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SBI Mutual Fund Schemes: An Analysis of Risk & Return

[1]Dr. Narinder Kaur & [*2]Mrs. Kiran Bala

[1]*Assistant Prof., Punjabi University School of Business Studies (PUSBS), Guru Kashi Campus, Talwandi Sabo, Bathinda (India)*
[2]*Assistant Professor, Mata Sundri University Girls College, Mansa (India)*

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[*]**Corresponding Author**
Email: drkiranjindal[at]rediffmail.com

ABSTRACT

Mutual fund companies are financial intermediaries providing financial services to small investors through mobilization of funds, when the investors invest in a mutual fund they are buying units of the mutual fund and become a unit holder of the fund. Mutual funds provide a readymade option to households for portfolio diversification as well as relative risk aversion. Performance of mutual funds depends on the performance of the underlying portfolio. If one or more schemes perform badly in the portfolio, that can affect the investment decisions of investors and may get them out from the scenario of the wealth creation process. For saving investor's money from such a hazard, it becomes necessary to evaluate the performance of mutual fund portfolio so that investors can take their investment decisions rationally. This paper evaluates the risk & return analysis of five equity open-ended SBI mutual fund schemes in India for the period from 1st Jan 2018 to 31st Jan 2019. Each selected scheme represents different sectors like Banking sector, Technology, FMCG & Pharma and Infrastructure. Statistical tools like average, standard deviation, beta have been used for analysis. The study concludes that SBI Technology fund stands on 1st position because it is providing a good return of 18.12 % as compared to other schemes.

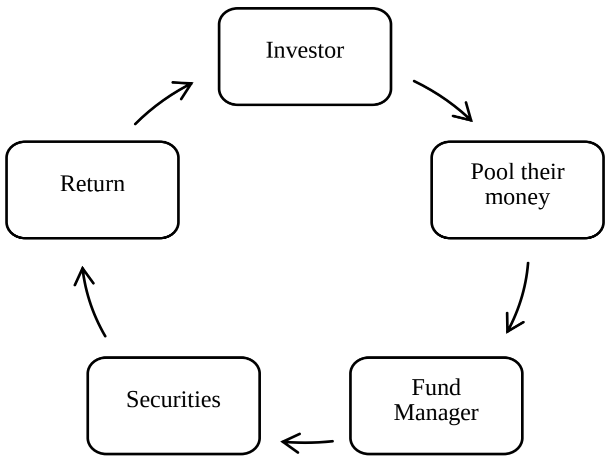
1. Introduction

The financial system comprises of financial institutions, instruments and markets that provide an effective payment and credit system that facilitates the channeling of funds from savers to the investors of the economy. Indian Mutual Funds have emerged as a strong financial stability to the financial system.

Like banks, mutual funds have eventually become a significant part of the Indian financial system and, therefore, a part and parcel of the life of the common investor. To manage personal savings is not an easy task for people. In India, the financial system is entering the next stage of reforms, where individuals will have to decide for themselves what is good and safe for them, or what is risky but rewarding.

A Mutual Fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed basket of securities at a low cost. (Tripathy2007, p 38).

