

SBI MUTUAL FUND SCHEMES

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Abstract:

In this paper provides evaluating the performance of selected mutual funds, mainly offering different schemes by SBI Mutual Fund house has offered under open ended schemes, over the period April 2009 to march 2020. This study focused on Risk and Return, Risk-return relationship of mutual fund schemes in relation to the benchmark portfolio is computed.

Keywords: Performance evaluation, Risk – return analysis, Treynor, Sharpe, Jenson Model, Alpha, Beta, fund return, Market Return.

1. INTRODUCTION.

The mutual fund industry in India has witnessed rapid since its liberalization in 1993, prior to 1993, only public sector banks or Insurance companies, along with the Unit trust of India (UTI) was allowed to manage funds. The entry of private fund managers initiated a period of substantial growth in the assets managed by the fund industry. In the financial services mutual funds are mainly helping to small saving of the high number of investors to invest in the capital market with a variety of schemes to enable to investors to take advantage of opportunities not only in the equity, Debt and Money market and also in specific industries and sectors to avowed objective of attractive yields and appreciation in their value. The income earned through these investments and the capital appreciations realized by the scheme are shared by its unit holders in proportion to the number of units owned by them. Thus, a mutual fund is the most suitable investment for the common man as it offers an opportunity to invest in a diversified, professionally managed portfolio at a relatively low cost. As defined in the pamphlet of the Association of Mutual Funds in India (AMFI). "A mutual fund is a trust that pools the savings of a number of investors who share a common financial goal. Anybody with an investible surplus of as little as a few thousand rupees can invest in mutual funds. These investors buy units of a particular mutual fund scheme that has a defined investment objective and strategy."

1.1. Introduction of SBI Mutual Fund.

The mutual fund industry in India originally began in 1963 with the Unit Trust of India (UTI) as a Government of India and the Reserve Bank of India initiative. Launched in 1987, SBI Mutual Fund became the first non-UTI mutual fund in India. In July 2004, State Bank of India decided to divest 37 per cent of its holding in its mutual fund arm, SBI Funds Management Pvt Ltd, to Societe Generale Asset Management, for an amount in excess of \$35 million. Post-divestment,



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State Bank of India's stake in the mutual fund arm came down to 67%. In May 2011, Amundi picked up 37% stake in SBI Funds Management, that was held by Societe Generale Asset Management, as part of a global move to merge its asset management business with Crédit Agricole. SBI Funds Management Private Limited (SBIFMPL) has been appointed as the Asset Management Company of the SBI Mutual Fund. SBIFMPL is a joint venture between the State Bank of India, an Indian public sector bank, and Amundi, a European asset management company. As of September, 2019, the fund house claims to serve 5,809,315 unique investors through approximately 212 branches PAN India. As of September 2021, the total AUM stands at Rs.579318.29 crores.

SBI Mutual Fund house Services

SBI Mutual fund house mission has been to establish Mutual Funds as a viable investment option to the masses in the country. Working towards it, it developed innovative, need-specific products and educated the investors about the added benefits of investing in capital markets via Mutual Funds. Today, SBI have been actively managing their investors' assets not only through their investment expertise in domestic mutual funds, but also offshore funds and portfolio management advisory services for institutional investors.

2. Objective of the Study

• To evaluate the performance of selected SBI Mutual Fund schemes.

3. Data and their sources.

To evaluate the performance of selected 3 mutual fund schemes to examine the investment performance of the SBI Mutual Funds. The total mutual fund schemes are open – ended Schemes. Table 1 gives the necessary information on the selected sample schemas.

4. The sample Data

The all samples use daily NAV data for the eleven year period April 1, 2009 to March 31, 2020. The necessary data have been collected from the SBI Mutual fund house, AMFI websites.

5. Benchmark portfolio.

The S&P CNX Nifty index has been used as the benchmark portfolio.

6. The Risk – Free Proxy.

In this study purpose used used 91 – day treasury bills (T- bills) as a risk free asset.

8. Performance evaluation methods.

The purpose of comparing the performance of SBI mutual fund schemes and Benchmark index, various parameters of financial importance are taken as a basis of comparison. These parameters include risk, returns, Sharpe's reward to variability index, Treynor's reward to volatility index, Jensen's differential index, Beta and Alpha.

Here are a number of statistics that make it possible to more precisely quantify the relationship between the risk and return. These measurements help to determine.



