

RISK RETURN ANALYSIS OF EQUITY GROWTH FUNDS

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ABSTRACT

The case study was conducted with the objective to undertake the risk return analysis of open ended short term equity Mutual Funds for the period April 2015 to March 2018. The study was based on the secondary data such as monthly NAV's of different schemes, monthly index of BSE index, monthly rates of 364 days Treasury bill which was collected from different sites like www.valueresearchonline.com, www.amfiindia.com, www.bseindia.com and www.rbi.org. Mutual Funds are broadly classified into open ended and close ended based on their structure. From this, open ended funds were selected, because they are flexible and highly liquid, they invest in things that allow them to quickly sell and receive cash from the sale of the securities SBI IT Fund-Direct Plan-Growth, SBI Small and Midcap Fund-Direct Plan-Growth and ICICI Prudential Technology Fund-Direct Plan-Growth were selected based on the performance. Return analysis of mutual fund is carried out by using NAV and compared with market return and portfolio return. There are five main indicators of investment risk that apply to the analysis of Mutual Fund portfolio. They are Standard Deviation, Beta, Sharpe Ratio, Jensen's Measure (Alpha) and Treynor's Ratio. From the risk return analysis of three selected open ended diversified growth equity funds it found that all the funds perform better than the market where as their return is higher than the risk free return. The selected three funds shows a positive alpha value. From the study it is revealed that SBI Small and Midcap Fund-Direct Plan-Growth performs better than the other two funds SBI IT Fund-Direct Plan-Growth and ICICI Prudential Technology Fund-Direct Plan-Growth. On an overall analysis we can conclude that investment in these selected diversified equity growth funds is a better option than investing in the treasury bills.

KEYWORDS: *Mutual Funds, Risk Analysis, Return Analysis, Open Ended*

Article History

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INTRODUCTION

Case Analysis

Mutual Fund is an investment company that pools money from small investors and invest in a variety of securities such as Stocks, Bonds and Money Market Instruments to meet the funds stated investment objective. It works on the principle of collective management and is expected to provide the benefit of diversification and professional management. The ultimate objective of Mutual Fund is to enhance investor's participation in the capital market and provide sufficient return and liquidity to their investments. It is an investment avenue designed primarily for the investors having small and infrequent savings.

Open Ended Diversified Equity Growth Funds

A well-diversified equity fund commonly referred to simply as a diversified equity fund invests in companies regardless of whether they are large caps or mid-caps or small caps. A diversified equity fund invests in companies regardless of size

and sector. It diversifies investments across the stock market in a bid to maximize gains for investors. They are offered by unit linked insurance plans and other investment firms. A diversified equity fund invests in companies across sectors and industries. This way it can participate in growth across the economy and is not tied down to a particular sector or industry. For an investor with appetite for equities and long term goals like retirement planning, saving for child's marriage, diversified equity funds either standalone basis or in a portfolio with other investments can prove useful.

OBJECTIVE OF THE STUDY

To undertake the risk return analysis of open ended short term equity Mutual Funds for the period April 2015 to March 2018.

METHODOLOGY OF THE STUDY

The study was based on the secondary data such as:

- Monthly NAV's of different schemes.
- Monthly index of BSE index
- Monthly rates of 364 days Treasury bill

Which was Collected from different sites like, www.valueresearchonline.com, www.amfindia.com, www.bseindia.com and www.rbi.org. All the schemes were analyzed with respect to their risk and return using standard deviation, Beta, Sharpe ratio, Trainer's measure and Jensen's measure (Alpha).

Mutual Funds are broadly classified into open ended and close ended based on their structure. From this, open ended funds were selected, because they are flexible and highly liquid, they invest in things that allow them to quickly sell and receive cash from the sale of the securities. This allows the open ended fund to redeem shares and pay the proceeds to the investor within seven days. Based on the investment objective short term equity funds are selected.