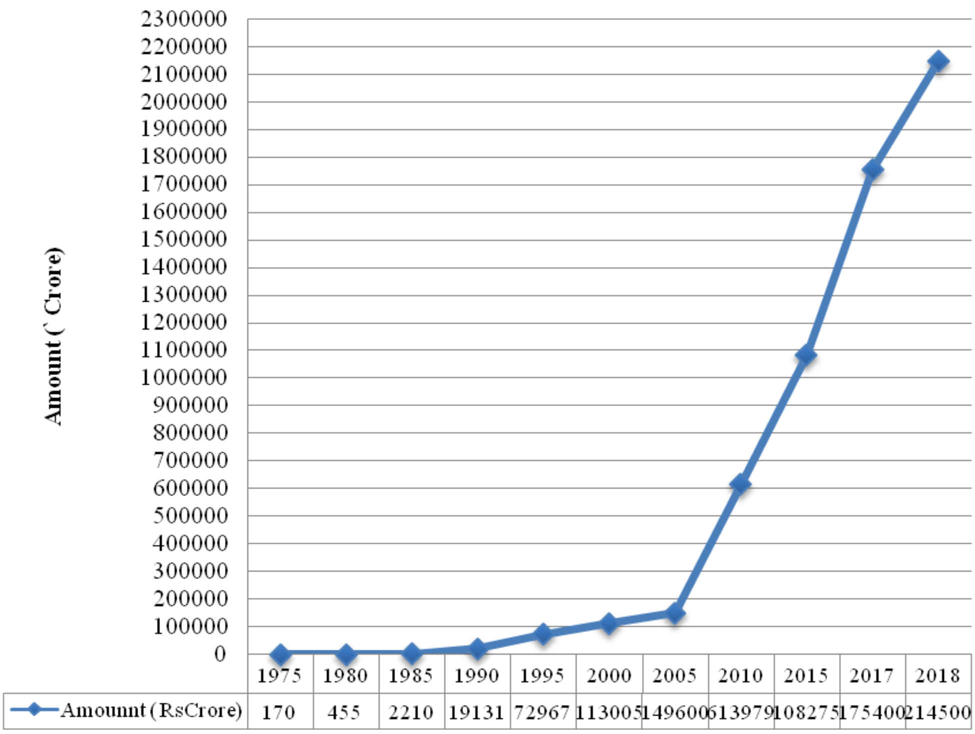
Figure1: Working of Mutual Funds



Source: Dutta, Abhjit(2007), Mutual Funds in India, p-32

Figure 1, shows a complete cycle of movement of funds from investment to return on investment by an investor in mutual funds. A Mutual fund is a vehicle to pool money from investors to invest by professional managers who invest in equity and debt securities which gives return to investors.

Fig.2 Growth Chart of Mutual Funds - Assets under Management



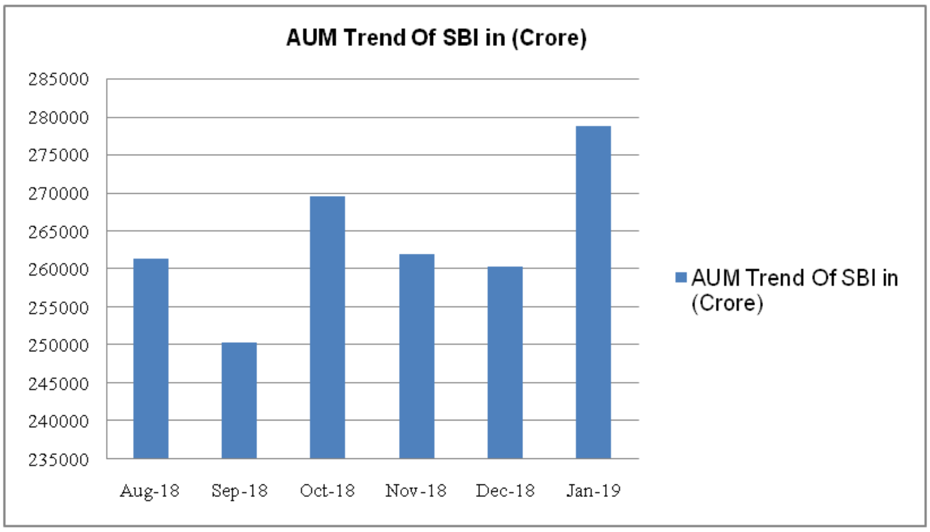
Source: www.sebi.gov.in assessed on 26/10/2018

Figure 2, depicts growth of assets under management over the years. There is massive growth in the assets of Mutual Funds Industry. There has been a constant rise in the total Assets under management since March 2012 despite the changing market conditions. Assets under management were INR 24.67 crore on 31st March 1965, which have grown to INR 21.45 lac crore as on 30th Sept 2018. Factors which contribute towards the growth are the regulatory framework, favorable tax policies, the introduction of new products and investors education campaign.