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- Funds volatility (standard deviation) i.e., Variation from the average.
- Funds volatility as records market index (Beta) i.e., The extent of co-movement of fund with that of benchmark index.

9. Empirical Results:

An analysis of the data furnished in Table 2 reveals that during the study period the SBI -Focused Equity Fund has maintained average returns at 0.0842 which is higher than the market (bench mark) returns i.e., 0.0472 and this fund obtained an average standard deviation of 0.9640, while the bench mark standard deviation has been around 1.0944 of BSE, which is much higher than the fund's standard deviation. This clearly indicates that the fund is very less risky than the market. The Sharpe's ratio (0.079) has been quite impressive and higher than the bench mark ratio (0.0442 of BSE). The same is in the case with Trenoy Ratio. Hence, it can be concluded that the fund generated positive returns to the investors. The same can be observed from the fund's alpha and Jensen Ratio which are positive. This indicates that the fund has given more returns than the expected returns with the given amount of risk of the fund. The fund returns are 72.95 percentage correlated with the benchmark. The coefficient of determination of the fund is 0.5437 which indicates 54 percentage of the variations in the fund's returns are due to the variation in the market and the remaining 46 percentage is due to other causes. The Beta value of 0.6534 indicates that the fund has lower risk when compared to market, it may be due to high risk diversification of the fund. All in all, it is concluded that the fund managers are able to generate higher returns to the investors, vis-à-vis the market timing.

A detailed analysis of the SBI - Healthcare Opportunities Fund's risk adjusted performance measures furnished in the Table 3 indicates that starting from the year 2009 till the year 2020, the fund has generated average returns of 0.0745 percentage for the period of the study which is higher than the benchmark index average returns of 0.0472 percentage. The fund maintained an average standard deviation of 1.011, this indicates that the fund is less risky to the investor compared to the benchmark standard deviation of 1.0944.

The fund (over the years) generated on an average a Sharpe ratio of 0.0578 against the benchmark Sharpe ratio of BSE 0.0442. Therefore, it can be said that the fund is providing better returns to the investors. It is evident from the analysis that the fund is less risky than the market risk as the average systematic risk (0.5511) is lower than the benchmark beta '1'. The Sharpe as well as the Treynor values of the fund is significantly higher than the bench mark index. The alpha value and Jensen Ratio being positive indicates that the fund has provided the expected returns with the given amount of risk involved in the fund. The fund returns have correlated with benchmark by 56 percentage. The coefficient of determination of the fund is 0.0332 which indicates 33 percentage of the variation in the fund returns is due to the variation in the market and the remaining 67 percentage is due to other causes.

Table 4 presents the risk adjusted performance measures SBI - Magnum Global Fund. From the Table 4 it is observed that the standard deviation of the fund (0.8642) is lower than the benchmark standard deviation (1.0944). This indicates that the fund is associated with less risk than that of the market. The Sharpe Ratio, Treynor ratio and Jensen measures are pasitive indicating clearly that there is ability to generate superior returns compared to the market. The fund returns are correlated with benchmark by 92 percentage. The coefficient of determination of



the fund is 0.5292 which indicates 53 percentage of the variation in the fund returns is due to the variation in the market and the remaining 47 percentage is due to other causes. The funds beta (0.5817) value clearly indicates that the fund has lower risk compared to the market as the beta is less than '1'. Hence, it is clear from the analysis that the fund, SBI - Magnum Global Fund with growth option is capable of generating higher returns compared to the market.

| Sl.No | Fund Name | Scheme Category | Period |
|-------|--------------------------------|-----------------|--------------------------|
| 1 | SBI - Focused Equity Fund | Growth | 01/04/2009 to 31/03/2020 |
| | SBI - Healthcare Opportunities | | |
| 2 | Fund | Growth | 01/04/2009 to 31/03/2020 |
| 3 | SBI - Magnum Global Fund | Growth | 01/04/2009 to 31/03/2020 |