The funds selected were:

Table 1

Sl. No	Name of Funds
1	SBI IT Fund-Direct Plan-Growth
2	SBI Small and Midcap Fund-Direct Plan-Growth
3	ICICI Prudential Technology Fund-Direct Plan-Growth

ANALYSIS OF RISK AND RETURN

In India there are many Mutual Funds and also investment companies operating both in the public sector as well as in the private sector. These funds compete with each other for mobilizing investments, with individual investors and other organization by offering attractive return, minimum risk, high safety and prompt liquidity. Investors and organization desirous of placing their funds with these Mutual Funds would like to know the comparative performance of each, so as to select the best Mutual Fund / investment company. For this, evaluation of the performance of the Mutual Funds and their portfolio becomes necessary.

Return on Funds

While evaluating the performance of a portfolio return, the portfolio has to be evaluated in the context of risk associated with that portfolio. Performance evaluation starts with the measurement of return on the fund. The return can be primarily

in terms of NAV. NAV is defined as current market value of a fund's holding less the fund's liability, usually expressed as a per unit amount. For most of the funds, NAV is determined on daily basis.

Return on Selected Open Ended Equity Mutual Fund Schemes

Table 2: SBI IT Fund-Direct Plan-Growth

Month	Opening NAV	Closing NAV	Rp	Growth
15 April	47.9813	44.0087	-0.0828	-8.27948
15 May	44.8264	45.6267	0.0179	1.785332
15 June	45.5182	44.227	-0.0284	-2.83667
15 July	44.8476	46.5469	0.0379	3.789054
15 August	46.3814	45.9105	-0.0102	-1.01528
15 September	45.3219	47.0014	0.0371	3.705714
15 October	46.8094	47.0556	0.0053	0.525963
15 November	47.2	46.1223	-0.0228	-2.28326
15 December	46.2768	46.5976	0.0069	0.69322
16 January	46.5455	45.8993	-0.0139	-1.38832
16 February	45.9266	42.1871	-0.0814	-8.14234
16 March	43.695	46.8802	0.0729	7.289621
16 April	46.4341	46.199	-0.0051	-0.50631
16 May	46.0387	46.9946	0.0208	2.076297
16 June	47.3074	45.7256	-0.0334	-3.34366
16 July	45.6015	46.7016	0.0241	2.412421
16 August	48.2527	45.8676	-0.0494	-4.94294
16 September	45.801	44.776	-0.0224	-2.23794
16 October	45.0492	44.3438	-0.0157	-1.56584
16 November	44.2566	43.8217	-0.0098	-0.98268
16 December	43.6073	45.0589	0.0333	3.3288
17 January	44.8873	42.6455	-0.0499	-4.99429
17 February	42.2523	45.7574	0.0830	8.295643
17 March	45.9801	45.1855	-0.0173	-1.72814
17 April	44.7786	42.9722	-0.0403	-4.03407
17 May	43.2314	44.3472	0.0258	2.580994
17 June	44.6352	43.9296	-0.0158	-1.58082
17 July	44.1089	45.4165	0.0296	2.964481
17 August	45.4165	44.0795	-0.0294	-2.94386
17 September	44.0886	44.9488	0.0195	1.951071
17 October	45.1257	46.2021	0.0239	2.385337
17 November	46.3043	48.3934	0.0451	4.511676
17 December	47.9009	50.9202	0.0630	6.303222
18 January	50.6037	56.3091	0.1127	11.27467
18 February	56.3122	57.0089	0.0124	1.23721
18 March	56.6421	55.7269	-0.0162	-1.61576
		Total	0.1269	12.6891
		Average	0.0035	0.3525

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Table 3: SBI Small and Midcap Fund-Direct Plan-Growth

Month	Opening NAV	Closing NAV	Rp	Growth
15 April	29.2274	29.5381	0.01063	1.063
15 May	29.9785	29.8706	-0.0036	-0.36
15 June	29.6488	30.439	0.026652	2.6652
15 July	30.7356	32.8826	0.069854	6.9854
15 August	33.0719	31.1758	-0.05733	-5.733
15 September	30.616	31.1101	0.016139	1.6139
15 October	31.192	32.2753	0.03473	3.473