2. SBI Mutual Fund

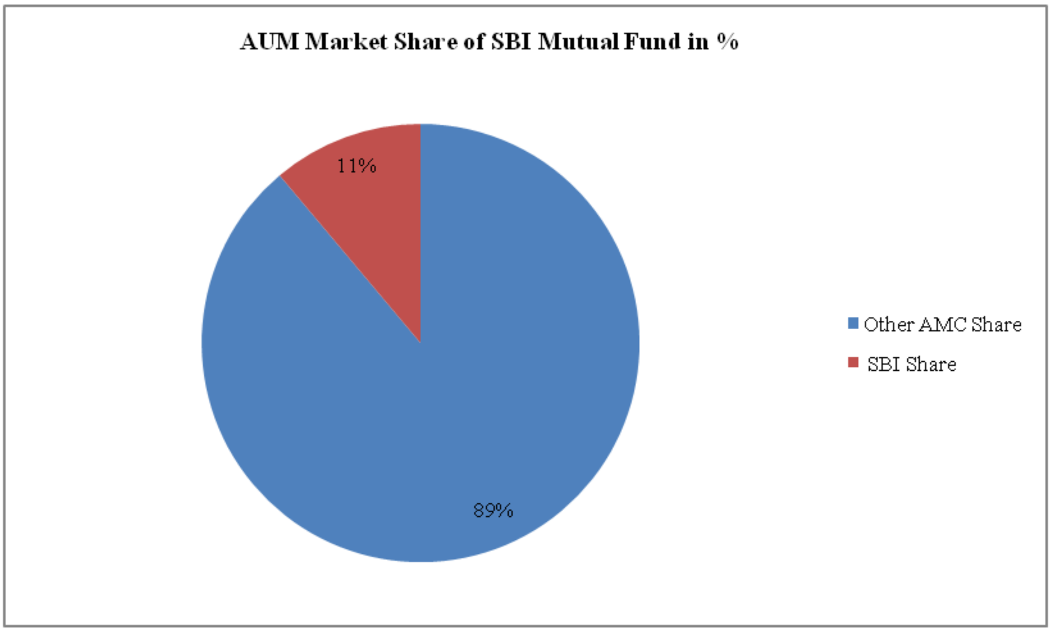
SBI Mutual Fund is a joint venture (JV) between India's largest bank – the State Bank of India (SBI) and an international fund management company called Amundi. The SBI Asset Management Company was set up in 1987.Total AUM of SBI Mutual Fund is ` 23, 78,828.30 (Cr.) Crore and Quarterly Average AUM of SBI Mutual Fund is ` 2,64,668.49 (Cr.) as on 31 Dec 2018. SBI mutual fund has 105 schemes. AUM of SBI has been increasing. It has increased from ` 261356 crores in Aug. 2018 to ` 278714 crores in Jan. 2019 and the percentage market share of SBI mutual fund in total AUM is 11.13%.

Fig.3 Assets Under Management (AUM) Trend of SBI Mutual Fund



Source: www.ndtv.com/business/mutualfunds/sbimutualfund-amc-details_sbi assessed on 6th March 2019 at 9:30 am.

Fig. 4 Percentage Share of SBI Mutual Fund in Total AUM



Source: www.ndtv.com/business/mutualfunds/sbimutualfund-amc-details_sbi assessed on 6th March 2019 at 9:30 am.

3. Literature Review

Jayadev M (1996) evaluated the performance of two growths oriented mutual funds and compared that performance with market portfolio. The objective of the study was to see that funds were offering advantages of diversification, Market timing and Selectivity of securities. Jenson, Treynor and Sharpe measures were used for analysis. Funds selected for the purpose of study were 'Mastergain 1991' of UTI and 'Magnum Express' of SBI Mutual Fund. The period of study was from 1992 to 1994. 13% return offered by post office Monthly Income Deposits as risk –free return was taken. The performance of Magnum Express was poor on the basis of all these three measures. The study concluded that both funds had not performed better than their benchmark indicators. Though Mastergain had performed better than the benchmark of its systematic risk (volatility) with respect to total risk the fund had not outperformed the Market Index. It also resulted that fund were not offering advantages of diversification and professionalism to the investors.

Bhaskar Biswas (2013) analyzed the performance of diversified equity fund schemes in Indian Mutual Fund Industry. He had taken ten best and ten worst performing diversified equity mutual funds for the period of three years (2009-2012). The study was based on secondary data. Analysis had been done by using mathematical and statistical tools i.e. arithmetic mean, percentage, standard deviation, beta, alpha, Sharpe ratio. The study concluded that diversified Equity fund tried to invest only in equities, except for a very small portion in liquid money market securities, but was not focused on any one or few sectors. The study revealed that SBI Magnum Sector funds Umbrella FMCG (34.5) fund, ICICI Prudential FMCG (27.39), SBI Magnum Sector fund Umbrella Pharma (21.21), Reliance Equity opportunity Fund Institutional (19.45), Reliance Equity opportunities Fund (19.23), Religare Mid N Small Cap Fund (18.8), Birla Sun life MNC fund (18.64) and UTI Pharma & Health Fund (18.55) were the best equity fund for investment for the three years (2009-12), because their mean return, standard deviation, beta, alpha and Sharpe ratio were favorable.

Sonali et al. (2015) aimed at evaluating the performance of different Mutual funds in different sectors using the benchmark Index and determined the most profitable mutual fund from the given sample and the most worthy sector. The sectors and mutual funds were chosen on past performances basis. The sample size was small but indicative. The study was based on secondary data. Four sectors (Pharma & health, FMCG, banking & finance, and technology) were taken. Four Mutual funds from each sector had been selected. The scope of the study was limited to a period of 1 year (Nov. 2013 to Nov. 2014). The data was analyzed with special tools of Jenson's alpha, systematic risk Beta, total risk and coefficient of determination R2. The net asset values of the mutual funds and the respective benchmark index were taken. The study showed that Reliance Pharma Fund Direct Plan (G) in Pharma and health sector, ICICI Prudential FMCG fund (G) in FMCG sector, Reliance Invesco Banking fund -RP(G) in banking and finance sector, Birla Sun Life New Millennium (G) in technology sector performed well as compared to the Sensex return. The funds were found to be less volatile than the benchmark index. The study concluded that risk- averse investors preferred above mutual funds.