Table 1: Sample of the Mutual Fund Schemes

| rable.4.2. 5D1 - rocused Equity rund | | | | | | | | | | | | | |
|--------------------------------------|----------------------------|------------------------|-----------------|------------------|----------------------------------|------------------------------------|--------|-------------|-----------------|------------------|-------------------|---------------------------|----------------------------|
| Year | Market Returns (BSE) | Risk free return | Fund Returns | Risk | Coefficient of correlation | Coefficient of determination | Beta | Alpha | Sharpe Ratio | Treynor Ratio | Jensen Measure | Market Sharpe Ratio | Market Treynor Ratio |
| | R _m | R _f | R _p | $\sigma_{\rm p}$ | r | \mathbf{r}^2 | β | α | S | Т | J | Sm | Tm |
| 2009-10 | 0.2530 | - 0.0324 | 0.3854 | 1.7555 | 0.8198 | 0.6721 | 0.7503 | 0.1956 | 0.2380 | 0.5569 | 0.4098 | 0.1491 | 0.2854 |
| 2010-11 | 0.0470 | 0.2142 | 0.0561 | 1.0718 | 0.7076 | 0.5007 | 0.6862 | 0.0239 | - 0.1475 | -0.2305 | -0.0909 | - 0.1513 | -0.1673 |
| 2011-12 | -0.0363 | 0.0864 | 0.0522 | 1.0291 | 0.7002 | 0.4902 | 0.5616 | 0.0726 | - 0.0332 | -0.0609 | 0.0037 | - 0.0956 | -0.1227 |
| 2012-13 | 0.0349 | - 0.0379 | 0.0783 | 0.7362 | 0.5424 | 0.2942 | 0.5027 | 0.0608 | 0.1578 | 0.2311 | 0.0974 | 0.0916 | 0.0728 |
| 2013-14 | 0.0748 | 0.0735 | 0.0424 | 0.7443 | 0.6445 | 0.4153 | 0.4363 | 0.0098 | - 0.0418 | -0.0712 | 0.0103 | 0.0012 | 0.0013 |
| 2014-15 | 0.0952 | - 0.0275 | 0.1807 | 0.8334 | 0.6589 | 0.4342 | 0.6330 | 0.1204 | 0.2498 | 0.3289 | 0.1981 | 0.1415 | 0.1227 |
| 2015-16 | -0.0340 | - 0.0507 | -0.0020 | 0.8786 | 0.8245 | 0.6798 | 0.6738 | 0.0209 | 0.0555 | 0.0723 | 0.0322 | 0.0156 | 0.0167 |
| 2016-17 | 0.0659 | - 0.0872 | 0.0737 | 0.7530 | 0.7380 | 0.5447 | 0.7233 | 0.0260 | 0.2136 | 0.2224 | 0.1367 | 0.1992 | 0.1531 |
| 2017-18 | 0.0455 | 0.0203 | 0.0812 | 0.6713 | 0.6366 | 0.4053 | 0.6799 | 0.0503 | 0.0907 | 0.0896 | 0.0674 | 0.0401 | 0.0252 |
| 2018-19 | 0.0673 | 0.0144 | 0.0333 | 0.7456 | 0.8066 | 0.6506 | 0.7863 | - 0.0196 | 0.0254 | 0.0240 | 0.0220 | 0.0691 | 0.0529 |
| 2019-20 | -0.0945 | - 0.1393 | -0.0548 | 1.3849 | 0.9452 | 0.8934 | 0.7534 | 0.0165 | 0.0610 | 0.1122 | 0.0502 | 0.0258 | 0.0447 |
| Average | 0.0472 | 0.0031 | 0.0842 | 0.9640 | 0.7295 | 0.5437 | 0.6534 | 0.0525 | 0.0790 | 0.1159 | 0.0852 | 0.0442 | 0.0441 |
| | | C | (| ٦ | L J NTA TZ | 1 / | | | | | | | |

Table 4.2 CDI Econord Econitry Frond

Source: Computed NAV data

| Table.4.3. SBI | - Healthcare | Opportunities Fund |
|----------------|--------------|---------------------------|
|----------------|--------------|---------------------------|