Table 3 Contd.,

15 November	32.0454	32.5617	0.016112	1.6112
15 December	32.5592	34.6508	0.06424	6.424
16 January	34.9597	31.4946	-0.09912	-9.912
16 February	31.4946	28.7975	-0.08564	-8.564
16 March	29.5365	31.268	0.058622	5.8622
16 April	31.5066	32.9381	0.045435	4.5435
16 May	32.8515	32.5479	-0.00924	-0.924
16 June	32.5707	33.9484	0.042299	4.2299
16 July	34.0781	35.4842	0.041261	4.1261
16 August	35.1144	36.4877	0.039109	3.9109
16 September	36.0826	37.1177	0.028687	2.8687
16 October	37.846	39.3768	0.040448	4.0448
16 November	39.9478	36.6136	-0.08346	-8.346
16 December	36.5725	35.0975	-0.04033	-4.033
17 January	35.3644	37.481	0.059851	5.9851
17 February	37.8112	39.0909	0.033844	3.3844
17 March	39.4158	40.8611	0.036668	3.6668
17 April	41.3329	42.9349	0.038758	3.8758
17 May	42.8162	42.4850	-0.00774	-0.774
17 June	42.5070	44.1490	0.038629	3.8629
17 July	44.8484	46.3077	0.032539	3.2539
17 August	46.4634	46.7397	0.005947	0.5947
17 September	47.2106	49.3745	0.045835	4.5835
17 October	49.7113	52.6104	0.058319	5.8319
17 November	53.0440	58.7660	0.107873	10.7873
17 December	58.3337	62.7059	0.074952	7.4952
18 January	62.7379	61.4367	-0.02074	-2.074
18 February	61.2348	58.9368	-0.03753	-3.753
18 March	58.8727	54.9309	-0.06695	-6.695
Total			0.555752	55.5752
Average			0.015438	1.5438

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Table 4: ICICI Prudential Technology Fund-Direct Plan-Growth

Month	Opening NAV	Closing NAV	Rp	Growth
15 April	41.37	38.35	-0.073	-7.3
15 May	38.84	40.98	0.055098	5.5098
15 June	40.85	39.21	-0.04015	-4.015
15 July	39.69	42.3	0.06576	6.576
15 August	42.16	42.75	0.013994	1.3994
15 September	42.36	43.67	0.030925	3.0925
15 October	43.30	43.19	-0.00254	-0.254
15 November	43.24	42.22	-0.02359	-2.359
15 December	42.30	42.26	-0.00095	-0.095
16 January	42.27	42.25	-0.00047	-0.047
16 February	42.48	38.69	-0.08922	-8.922
16 March	40.05	42.79	0.068414	6.8414
16 April	42.55	42.70	0.003525	0.3525
16 May	42.52	42.99	0.011054	1.1054
16 June	43.41	42.76	-0.01497	-1.497
16 July	42.64	41.10	-0.03612	-3.612
16 August	41.40	40.15	-0.03019	-3.019
16 September	40.04	39.36	-0.01698	-1.698
16 October	39.75	39.15	-0.01509	-1.509
16 November	39.19	39.85	0.016841	1.6841

Table 4 Contd.,

16 December	39.68	40.92	0.03125	3.125
17 January	40.77	38.86	-0.04685	-4.685
17 February	38.69	41.66	0.076764	7.6764
17 March	41.86	41.56	-0.00717	-0.717
17 April	41.23	40.32	-0.02207	-2.207
17 May	40.55	41.68	0.027867	2.7867
17 June	41.97	41.05	-0.02192	-2.192
17 July	41.16	42.34	0.028669	2.8669
17 August	42.55	41.58	-0.0228	-2.28
17 September	41.62	42.07	0.010812	1.0812
17 October	42.38	43.23	0.020057	2.0057
17 November	43.25	46.71	0.08	8
17 December	46.21	49.37	0.068383	6.8383
18 January	49.20	53.48	0.086992	8.6992
18 February	53.40	54.19	0.014794	1.4794
18 March	53.71	52.68	-0.01918	-1.918
Total			0.227945	22.7945
Average			0.006332	0.6332