4. Objective

To analyses risk & return of selected SBI equity growth-oriented mutual fund schemes.

5. Research Methodology

Source of Data

The study is based on secondary data. The data is collected form the Internet and Journals.

Sampling Frame

- Five SBI Mutual Fund Schemes are considered for risk & return analyses:-

- SBI Banking & Financial Service Fund
- SBI Consumption Opportunity Fund
- SBI Technology Opportunity Fund
- SBI Infrastructure Fund
- SBI Healthcare Opportunity Fund

Tools Used For Analysis

The analysis is carried out with the help of the following statistical tools like

Measurement of Return: Net Asset Value (NAV) is the most widely accepted yardstick for measuring the performance of mutual funds. The NAV is the market value of the assets of the schemes minus its liabilities. The per unit NAV is the net asset value of the scheme divided by the number of units outstanding on the valuation date. Monthly NAV values of the selected schemes were used.

$$Rp = \frac{NAVt - NAVt-1}{NAVt-1} * 100$$

Rp = Monthly Return on a Scheme

NAVt = Net Asset Value on the first date of the current month.

NAVt-1 = Net Asset Value on the first date of the current month.

Mean

The mean or arithmetic mean or average is the central tendency of a collection of numbers taken as the sum of the numbers divided by the size of the collection. Mean is used to calculate the average monthly returns.

$$\text{Mean} = \frac{1}{N}\sum_{i=1}^{n} x_i$$

Standard deviation- A Measure of Total Risk

Standard deviation is a widely used measure of variability or diversity used in statistics and probability theory. It shows how much variation exists from average. A low standard deviation indicates that the data points lend to be very close to the mean, whereas high standard deviation indicates that the data point art spread out over a large range of values Standard deviation is used to study in variability of returns of the schemes and benchmark index**.**

Total Risk = Systematic Risk + Unsystematic Risk

$$\text{Standard Deviation } (\sigma) = \sqrt{\frac{\sum(X-\bar{X})^2}{N-1}}$$

Beta

Beta is a measure of the volatility of a particular fund in comparison to the market. It analyses the extent to which the fund's return is impacted by market factor. The beta value for the overall market is 1.00 and other beta values are viewed in relation to this value. Beta value can be positive or negative.

6. Risk & Return Measurement of selected SBI mutual fund schemes

To do risk & return analysis returns of selected funds, average, Standard Deviation, Variance and Beta are calculated. For analysis NAV's of both Regular Plan (Growth option) and Direct Plan (Growth option) are taken.

Direct Plan: A Direct Plan is what you buy directly from the mutual fund company.

Regular Plan: A Regular Plan is what you buy through an advisor, broker or distributor. In a regular plan Mutual Fund Company pays commission to the intermediary.

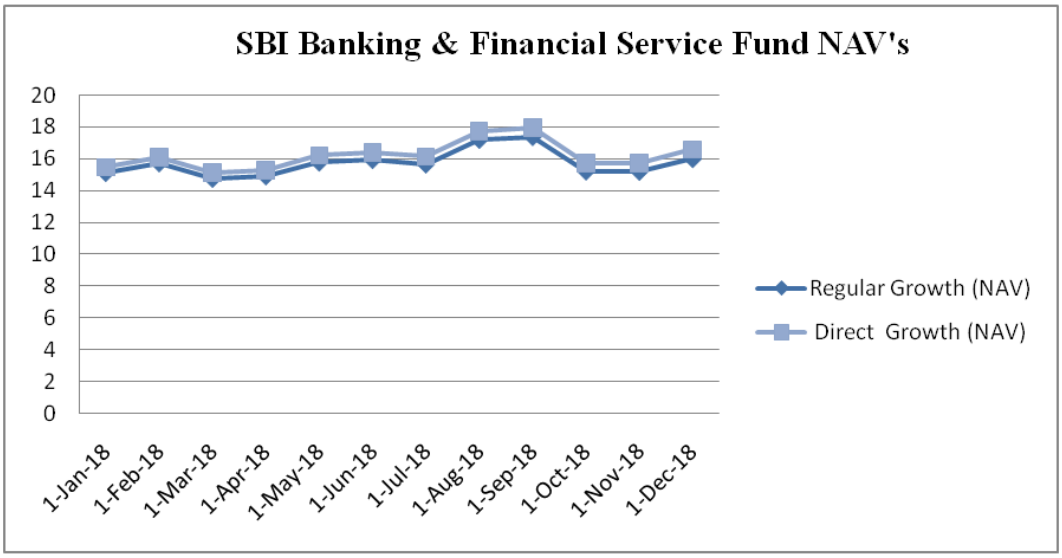
Table 1.1 SBI Banking & Financial Service Fund

