater than 3 is considered as excellent and greater than 2 is good. The Sharpe greater than 1 but less than 2 is generally not acceptable while the Sharpe of less than 1 is considered bad.

Now as the Table-6 shows the Sharpe ratio of all the selected schemes is less than one which is not a good measure. UTI equity

Table 5: Beta.

Rank	Scheme	Beta
1	Axis Dynamic Equity Fund-Direct-Growth	0.3739
2	HDFC Equity Savings Fund-Direct-Growth	0.4160
3	Axis Equity Saver Fund-Direct-Growth	0.4245
4	Mirae Asset Equity Savings Fund-Direct-Growth	0.4579
5	L&T Equity Savings Fund-Direct-Growth	0.4639
6	SBI Equity Savings Fund-Direct-Growth	0.4781
7	DSP Equity Savings Fund-Direct-Growth	0.5120
8	L&T Focused Equity Fund-Direct-Growth	0.7704
9	ICICI Prudential Focused Equity Fund-Direct-Growth	0.7984
10	Canara Robeco Bluechip Equity Fund-Direct-Growth	0.8376
11	Axis Long Term Equity Fund-Direct-Growth	0.8588
12	SBI Focused Equity Fund-Direct-Growth	0.8674
13	HDFC Retirement Savings Fund-Equity Plan-Direct Plan	0.9546
14	UTI Equity Fund-Direct-Growth	0.9610
15	DSP Equity Fund-Direct-Growth	0.9623
16	ICICI Prudential Retirement Fund-Pure Equity-Direct-Growth	0.9730
17	Aditya Birla Sun Life Focussed Equity Fund-Direct-Growth	0.9745
18	SBI Focused Equity Fund-Direct-Growth	0.9752
19	UTI Long Term Equity Fund (Tax Saving)-Direct-Growth	0.9756
20	SBI Magnum Equity ESG Fund-Direct-Growth	0.9801
21	L&T Equity Fund-Direct-Growth	0.9812
22	Aditya Birla Sun Life Frontline Equity Fund-Direct-Growth	1.0024
23	ICICI Prudential Long Term Equity Fund (Tax Saving)-Direct-Growth	1.0201
24	Franklin India Equity Fund-Direct-Growth	1.0263
25	DSP Equity Opportunities Fund-Direct-Growth	1.0353
26	DSP Top 100 Equity Fund-Direct-Growth	1.0474
27	Aditya Birla Sun Life Equity Fund-Direct-Growth	1.0630
28	HDFC Equity Fund-Direct-Growth	1.0658
29	Aditya Birla Sun Life Equity Advantage Fund-Direct-Growth	1.0695
30	UTI Core Equity Fund-Direct-Growth	1.0868
Beta of the Benchmark		1

fund performed the best in terms of Sharpe ratio followed by ICICI Prudential focused equity and Canara Robeco bluechip equity, while the performance of HDFC equity fund, DSP top 100 equity fund and DSP equity savings fund was the lowest among the selected schemes. The Sharpe ratio of the market index was calculated 0.1148 and thus we see that 20 out of 30 schemes, surpassed the market and provided, more or less, higher Sharpe than the benchmark index.

Table-7 shows the calculated Treynor ratio of all the selected schemes. Treynor ratio is the *Reward to Volatility ratio* and is calculated as excess return earned over the risk-free rate per unit of systematic risk, i.e., Beta. It was propounded first in the year 1965 by Jack Lawrence Treynor, an American Economist. Under this parameter, UTI equity fund came to the best followed by ICICI Prudential focused equity and Canara Robeco blue-chip equity. These three schemes had Treynor more than 2. While HDFC

Table 6: Sharpe.