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Portfolio Return

Table 5: Average Monthly Return of the Open Ended Equity Growth Funds

Sl. No.	Name of the Schemes	Portfolio Return (Average Monthly Return)
1	SBI IT Fund-Direct Plan-Growth	0.3525
2	SBI Small and Midcap Fund-Direct Plan-Growth	1.5438
3	ICICI Prudential Technology Fund-Direct Plan-Growth	0.6332

Market Return

The benchmark indices selected are S&P BSE IT TRI and S&P BSE Small Cap. The opening and closing index were obtained from the website of Bombay Stock Exchange (BSE). The benchmark returns of the selected funds are,

Table 6: Benchmark Returns of the Selected Open Ended Equity Growth Funds

Sl. No.	Name of the Schemes	Benchmark Index
1	SBI IT Fund-Direct Plan-Growth	S&P BSE IT TRI
2	SBI Small and Midcap Fund-Direct Plan-Growth	S&P BSE Small Cap
3	ICICI Prudential Technology Fund-Direct Plan-Growth	S&P BSE IT TRI

Table 7: S & P BSE IT TRI

Sl. No.	Opening Index	Closing Index	Rm	Growth Rate
15 April	11,374.04	10410.98	-0.0847	-8.4672
15 May	10485.56	10910.45	0.0405	4.0521
15 June	10919.66	10449.45	-0.0431	-4.3061
15 July	10486.14	11072.67	0.0559	5.5934
15 August	11039.17	11161.34	0.0111	1.1067
15 September	11130.09	11577.86	0.0402	4.0231
15 October	11558.56	11263.78	-0.0255	-2.5503
15 November	11244.88	10950.02	-0.0262	-2.6222
15 December	10959.47	11061.31	0.0093	0.9292
16 January	11042.57	11165.05	0.0111	1.1092
16 February	11201.02	10229.49	-0.0867	-8.6736
16 March	10296.96	11387.95	0.1060	10.5953
16 April	11376.48	11330.17	-0.0041	-0.4071
16 May	11343.41	11576.14	0.0205	2.0517

16 June	11541.11	11199.95	-0.0296	-2.9560
16 July	11247.94	10813.2	-0.0387	-3.8651
16 August	10821.96	10439.35	-0.0354	-3.5355
16 September	10457.22	10229.09	-0.0218	-2.1816
16 October	10250.25	10032.72	-0.0212	-2.1222
16 November	10058.23	9851.55	-0.0205	-2.0548
16 December	9871.07	10176.05	0.0309	3.0896
17 January	10186.09	9586.34	-0.0589	-5.8879
17 February	9542.01	10376.1	0.0874	8.7412
17 March	10391.45	10365.51	-0.0025	-0.2496
17 April	10396.59	9618.99	-0.0748	-7.4794
17 May	9674.96	10229.52	0.0573	5.7319
17 June	10179.75	9833.46	-0.0340	-3.4018
17 July	9863.02	10437.79	0.0583	5.8275
17 August	10462.93	10063.83	-0.0381	-3.8144
17 September	10036.8	9946.6	-0.0090	-0.8987
17 October	9988.19	10362.22	0.0374	3.7447
17 November	10377.86	10730.87	0.0340	3.4016
17 December	10757.42	11277.81	0.0484	4.8375
18 January	11261.94	12556.98	0.1150	11.4993
18 February	12569.99	12505.73	-0.0051	-0.5112
18 March	12505.65	12100.55	-0.0324	-3.2393
Total				7.1100
Average				0.1975

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Table 8: S & P BSE Small Cap