Date	Regular- Growth (NAV)	Regular- Growth (Return in %)	Direct- Growth NAV	Direct- Growth (Return in %)
1-Jan-18	15.14		15.49	
1-Feb-18	15.74	3.81	16.12	4.067
1-Mar-18	14.77	-6.163	15.14	-6.08
1-Apr-18	14.93	1.083	15.32	1.189
1-May-18	15.79	5.76	16.22	5.875
1-Jun-18	15.95	1.01	16.41	1.17
1-Jul-18	15.67	-1.76	16.15	-1.58
1-Aug-18	17.21	9.83	17.75	9.907
1-Sep-18	17.39	1.045	17.96	1.183
1-Oct-18	15.23	-12.42	15.75	-12.31
1-Nov-18	15.21	-0.13	15.74	-0.063
1-Dec-18	16.01	5.26	16.59	5.40
1-Jan-19	16.77	4.74	17.39	4.82
AVERAGE	15.83	1.00	16.31	1.13
SD	0.84		0.87	
VARIANCE	0.70		0.81	
COVARIANCE	0.70		0.72	
BETA	1		0.88	

Source: Calculated Data and NAV's are taken from Amfi.com assessed on 18.02.2019 at 9:20

Interpretation:

The above table 1.1 reveals that SBI Banking & Financial Regular Plan Fund has beta value of 1.00 for the year 2018. The average return over the period is 1%. Over the year the return on fund is 12%. The SBI Banking & Financial Direct Plan has beta value of 0.88. The average return over the period is 1.13%. Over the year the return on fund is 13.56%.



Interpretation:

The above figure depicts that NAV's of SBI Banking & Financial Fund regular plan are slightly less than the direct plan because of brokerage expenses. In a regular plan Mutual Fund Company pays commission to the intermediary.

Table 1.2 SBI Consumption Opportunity Fund

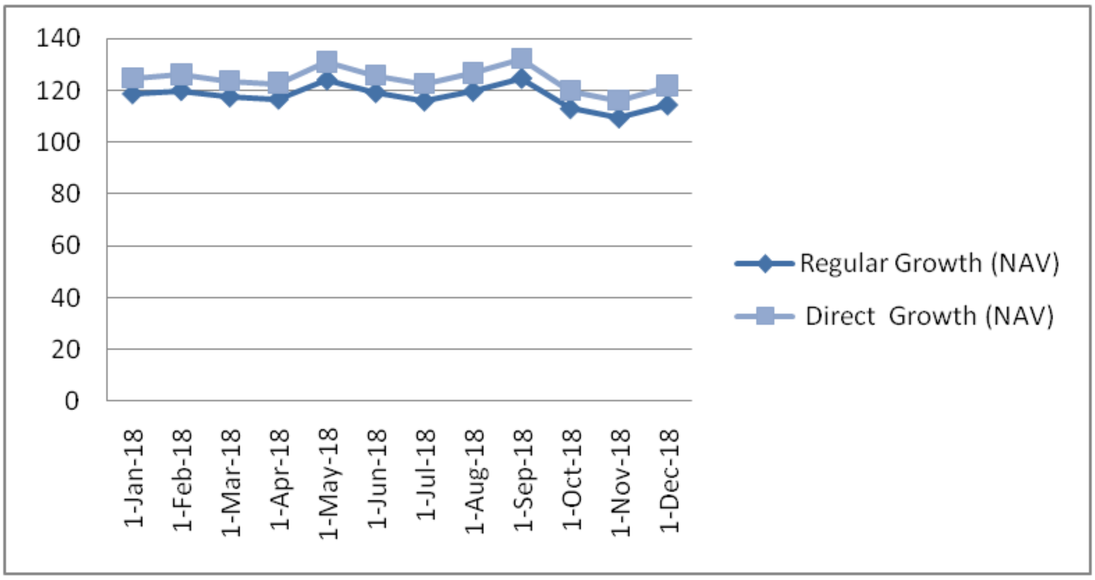
Date	Regular Plan- Growth	Regular- Growth (Return %)	Direct -Growth NAV	Direct -Growth (Return in %)
1-Jan-18	118.73		124.67	
1-Feb-18	120.03	1.09	126.15	1.19
1-Mar-18	117.54	-2.07	123.64	-1.99
1-Apr-18	116.62	-0.78	122.83	-0.66
1-May-18	124.13	6.44	130.9	6.57
1-Jun-18	119.22	-3.96	125.89	-3.83
1-Jul-18	115.96	-2.73	122.6	-2.61
1-Aug-18	119.66	3.19	126.68	3.33
1-Sep-18	124.74	4.24	132.24	4.39
1-Oct-18	112.95	-9.45	119.86	-9.36
1-Nov-18	109.32	-3.21	116.14	-3.10
1-Dec-18	114.41	4.66	121.67	4.76
1-Jan-19	115.97	1.36	123.46	1.47
AVERAGE	117.64	-0.10	124.36	0.013
SD	4.23		4.26	
VARIANCE	17.86		18.14	
COVARIANCE	17.86		18.14	
BETA	1		1	