Rank	Scheme	Sharpe
1	UTI Equity Fund-Direct-Growth	0.2383
2	ICICI Prudential Focused Equity Fund-Direct-Growth	0.2100
3	Canara Robeco Bluechip Equity Fund-Direct-Growth	0.2008
4	Axis Long Term Equity Fund-Direct-Growth	0.1709
5	Mirae Asset Equity Savings Fund-Direct-Growth	0.1619
6	UTI Long Term Equity Fund (Tax Saving)-Direct-Growth	0.1614
7	DSP Equity Fund-Direct-Growth	0.1536
8	HDFC Retirement Savings Fund-Equity Plan-Direct Plan	0.1509
9	SBI Focused Equity Fund-Direct-Growth	0.1480
10	Aditya Birla Sun Life Equity Advantage Fund-Direct-Growth	0.1456
11	Axis Equity Saver Fund-Direct-Growth	0.1396
12	Aditya Birla Sun Life Equity Fund-Direct-Growth	0.1319
13	Franklin India Equity Fund-Direct-Growth	0.1279
14	SBI Equity Savings Fund-Direct-Growth	0.1263
15	SBI Focused Equity Fund-Direct-Growth	0.1254
16	Axis Dynamic Equity Fund-Direct-Growth	0.1222
17	Aditya Birla Sun Life Focussed Equity Fund-Direct-Growth	0.1221
18	L&T Focused Equity Fund-Direct-Growth	0.1192
19	DSP Equity Opportunities Fund-Direct-Growth	0.1179
20	Aditya Birla Sun Life Frontline Equity Fund-Direct-Growth	0.1160
21	SBI Magnum Equity ESG Fund-Direct-Growth	0.1134
22	L&T Equity Savings Fund-Direct-Growth	0.1109
23	ICICI Prudential Long Term Equity Fund (Tax Saving)-Direct-Growth	0.1103
24	L&T Equity Fund-Direct-Growth	0.1089
25	UTI Core Equity Fund-Direct-Growth	0.1028
26	ICICI Prudential Retirement Fund-Pure Equity-Direct-Growth	0.0982
27	HDFC Equity Savings Fund-Direct-Growth	0.0776
28	DSP Equity Savings Fund-Direct-Growth	0.0715
29	DSP Top 100 Equity Fund-Direct-Growth	0.0712
30	HDFC Equity Fund-Direct-Growth	0.0566
	Sharpe of the Benchmark	0.1148

equity fund came to the bottom [14]. 21 schemes have Treynor, more or less, better than the benchmark. Higher Treynor ratio as compared to the market indicates that investor who has invested in a mutual fund to form well diversified portfolio did receive adequate return per unit of systematic risk undertaken.

Table-8 shows the measure of Jensen Alpha. The higher positive value of Alpha indicates the better performance of the fund. It is the regression of excess return of the schemes with excess return of the market acting as dependent and independent variables respectively. It was developed by Michael Jensen, an American Economist in the year 1968. Alpha decodes good market timing ability of fund managers as regard investment in the securities. Here also UTI equity fund shows the highest value of alpha, followed by ICICI prudential and Canara Robeco. Among all the 30 selected schemes, 9 schemes showed the negative Alpha which means that

Table 7: Treynor.

Rank	Scheme	Treynor
1	UTI Equity Fund-Direct-Growth	2.4346
2	ICICI Prudential Focused Equity Fund-Direct-Growth	2.1852
3	Canara Robeco Bluechip Equity Fund-Direct-Growth	2.0224
4	Axis Long Term Equity Fund-Direct-Growth	1.7702
5	UTI Long Term Equity Fund (Tax Saving)-Direct-Growth	1.6386
6	Mirae Asset Equity Savings Fund-Direct-Growth	1.6349
7	DSP Equity Fund-Direct-Growth	1.5919
8	HDFC Retirement Savings Fund-Equity Plan-Direct Plan	1.5377
9	Aditya Birla Sun Life Equity Advantage Fund-Direct-Growth	1.5019
10	SBI Focused Equity Fund-Direct-Growth	1.4980
11	Axis Equity Saver Fund-Direct-Growth	1.4300
12	Aditya Birla Sun Life Equity Fund-Direct-Growth	1.3369
13	SBI Focused Equity Fund-Direct-Growth	1.3236
14	Franklin India Equity Fund-Direct-Growth	1.3058
15	SBI Equity Savings Fund-Direct-Growth	1.2695
16	Axis Dynamic Equity Fund-Direct-Growth	1.2624
17	L&T Focused Equity Fund-Direct-Growth	1.2316
18	Aditya Birla Sun Life Focussed Equity Fund-Direct-Growth	1.2268
19	DSP Equity Opportunities Fund-Direct-Growth	1.2008
20	Aditya Birla Sun Life Frontline Equity Fund-Direct-Growth	1.1630
21	L&T Equity Savings Fund-Direct-Growth	1.1545
22	SBI Magnum Equity ESG Fund-Direct-Growth	1.1405
23	ICICI Prudential Long Term Equity Fund (Tax Saving)-Direct-Growth	1.1154
24	L&T Equity Fund-Direct-Growth	1.1024
25	UTI Core Equity Fund-Direct-Growth	1.0424
26	ICICI Prudential Retirement Fund-Pure Equity-Direct-Growth	0.9948
27	HDFC Equity Savings Fund-Direct-Growth	0.7963
28	DSP Equity Savings Fund-Direct-Growth	0.7400
29	DSP Top 100 Equity Fund-Direct-Growth	0.7185
30	HDFC Equity Fund-Direct-Growth	0.5762
	Treynor of the Benchmark	1.1479