Sl. No.	Opening Index	Closing Index	Rm	Growth Rate
15 April	10913.15	10944.03	0.0028	0.2830
15 May	10997.3	11280.57	0.0258	2.5758
15 June	11290.75	11075.35	-0.0191	-1.9078
15 July	11091	11830.8	0.0667	6.6703
15 August	11861.4	10971.27	-0.0750	-7.5044
15 September	10942.52	11020.83	0.0072	0.7156
15 October	11054.6	11315.39	0.0236	2.3591
15 November	11328.51	11636.49	0.0272	2.7186
15 December	11656.2	11836.71	0.0155	1.5486
16 January	11845.46	10869.84	-0.0824	-8.2362
16 February	10915.75	9548.33	-0.1253	-12.5270
16 March	9558.52	10541.68	0.1029	10.2857
16 April	10551.97	11020.59	0.0444	4.4411
16 May	11022.93	11142.42	0.0108	1.0840
16 June	11159.46	11801.32	0.0575	5.7517
16 July	11823.94	12309.95	0.0411	4.1104
16 August	12355.32	12648.79	0.0238	2.3753
16 September	12664.95	12780.8	0.0091	0.9147
16 October	12829.72	13583.14	0.0587	5.8725
16 November	13595.27	12329.65	-0.0931	-9.3093
16 December	12367.77	12046.13	-0.0260	-2.6006
17 January	12082.1	12935.66	0.0706	7.0647
17 February	12952.47	13690.81	0.0570	5.7004
17 March	13723.04	14433.86	0.0518	5.1798
17 April	14466.98	15372.51	0.0626	6.2593
17 May	15420.72	15080.21	-0.0221	-2.2081
17 June	15100.8	15410.52	0.0205	2.0510
17 July	15445.42	16093.56	0.0420	4.1963

Table 8 Contd.,

17 August	16130.73	15991.63	-0.0086	-0.8623
17 September	16034.61	16113.68	0.0049	0.4931
17 October	16186.66	17600.49	0.0873	8.7345
17 November	17667.89	18228.87	0.0318	3.1751
17 December	18296.2	19230.72	0.0511	5.1077
18 January	19272.67	18716.77	-0.0288	-2.8844
18 February	18756.89	18127.93	-0.0335	-3.3532
18 March	18151.85	16994.36	-0.0638	-6.3767
			Total	41.8982
			Average	1.1638

Risk Free Return

For the purpose of calculation of Risk Free Return (Rf), 364 days of Treasury bill (2015–2018) was used.