Source: Calculated Data and NAV's are taken from Amfi.com assessed on 18.02.2019 at 9:10

Interpretation:

From the above table 1.2 it can be noted that SBI Consumption Opportunity Regular Plan Fund has beta value of 1.00 for the year 2018. The average return over the period is (-0.10%). Over the year the return on fund is (-1.2%). SBI Consumption Opportunity Fund Direct Plan has beta value of 1.00 for the year 2018. The average return over the period is .013%. Over the year the return on fund is 0.16%.

SBI Consumption Opportunity Fund NAV's



Interpretation:

The above figure shows that NAV's of SBI Consumption Opportunity Fund regular plan are slightly less than the direct plan because of brokerage expenses. In a regular plan Mutual Fund Company pays commission to the intermediary.

Table 1.3 SBI Technology Opportunity Fund

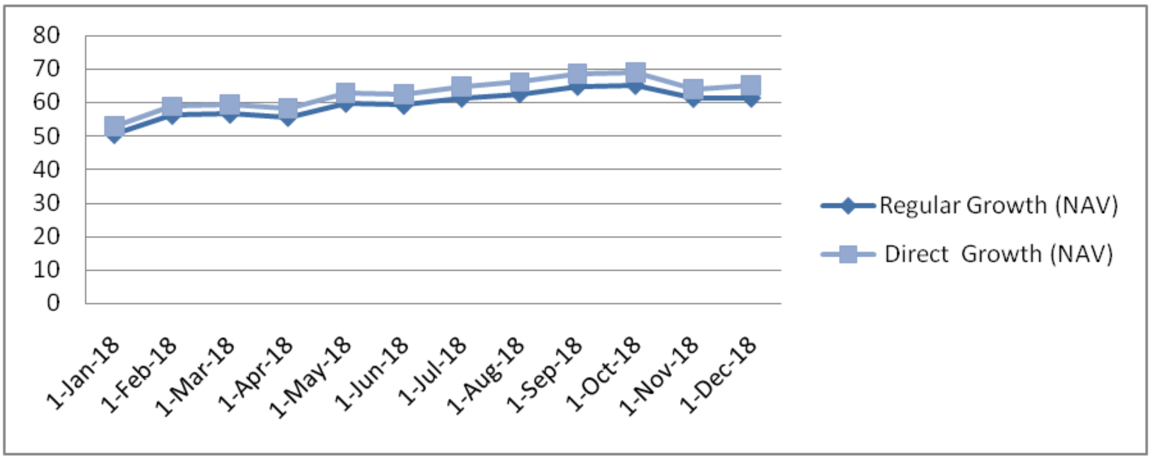
Date	Regular Plan- Growth	Regular- Growth (Return %)	Direct -Growth NAV	Direct -Growth (Return in %)
1-Jan-18	50.6		52.93	
1-Feb-18	56.31	11.28	58.94	11.35
1-Mar-18	56.64	0.59	59.33	0.66
1-Apr-18	55.7	-1.66	58.43	-1.52
1-May-18	59.88	7.50	62.9	7.65
1-Jun-18	59.29	-0.98	62.38	-0.83
1-Jul-18	61.37	3.51	64.68	3.69
1-Aug-18	62.67	2.12	66.16	2.29
1-Sep-18	64.93	3.61	68.66	3.78
1-Oct-18	65.21	0.43	69.03	0.54
1-Nov-18	60.35	-7.45	63.96	-7.34
1-Dec-18	61.41	1.76	65.17	1.89
1-Jan-19	59.89	-2.48	63.55	-2.48
AVERAGE	59.56	1.52	62.78	1.64
SD	4.00		4.29	
VARIANCE	16.00		19.93	
COVARIANCE	16.00		19.93	
BETA	1		1	

Source: Calculated Data and NAV's are taken from Amfi.com assessed on 18.02.2019 at 9:10

Interpretation:

From the above table 1.3 it can be seen that SBI Technology Opportunity Fund Regular Plan has beta value of 1.00 for the year 2018. The average return over the period is 1.52%. Over the year the return on fund is 18.12%. SBI Technology Opportunity Fund Direct Plan has beta value of 1.00 for the year 2018. The average return over the period is 1.64%. Over the year the return on fund is 19.68%.