their fund managers were not able to earn enough returns for the amount of risk taken. Since the alpha of benchmark remains 0, top-4 funds under this category reported a significantly higher alpha.

Table-9 shows the M2 measure of all the selected schemes. The Modigliani Risk-Adjusted Performance (RAP) (M^2 or Modigliani-Modigliani) measure was developed by Nobel Laureate Franco Modigliani along with his granddaughter Leah Modigliani (that's why it is called M2) in the year 1997. This measure depicts the risk adjusted return of the portfolio. It is an extension of Sharpe ratio and makes it more intuitive to interpret. M2 is calculated by multiplying Sharpe with standard deviation and then adding risk-free rate.

Under this parameter also, UTI equity fund performed the best, followed by ICICI Prudential focused equity and Canara Robeco blue chip equity fund, while HDFC equity fund's performance again came at the bottom among the selected sample. M2 of the benchmark came 1.6479 and thus we can say that 20 out of 30 schemes outperformed the market index by more or less margin.

Table 8: Jensen Alpha.

Rank	Scheme	Alpha
1	UTI Equity Fund-Direct-Growth	1.2364
2	ICICI Prudential Focused Equity Fund-Direct-Growth	0.8281
3	Canara Robeco Bluechip Equity Fund-Direct-Growth	0.7324
4	Axis Long Term Equity Fund-Direct-Growth	0.5344
5	UTI Long Term Equity Fund (Tax Saving)-Direct-Growth	0.4786
6	DSP Equity Fund-Direct-Growth	0.4272
7	Aditya Birla Sun Life Equity Advantage Fund-Direct-Growth	0.3785
8	HDFC Retirement Savings Fund-Equity Plan-Direct Plan	0.3720
9	SBI Focused Equity Fund-Direct-Growth	0.3413
10	Mirae Asset Equity Savings Fund-Direct-Growth	0.2230
11	Aditya Birla Sun Life Equity Fund-Direct-Growth	0.2008
12	Franklin India Equity Fund-Direct-Growth	0.1619
13	SBI Focused Equity Fund-Direct-Growth	0.1523
14	Axis Equity Saver Fund-Direct-Growth	0.1197
15	Aditya Birla Sun Life Focussed Equity Fund-Direct-Growth	0.0768
16	L&T Focused Equity Fund-Direct-Growth	0.0644
17	SBI Equity Savings Fund-Direct-Growth	0.0581
18	DSP Equity Opportunities Fund-Direct-Growth	0.0547
19	Axis Dynamic Equity Fund-Direct-Growth	0.0428
20	Aditya Birla Sun Life Frontline Equity Fund-Direct-Growth	0.0150
21	L&T Equity Savings Fund-Direct-Growth	0.0030
22	SBI Magnum Equity ESG Fund-Direct-Growth	-0.0073
23	ICICI Prudential Long Term Equity Fund (Tax Saving)-Direct-Growth	-0.0333
24	L&T Equity Fund-Direct-Growth	-0.0447
25	UTI Core Equity Fund-Direct-Growth	-0.1148
26	HDFC Equity Savings Fund-Direct-Growth	-0.1463
27	ICICI Prudential Retirement Fund-Pure Equity-Direct-Growth	-0.1490
28	DSP Equity Savings Fund-Direct-Growth	-0.2089
29	DSP Top 100 Equity Fund-Direct-Growth	-0.4499
30	HDFC Equity Fund-Direct-Growth	-0.6093
Alpha of the Benchmark		0

Table-9: Modigliani Risk Adjusted Measure (M2).