Table 9: Risk Free Return

T-Bill rates					
Opening Date	Opening Rate	Closing Date	Closing Rate	Risk Free Return (RF)	Growth Rate
6-Apr-15	7.8498	29-Apr-15	7.9082	0.00744	0.74397
27-May-15	7.8265	27-May-15	7.8265	0.00000	0.00000
10-Jun-15	7.7683	24-Jun-15	7.7217	-0.00600	-0.59987
8-Jul-15	7.6172	22-Jul-15	7.6172	0.00000	0.00000
5-Aug-15	7.5824	19-Aug-15	7.536	-0.00612	-0.61194
2-Sep-15	7.5012	30-Sep-15	7.1663	-0.04465	-4.46462
14-Oct-15	7.1548	28-Oct-15	7.1778	0.00321	0.32146
10-Nov-15	7.2354	24-Nov-15	7.2354	0.00000	0.00000
9-Dec-15	7.247	23-Dec-15	7.247	0.00000	0.00000
6-Jan-16	7.2124	20-Jan-16	7.2124	0.00000	0.00000
3-Feb-16	7.27	17-Feb-16	7.2816	0.00160	0.15956
2-Mar-16	7.1893	30-Mar-16	7.1088	-0.01120	-1.11972
12-Apr-16	6.9022	27-Apr-16	6.9137	0.00167	0.16661
11-May-16	6.948	25-May-16	6.9595	0.00166	0.16552
8-Jun-16	6.948	22-Jun-16	6.9022	-0.00659	-0.65918
5-Jul-16	6.8106	20-Jul-16	6.7421	-0.01006	-1.00579
3-Aug-16	6.685	31-Aug-16	6.6736	-0.00171	-0.17053
14-Sep-16	6.6394	28-Sep-16	6.5824	-0.00859	-0.85851
10-Oct-16	6.4573	26-Oct-16	6.4573	0.00000	0.00000
9-Nov-16	6.3665	23-Nov-16	5.9598	-0.06388	-6.38813
7-Dec-16	6.0048	21-Dec-16	6.3438	0.05645	5.64548
4-Jan-17	6.2532	18-Jan-17	6.2532	0.00000	0.00000
1-Feb-17	6.2079	15-Feb-17	6.2985	0.01459	1.45943
1-Mar-17	6.2645	29-Mar-17	6.1401	-0.01986	-1.98579
12-Apr-17	6.2192	26-Apr-17	6.4459	0.03645	3.64516
9-May-17	6.48	24-May-17	6.4686	-0.00176	-0.17593
7-Jun-17	6.4346	21-Jun-17	6.3778	-0.00883	-0.88273
5-Jul-17	6.3778	19-Jul-17	6.2872	-0.01421	-1.42055
2-Aug-17	6.2419	30-Aug-17	6.2532	0.00181	0.18103
13-Sep-17	6.2532	27-Sep-17	6.2419	-0.00181	-0.18071
4-Oct-17	6.1966	25-Oct-17	6.2192	0.00365	0.36472
1-Nov-17	6.2419	29-Nov-17	6.2758	0.00543	0.54310
6-Dec-17	6.2532	27-Dec-17	6.4232	0.02719	2.71861
3-Jan-18	6.4914	31-Jan-18	6.5824	0.01402	1.40185
7-Feb-18	6.6508	28-Feb-18	6.6622	0.00171	0.17141
7-Mar-18	6.6622	27-Mar-18	6.4914	-0.02564	-2.56372
			Total	-0.05400	-5.39979
			Average	-0.00150	-0.14999

Returns of Selected Mutual Funds

Table 10: Return of Selected Mutual Funds

Sl. No.	Name of the Schemes	RP	RM	RF
1	SBI IT Fund-Direct Plan-Growth	0.3525	0.1975	-0.14999
2	SBI Small and Midcap Fund-Direct Plan-Growth	1.5438	1.1638	-0.14999
3	ICICI Prudential Technology Fund-Direct Plan-Growth	0.6332	0.1975	-0.14999

Risk Measurement in Mutual Funds

Risk and investment go hand in hand. To know the fund's performance apart from comparing the performance with the benchmark's, an investor should also make use of certain statistical measures that make evaluation of a Mutual Fund even more precise. Among the most commonly used ratios, there are five main indicator of investment risk that applies to the analysis of Mutual Fund portfolio. They are standard deviation, Beta, Sharpe ratio, Jensen's Measure (Alpha) and Treynor's ratio.

Standard Deviation of Selected Mutual Funds

The Table 11 shows the standard deviation of selected funds. All exhibits low standard deviation which implies that the returns of funds are less volatile. Therefore, the funds are less risky. Among these schemes, SBI Small and Midcap Fund-Direct Plan-Growth Fund has the highest standard deviation (4.9104), implies that deviation from portfolio return is more in case of this fund. It is followed by SBI IT Fund-Direct Plan-Growth Fund (4.2687) and ICICI Prudential Technology Fund-Direct Plan-Growth Fund. ICICI Prudential Technology Fund-Direct Plan-Growth Fund has the lowest standard deviation in the category which means that the fund has less deviation from portfolio return.

$$\text{Standard deviation} = \sqrt{\frac{1}{n}[(\sum y_i^2) - (\sum y_i)^2/n]}$$

Where, 'y' is the fund return & 'n' is the time period.