SBI Technology Opportunity Fund NAV's



***Interpretation*:**

The above figure reveals that NAV's of SBI Technology Opportunity Fund regular plan are slightly less than the direct plan because of brokerage expenses. In a regular plan Mutual Fund Company pays commission to the intermediary.

Table 1.4 SBI Infrastructure Fund

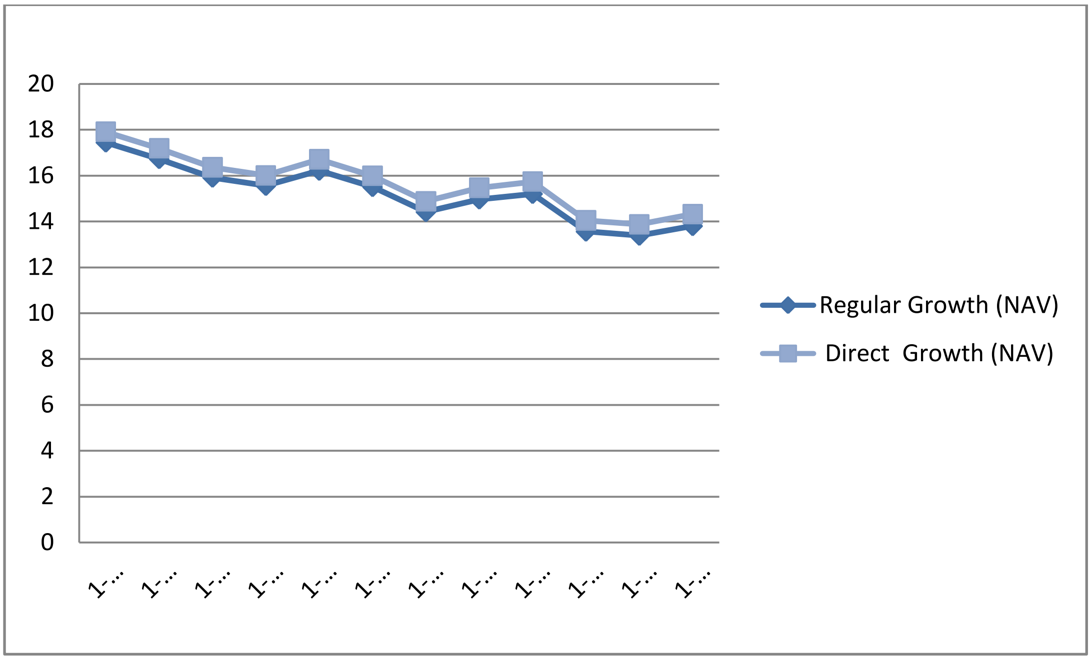
Date	Regular Plan- Growth	Regular- Growth (Return %)	Direct -Growth NAV	Direct -Growth (Return in %)
1-Jan-18	17.44		17.91	
1-Feb-18	16.72	-4.13	17.19	-4.02
1-Mar-18	15.91	-4.84	16.36	-4.83
1-Apr-18	15.55	-2.26	16.01	-2.14
1-May-18	16.21	4.24	16.71	4.37
1-Jun-18	15.5	-4.38	15.99	-4.31
1-Jul-18	14.41	-7.03	14.88	-6.94
1-Aug-18	14.96	3.82	15.47	3.96
1-Sep-18	15.2	1.60	15.74	1.75
1-Oct-18	13.56	-10.79	14.05	-10.74
1-Nov-18	13.38	-1.33	13.88	-1.21
1-Dec-18	13.8	3.14	14.32	3.17
1-Jan-19	14.31	3.70	14.86	3.77
AVERAGE	15.15	-1.52	15.64	-1.43
SD	1.24		1.23	
VARIANCE	1.54		1.51	
COVARIANCE	1.54		1.51	
BETA	1		1	

Source: Calculated Data and NAV's are taken from Amfi.com assessed on 18.02.2019 at 10:10

***Interpretation*:**

From the above table 1.4 it can be noted that SBI Infrastructure Fund Regular Plan has beta value of 1.00 for the year 2018. The average return over the period is (-1.52%) Over the year the return on fund is (-18.26%). SBI Infrastructure Fund Direct Plan has beta value of 1.00 for the year 2018. The average return over the period is (-1.43%). Over the year the return on fund is (-17.16%).