Rank	Scheme	M2
1	UTI Equity Fund-Direct-Growth	2.8832
2	ICICI Prudential Focused Equity Fund-Direct-Growth	2.6003
3	Canara Robeco Bluechip Equity Fund-Direct-Growth	2.5081
4	Axis Long Term Equity Fund-Direct-Growth	2.2092
5	Mirae Asset Equity Savings Fund-Direct-Growth	2.1194
6	UTI Long Term Equity Fund (Tax Saving)-Direct-Growth	2.1148
7	DSP Equity Fund-Direct-Growth	2.0363
8	HDFC Retirement Savings Fund-Equity Plan-Direct Plan	2.0090
9	SBI Focused Equity Fund-Direct-Growth	1.9802
10	Aditya Birla Sun Life Equity Advantage Fund-Direct-Growth	1.9560
11	Axis Equity Saver Fund-Direct-Growth	1.8967
12	Aditya Birla Sun Life Equity Fund-Direct-Growth	1.8191
13	Franklin India Equity Fund-Direct-Growth	1.7794
14	SBI Equity Savings Fund-Direct-Growth	1.7637
15	SBI Focused Equity Fund-Direct-Growth	1.7539
16	Axis Dynamic Equity Fund-Direct-Growth	1.7227
17	Aditya Birla Sun Life Focussed Equity Fund-Direct-Growth	1.7214
18	L&T Focused Equity Fund-Direct-Growth	1.6918
19	DSP Equity Opportunities Fund-Direct-Growth	1.6789
20	Aditya Birla Sun Life Frontline Equity Fund-Direct-Growth	1.6604
21	SBI Magnum Equity ESG Fund-Direct-Growth	1.6347
22	L&T Equity Savings Fund-Direct-Growth	1.6096
23	ICICI Prudential Long Term Equity Fund (Tax Saving)-Direct-Growth	1.6029
24	L&T Equity Fund-Direct-Growth	1.5894
25	UTI Core Equity Fund-Direct-Growth	1.5285
26	ICICI Prudential Retirement Fund-Pure Equity-Direct-Growth	1.4818
27	HDFC Equity Savings Fund-Direct-Growth	1.2761
28	DSP Equity Savings Fund-Direct-Growth	1.2157
29	DSP Top 100 Equity Fund-Direct-Growth	1.2117
30	HDFC Equity Fund-Direct-Growth	1.0661
M2 of the Benchmark		1.6479

Table 10 shows the overall result of all the analysis performed. It ranks all the schemes from 1 to 30. All the schemes have been ranked firstly on the grounds of all the seven parameters used, i.e., Average Monthly Return (AMR), Standard Deviation (SD), Beta, Sharpe Ratio, Treynor Ratio, Jensen Alpha and M2. A scheme which stood at first position in any of the parameter was given the marks 30. For coming second in the same parameter, it was given 29 and for third position 28 and so on. The scheme that came at 30th position in a parameter was given 1 mark. The same procedure is followed in all the seven parameters. Then for every scheme its total marks in all the seven parameters were calculated and thus final marks has been drawn. The scheme that got highest final marks was given the Final rank 1 and a scheme with the lowest final marks was given the overall rank 30. In this way all the selected 30 equity mutual fund schemes have been ranked from 1 to 30. In the case of a tie where two or more schemes got the same final marks, the ranking has been done on the basis of its average

monthly returns. If the return is higher the scheme is given higher rank than the scheme having same final marks [15].

CONCLUSION

The entire conducted analysis can be bifurcated under two broad heads- Risk analysis on the basis of SD and Beta, and Return analysis on the basis of AMR, Sharpe, Treynor, Alpha and M2. SD shows that there are very few schemes among the given sample that had SD higher than the benchmark. Top-20 schemes under SD analysis have been more or less, successful in lowering down the risk in comparison to the entire market, as their SD was much below than the market index. On the parameter of average monthly returns, UTI equity fund performed the best followed by ICICI prudential focused equity. Although UTI equity fund came at first position in the terms of average monthly returns, Sharpe, Treynor, Jensen Alpha and M2; the overall final rank 1 is awarded to ICICI prudential focused equity, for the reason UTI equity fund did not

Table 10: Overall Rankings of the Selected Schemes.