Table 11: Standard Deviation of Selected Mutual Funds

Sl. No.	Name of the Schemes	SD
1	SBI IT Fund-Direct Plan-Growth	4.2687
2	SBI Small and Midcap Fund-Direct Plan-Growth	4.9104
3	ICICI Prudential Technology Fund-Direct Plan-Growth	4.2271

Beta Values of Selected Funds

$$\text{Beta} = \text{Cov}(x, y) / V(x) * V(y)$$

Where, Cov (x, y) is the covariance of x, y; V(x) is the variance of x and V(y) is the variance of y.

'x' is the independent variable (Market Return) and 'y' is the dependent variable (Fund Return)

Table 12: Beta Values of Selected Funds

Sl. No.	Name of the Schemes	Beta Value
1	SBI IT Fund-Direct Plan-Growth	0.0419
2	SBI Small and Midcap Fund-Direct Plan-Growth	0.0331
3	ICICI Prudential Technology Fund-Direct Plan-Growth	0.0424

Sharpe Ratio of Selected Mutual Funds

Table 12 shows the beta value of selected funds. From the table it is clear that the beta value of all funds are lower than the market risk which implies that it is less volatile to the overall market. Highest beta value is for ICICI Prudential

Technology Fund-Direct Plan-Growth Fund (0.0424), it is followed by SBI IT Fund-Direct Plan-Growth Fund (0.0419). SBI Small and Midcap Fund-Direct Plan-Growth Fund (0.0331) have the lowest beta value which shows that the fund is actually very less sensitive to stock market movement.

Table 13 shows the Sharpe ratio of the selected Mutual Funds. From the table it is clear that all funds shows positive value which implies that return of the schemes is more than that of risk free return. So the investors can prefer the mentioned three Mutual Funds currently.

$$\text{Sharpe Ratio} = \frac{(\text{Average Portfolio Return} - \text{Average Risk Free Return})}{\text{Standard Deviation}}$$

Table 13: Sharpe Ratio of Selected Mutual Funds

Sl. No.	Name of the Schemes	Sharpe Ratio
1	SBI IT Fund-Direct Plan-Growth	0.117709
2	SBI Small and Midcap Fund-Direct Plan-Growth	0.344939
3	ICICI Prudential Technology Fund-Direct Plan-Growth	0.185278

Treynor's Ratio of Selected Mutual Funds

$$\text{Treynor's Ratio} = \frac{(\text{Average Portfolio Return} - \text{Average Risk Free Return})}{\text{Beta}}$$

Table 14: Treynor's Ratio of Selected Mutual Funds

Sl. No.	Name of the Schemes	Treynor's Ratio	Rank
1	SBI IT Fund-Direct Plan-Growth	11.991981	3
2	SBI Small and Midcap Fund-Direct Plan-Growth	51.171903	1
3	ICICI Prudential Technology Fund-Direct Plan-Growth	18.471462	2

Table 14 reveals the Treynor's measure of the selected Mutual Funds. Positive Treynor's index is an indication of favorable performance. Here all the three funds have a positive Treynor's ratio. This is because average monthly return which has no diversifiable risk per unit of market risk assumed is more than that of risk free return. Therefore, investors can opt for these three funds for investing.

Jensen's Measure of Selected Funds

Table 15 shows the Jensen's measure (alpha) of the selected Mutual Funds. From the Table 15 it is observed that all three funds have positive alpha. It means that the benchmark portfolio has performed better than the benchmark index that means the fund have earned over and above what it was expected to earn incorporating. The fund with highest alpha is SBI Small and Midcap Fund-Direct Plan-Growth Fund of 1.65 performed better. It is followed by ICICI Prudential Technology Fund-Direct Plan-Growth Fund (0.7), and SBI IT Fund-Direct Plan-Growth Fund (0.48).