SBI Infrastructure Fund NAV's



***Interpretation*:**

The above figure reveals that NAV's of SBI Infrastructure Fund regular plan are slightly less than the direct plan because of brokerage expenses. In a regular plan Mutual Fund Company pays commission to the intermediary.

Table 1.5 SBI Healthcare Opportunity Fund

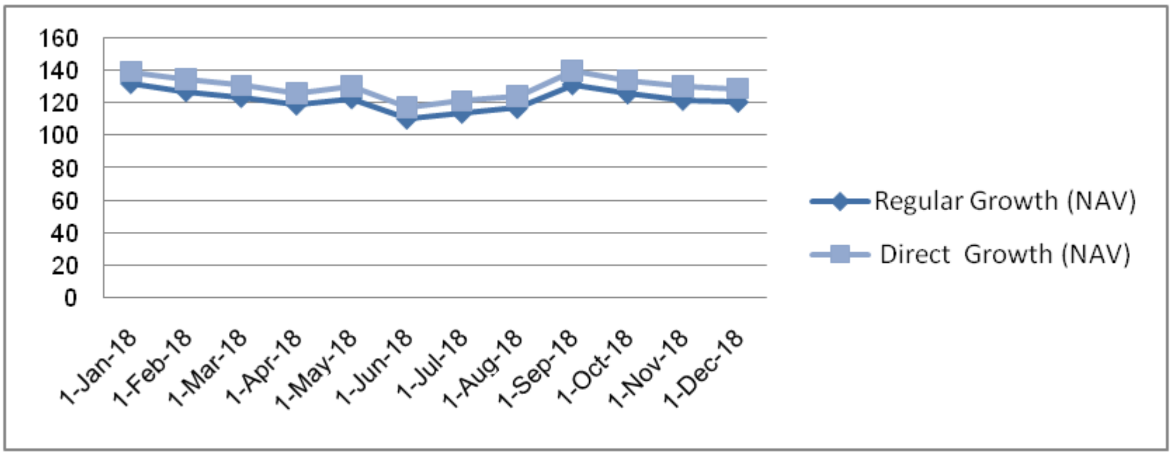
Date	Regular Plan- Growth	Regular- Growth (Return %)	Direct -Growth NAV	Direct -Growth (Return in %)
1-Jan-18	132.31		139.62	
1-Feb-18	127.41	-3.70	134.59	-3.60
1-Mar-18	123.82	-2.82	130.92	-2.73
1-Apr-18	119.22	-3.72	126.19	-3.61
1-May-18	123.05	3.21	130.39	3.33
1-Jun-18	110.53	-10.17	117.26	-10.06
1-Jul-18	114.14	3.27	121.23	3.39
1-Aug-18	117.08	2.58	124.49	2.69
1-Sep-18	131.59	12.39	140.08	12.52
1-Oct-18	125.97	-4.27	134.22	-4.18
1-Nov-18	122.01	-3.14	130.14	-3.04
1-Dec-18	120.86	-0.94	129.03	-0.85
1-Jan-19	119.37	-1.23	127.55	-1.15
AVERAGE	122.10	-0.71	129.67	-0.61
SD	6.33		6.61	
VARIANCE	40.09		43.64	
COVARIANCE	40.09		43.64	
BETA	1		1	

Source: Calculated Data and NAV's are taken from Amfi.com assessed on 18.02.2019 at 10:00

***Interpretation*:**

The above table 1.5 shows that SBI Healthcare Opportunity Fund Regular Plan has beta value of 1.00 for the year 2018. The average return over the period is (-0.71%). Over the year the return on fund is (-8.55%). SBI Infrastructure Fund Direct Plan has beta value of 1.00 for the year 2018. The average return over the period is (-0.61%). Over the year the return on fund is (-7.31%).

SBI Healthcare Opportunity Fund NAV's



***Interpretation*:**

The above figure reveals that NAV's of SBI Healthcare Opportunity Fund regular plan are slightly less than the direct plan because of brokerage expenses. In a regular plan Mutual Fund Company pays commission to the intermediary.

7. Findings of the Study

It is found that SBI Technology opportunity Fund has performed the best as the return of regular plan for the year is 18.12% and of direct plan is 19.68 %. SBI Banking & Financial Service Fund gets 2nd position by having the return for the year 12% and return of direct plan is 13.56%.

8. Conclusion

The study found Mutual Fund as a good investment tool but in order to get good return, investors should have proper information of the fund and awareness of all asset management companies where they want to invest. So it is advised that investors should contact the advisory securities for gaining knowledge regarding good schemes in terms of maximum return and minimum risk.

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