| Year | Mark et Retur ns (BSE) | Risk free retur n | Fund Retur ns | Risk | Coeffici ent of correlati on | Coefficien t of determinat ion | Beta | Alph a | Shar pe Ratio | Treyn or Ratio | Jensen Measu re | Mark et Shar pe Ratio | Mark et Treyn or Ratio |
|-------|--|----------------------------|---------------------|----------------|--|--|------|-----------|---------------------|----------------------|-----------------------|-----------------------------------|------------------------------------|
| | R _m | R _f | R _p | σ _p | r | \mathbf{r}^2 | β | α | S | Т | J | Sm | T _m |
| 2009- | 0.253 | - | 0.321 | 1.42 | 0.6627 | 0.4391 | 0.49 | 0.19 | 0.24 | 0.720 | 0.337 | 0.149 | 0.285 |
| 10 | 0 | 0.032 | 3 | 08 | | | 08 | 71 | 90 | 7 | 2 | 1 | 4 |
| | | 4 | | | | | | | | | | | |
| 2010- | 0.047 | 0.214 | 0.062 | 0.79 | 0.6118 | 0.3743 | 0.43 | 0.04 | - | - | - | - | - |
| 11 | 0 | 2 | 6 | 11 | | | 78 | 20 | 0.19 | 0.346 | 0.031 | 0.151 | 0.167 |
| | | | | | | | | | 17 | 4 | 2 | 3 | 3 |
| 2011- | - | 0.086 | 0.039 | 0.70 | 0.6258 | 0.3916 | 0.34 | 0.05 | - | - | 0.010 | - | - |
| 12 | 0.036 | 4 | 6 | 32 | | | 30 | 21 | 0.06 | 0.136 | 0 | 0.095 | 0.122 |
| | 3 | | | | | | | | 65 | 3 | | 6 | 7 |

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| 2012- | 0.034 9 | - 0.037 | 0.083 | 0.67 47 | 0.3314 | 0.1098 | 0.28 | 0.07 34 | 0.17 95 | 0.430 | 0.093 9 | 0.091 | 0.072 8 |
|-------|------------|---------|-------|------------|--------|--------|------|------------|------------|-------|------------|-------|------------|
| 10 | - | 9 | - | ., | | | 10 | 5. | 10 | - | - | 0 | U |
| 2013- | 0.074 | 0.073 | 0.125 | 0.93 | 0.5209 | 0.2713 | 0.44 | 0.09 | 0.05 | 0.116 | 0.092 | 0.001 | 0.001 |
| 14 | 8 | 5 | 0 | 25 | | | 19 | 20 | 53 | 6 | 6 | 2 | 3 |
| 2014- | 0.095 | - | 0.238 | 1.05 | 0.3467 | 0.1202 | 0.42 | 0.19 | 0.25 | 0.633 | 0.250 | 0.141 | 0.122 |
| 15 | 2 | 0.027 | 7 | 14 | | | 01 | 87 | 32 | 7 | 3 | 5 | 7 |
| | | 5 | | | | | | | | | | | |
| 2015- | - | - | - | 1.40 | 0.7048 | 0.4968 | 0.92 | 0.02 | 0.03 | 0.047 | 0.040 | 0.015 | 0.016 |
| 16 | 0.034 | 0.050 | 0.006 | 62 | | | 18 | 48 | 14 | 9 | 2 | 6 | 7 |
| | 0 | 7 | 6 | | | | | | | | | | |
| 2016- | 0.065 | - | 0.016 | 0.90 | 0.5947 | 0.3536 | 0.70 | - | 0.11 | 0.147 | 0.077 | 0.199 | 0.153 |
| 17 | 9 | 0.087 | 0 | 53 | | | 07 | 0.03 | 41 | 4 | 1 | 2 | 1 |
| | | 2 | | | | | | 01 | | | | | |
| 2017- | 0.045 | 0.020 | - | 0.90 | 0.5046 | 0.2546 | 0.73 | - | - | - | - | 0.040 | 0.025 |
| 18 | 5 | 3 | 0.060 | 99 | | | 04 | 0.09 | 0.08 | 0.110 | 0.075 | 1 | 2 |
| | | | 5 | | | | | 38 | 89 | 7 | 4 | | |
| 2018- | 0.067 | 0.014 | 0.013 | 1.08 | 0.5331 | 0.2842 | 0.75 | - | - | - | 0.002 | 0.069 | 0.052 |
| 19 | 3 | 4 | 1 | 19 | | | 42 | 0.03 | 0.00 | 0.001 | 2 | 1 | 9 |
| | | | | | | | | 76 | 12 | 8 | | | |
| 2019- | - | - | - | 1.24 | 0.7547 | 0.5696 | 0.54 | 0.03 | 0.10 | 0.234 | 0.062 | 0.025 | 0.044 |
| 20 | 0.094 | 0.139 | 0.012 | 35 | | | 02 | 82 | 17 | 1 | 4 | 8 | 7 |
| | 5 | 3 | 8 | | | | | | | | | | |
| Avera | 0.047 | 0.003 | 0.074 | 1.01 | 0.5628 | 0.3332 | 0.55 | 0.05 | 0.05 | 0.157 | 0.078 | 0.044 | 0.044 |
| ge | 2 | 1 | 5 | 10 | | | 11 | 06 | 78 | 8 | 1 | 2 | 1 |