$$\text{Jensen's measure} = R_p - \{R_f + \beta (R_m - R_f)\}$$

where,

R_p = Average Portfolio Return

R_f = Average Risk Free Return

R_m = Average Market Return

Table 15: Jensen's Measure of Selected Funds

Sl. No.	Name of the Schemes	Jensen's Measure (Alpha)	Rank
1	SBI IT Fund-Direct Plan-Growth	0.487930169	3
2	SBI Small and Midcap Fund-Direct Plan-Growth	1.650303551	1
3	ICICI Prudential Technology Fund-Direct Plan-Growth	0.768456424	2

CONCLUSIONS

From the risk return analysis of three selected open ended diversified growth equity funds it found that all the funds perform better than the market whereas their return is higher than the risk free return. The selected three funds show a positive alpha value. From the study it is revealed that SBI Small and Midcap Fund-Direct Plan-Growth performs better than the other two funds SBI IT Fund-Direct Plan-Growth and ICICI Prudential Technology Fund-Direct Plan-Growth. On an overall analysis we can conclude that investment in these selected diversified equity growth funds is a better option than investing in the treasury bills.

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EDUCATIONAL DETAILS

- Pursuing Ph.D. in Management studies from CUSAT, Kerala
- Pursuing Master of Business Administration from IGNOU
- Master of Science in Rural Banking and Finance Management, Kerala Agricultural University and secured 95.10% in 2014
- Bachelor of Science with Cooperation and Banking from Kerala Agricultural University and secured 80.10% in 2012

- Diploma course in Banking and Finance from IIBM, Mumbai in 2017
- Senior secondary from Kerala Higher Secondary Examination Board and secured 89% in 2008
- Secondary from Kerala Public Examination Board and secured 93% in 2006.

PROFESSIONAL SYNOPSIS

- Teaching as a banking and finance teacher with 3 years of experience in the area of education with the knowledge of banking and finance
- Worked at College of Cooperation Banking and Management, KAU as Assistant Professor on contract

RESEARCH AND PROJECT WORK

Made following projects during Honours and master degree:

- Fund Management of Parakkadavu Service Cooperative Bank Ltd.
- Marketing and credit information to farmers: Role of Information and Communication Technology

Research Work Made and Published

- Risk Return Analysis of Mutual Funds
- Marketing Information System of Vegetable and Fruit Promotion Council Keralam
- Agriculture Information needs of Farmers: An overview
- Funds Management of Parakkadavu Service Cooperative Bank Ltd. NO: 2483
- Electronic Banking Services : A prelude

ACHIEVEMENTS

- Won Bharat Scouts & Guides Rajya puraskar award in the year 2005
- Won Bharat Scouts & Guides Rashtrapathi Award in the year 2006
- Won second prize for essay writing Malayalam in the interclass arts festival Mirth 10 organised by College of Cooperation Banking and Management in 2010
- Participant in National Social Service Scheme of College of Cooperation Banking and Management from 2009 to 2012 and attended one special NSS Camp
- Kerala Agricultural University, **JUNIOR RESEARCH FELLOWSHIP** for the years 2012-13 and 2013-14.
- First rank holder in M. Sc. Cooperation and banking from College of Cooperation Banking and Management, Kerala Agricultural University in the year 2014
- University Grant Commission *Junior Research Fellowship* and *Lectureship* (November 2017)-
MANAGEMENT
- Secured **APPRECIATION CERTIFICATE** from **RESERVE BANK OF INDIA, Thiruvananthapuram**

for associating with Financial Literacy Programme in Pullu Village in Thrissur, Kerala in 2014

- Secured best paper certificate from International Journal of Agricultural Science and Research for the paper titled “agricultural information needs of farmers: an overview in 2017
- Participated as Team Manager in AGRI UNIFEST 2018 held at Sri Venkadeswara Veterinary University, Tirupati organized by Sri Venkadeswara Veterinary University, Tirupati and Indian Council of Agricultural Research, New Delhi from 12th -16th February 2018
- Research Publications in Journals: 5
- Research publication in proceedings: 4
- Presentations in: National Conferences: 4 Papers
- International Conferences: 4 Papers