Final Rank	Scheme	AMR	SD	Sharpe	Treynor	Alpha	M2	Final Marks
1	ICICI Prudential Focused Equity Fund- Direct-Growth	2	9	2	2	2	2	189
2	UTI Equity Fund-Direct- Growth	1	15	1	1	1	1	183
3	Canara Robeco Bluechip Equity Fund- Direct-Growth	3	10	3	3	3	3	182
4	Axis Long Term Equity Fund-Direct-Growth	7	11	4	4	4	4	172
5	Mirae Asset Equity Savings Fund-Direct-Growth	23	4	5	6	10	5	160
6	UTI Long Term Equity Fund (Tax Saving)-Direct-Growth	5	19	6	5	5	6	152
7	HDFC Retirement Savings Fund-Equity Plan- Direct Plan	8	13	8	8	8	8	151
8	DSP Equity Fund-Direct-Growth	6	21	7	7	6	7	148
10	SBI Long Term Equity Fund-Direct-Growth	9	18	9	10	9	9	135
11	SBI Focused Equity Fund- Direct-Growth	15	12	15	13	13	15	122
12	SBI Equity Savings Fund-Direct-Growth Direct-Growth	26	5	14	15	17	14	120
13	Axis Dynamic Equity Fund- Direct-Growth	28	1	16	16	19	16	120
14	Aditya Birla Sun Life Equity Advantage Fund-Direct- Growth	4	30	10	9	7	10	118
15	L&T Focused Equity Fund- Direct-Growth	21	8	18	17	16	18	111
16	Aditya Birla Sun Life Equity Fund-Direct- Growth	10	27	12	12	11	12	106
17	Franklin India Equity Fund- Direct-Growth	11	24	13	14	12	13	106
18	Aditya Birla Sun Life Focussed Equity Fund-	13	14	17	18	15	17	106
19	L&T Equity Savings Fund- Direct-Growth	27	6	22	21	21	22	93
20	DSP Equity Opportunities Fund-Direct-Growth	12	25	19	19	18	19	80
21	Aditya Birla Sun Life Frontline Equity Fund- Direct-Growth	14	22	20	20	20	20	79
22	SBI Magnum Equity ESG Fund-Direct-Growth	18	16	21	22	22	21	77
23	HDFC Equity Savings Fund- Direct-Growth	30	2	27	27	26	27	76
24	ICICI Prudential Long Term Equity Fund (Tax Saving)- Direct-Growth	16	23	23	23	23	23	63
25	DSP Equity Savings Fund- Direct-Growth	29	7	28	28	28	28	62
26	L&T Equity Fund-Direct- Growth	19	20	24	24	24	24	61
27	ICICI Prudential Retirement Fund-Pure Equity-Direct-Growth	20	17	26	26	27	26	59
28	UTI Core Equity Fund-	17	29	25	25	25	25	41
29	DSP Top 100 Equity Fund- Direct-Growth	22	26	29	29	29	29	27
30	HDFC Equity Fund-Direct- Growth	24	28	30	30	30	30	17

perform well in terms of risk whereas ICICI prudential focused equity performed better than UTI equity in terms of risk. In the terms of standard deviation which is a measure of total risk, UTI equity came at 15th rank while ICICI prudential focused equity stood at 9th rank. Rank 1 in terms of standard deviation and beta was received by Axis dynamic equity fund but its return was much disappointing and it stood at the bottom at 28th position. So, it can also be inferred that the scheme which received highest rank in terms of monthly returns did not perform well in terms of risk, whereas those schemes which performed good in terms of standard deviation and beta (risk) did not perform well in terms of average monthly returns. There are very few schemes that have remained moderate in both the parameters. The funds like HDFC equity, DSP Top100 and UTI Core equity were the least performers among the selected sample according to the above analysis. They had higher risk exposure and very disappointing returns.

Overall, we can conclude that the funds which gave high returns were mostly not consistent, and those who were consistent and had lesser deviations couldn't provide attractive returns in this period. "Mutual fund investments are subjected to market risk..." therefore, it cannot be said for any fund that it had protected the returns on the corpus, as the Covid period was definitely not good for any economy or any stock exchange of the globe and the dent in the

economy was felt during the mid of 2020. But today when we have come over and moved on in the era of 2021 the analysis of equity mutual fund schemes gives us a better idea to plan our investments in the future.

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