Source: Computed NAV data

| Year 2009- | Marke t Retur ns (BSE) R _m 0.253 | Risk free retur n R f | Fund Retur ns R _p 0.365 | Risk <u>op</u> 1.659 | Coefficie nt of correlati on r 0.8371 | Coefficient of determinati on r ² 0.7008 | Beta <u>β</u> 0.724 | Alpha <u>α</u> 0.182 | Sharp e Ratio S 0.240 | Treyn or Ratio T 0.549 | Jensen Measu re J 0.3894 | Mark et Sharp e Ratio S_m 0.149 | Marke t Treyn or Ratio T _m 0.285 |
|-------------------|--|--|---|-----------------------------------|--|---|---------------------------|----------------------------|-----------------------------------|------------------------------------|--------------------------------------|--|---|
| 10 2010- 11 | 0 0.047 0 | 0.032 4 0.214 2 | 9 0.025 6 | 7 0.844 9 | 0.7518 | 0.5651 | 4 0.574 6 | - 0.001 | 0 - 0.223 | - 0.328 | - 0.0975 | - 0.151 | 4 |
| 2011- 12 | - 0.036 3 | 0.086 4 | 0.039 | 0.873 | 0.6938 | 0.4813 | 0.472 | 4 0.056 3 | - 0.054 1 | - 0.100 1 | - 0.0017 | - 0.095 6 | - 0.122 7 |
| 13 | 0.034 9 | - 0.037 9 | 0.040 4 | 0.591 0 | 0.5/34 | 0.3287 | 0.426 6 | 0.025 5 | 0.132 4 | 0.183 5 | 0.0566 | 0.091 6 | 0.072 8 |
| 2013- 14 | 0.074 8 | 0.073 5 | 0.096 5 | 0.671 5 | 0.6496 | 0.4220 | 0.396 8 | 0.066 8 | 0.034 2 | 0.058 0 | 0.0673 | 0.001 2 | 0.001 3 |
| 2014- 15 | 0.095 2 | - 0.027 5 | 0.211 6 | 0.752 3 | 0.6677 | 0.4458 | 0.578 9 | 0.156 5 | 0.317 9 | 0.413 1 | 0.2276 | 0.141 5 | 0.122 7 |
| 2015- 16 | - 0.034 0 | - 0.050 7 | - 0.022 2 | 0.858 1 | 0.8029 | 0.6446 | 0.640 8 | - 0.000 4 | 0.033 2 | 0.044 5 | 0.0103 | 0.015 6 | 0.016 7 |
| 2016- 17 | 0.065 9 | - 0.087 2 | 0.059 3 | 0.658 0 | 0.6952 | 0.4833 | 0.595 4 | 0.020 1 | 0.222 7 | 0.246 1 | 0.1113 | 0.199 2 | 0.153 1 |
| 2017- 18 | 0.045 5 | 0.020 3 | 0.067 0 | 0.688 5 | 0.6302 | 0.3971 | 0.690 2 | 0.035 6 | 0.067 8 | 0.067 6 | 0.0530 | 0.040 1 | 0.025 2 |
| 2018- 19 | 0.067 3 | 0.014 4 | - 0.001 6 | 0.676 9 | 0.7691 | 0.5915 | 0.680 7 | - 0.047 4 | - 0.023 7 | - 0.023 6 | - 0.0114 | 0.069 1 | 0.052 9 |
| 2019- 20 | - 0.094 5 | - 0.139 3 | - 0.040 2 | 1.230 5 | 0.8723 | 0.7609 | 0.617 8 | 0.018 2 | 0.080 5 | 0.160 4 | 0.0459 | 0.025 8 | 0.044 7 |
| Avera ge | 0.047 2 | 0.003 1 | 0.076 5 | 0.864 1 | 0.7221 | 0.5292 | 0.581 7 | 0.046 6 | 0.075 3 | 0.115 6 | 0.0773 | 0.044 2 | 0.044 |

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Source: Computed NAV data

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