

A Study on analysis of “open ended schemes” of different asset management companies to focus on the diversity of investment that mutual funds offer

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INTRODUCTION

A venture vehicle that is comprised of a pool of funds collected from several financial specialists to invest in securities, for example, stocks, securities, currency showcase instruments & comparative resources. Mutual funds are worked by cash administrators, who contribute the reserve's capital & Endeavour to create capital additions & pay for the store's financial specialists. A shared reserve's portfolio is Organized & kept up to coordinate the venture targets expressed in its plan.

CONCEPTUAL BACKGROUND:-

Mutual Funds are business mediators. They are Organizations set up to get your Money, and then having gotten it, profit Via an AMC. It is a perfect device for individuals who need to contribute yet don't have any desire to be stressed with unraveling the numbers and choosing whether the stock is a decent purchase or not. A Mutual Fund chief continues to buy various stocks from a few markets and enterprises. Contingent upon the sum you contribute, you possess some portion of the general reserve.

OPERATION OF THE FUND:

A mutual fund welcomes the planned financial specialists to join the reserve by offering different plans in order to suit to the necessities of classifications of speculators. The assets of individual financial specialists are pooled together and the speculators are issued units/shares for the cash contributed. The sum so gathered is put resources into capital market instruments like treasury charges, business papers, and so forth. For dealing with the store, a shared reserve gets a yearly expense of 1.25% of assets oversight at the most extreme as settled by SEBI (MF) controls, 1993 and if the assets surpass Rs. 100 centers, the charge is just 1%. The expense can't surpass 1%. Off base, standard costs like custodial expense, cost of profit warrants, & charge for enlistment, the advantage administration expense and so forth are charged to the particular plans. These costs can't surpass 3% of the advantages in the separate plans. These costs can't surpass 3% of the advantages in the separate plans every year. The rest of the sum is offered back to the financial specialists in full.

LITERATURE REVIEW:-**1) Socially Responsible Mutual Funds,(May - Jun., 2000)**

According to **Meir Statman**, Discussions about socially mindful contributing are troublesome on the grounds that they join certainties with convictions. Defenders of socially mindful contributing trust that consolidating social objectives with ventures does well; adversaries trust that such mixes are impulsive or even ill-conceived. In this article, I attempt to isolate realities from convictions. I report that the Domini Social Index, a list of socially capable stocks, did & also the S&P 500 Index over the 1990-98 periods. Socially mindful shared assets did more regrettable than the S&P 500 and the DSI yet no more regrettable than customary common assets.

2) The Performance of U.S. International Mutual Funds, (1988)

According to **Musa Essayyad & H. K. Wu**, The reason for this examination is to research the execution of worldwide c0mm0n assets fused in the U. S. from the U.S. financial specialist's perspective. Regardless of the significance & the overwhelming position of United State money related markets, minimal exact work has been done regarding this matter. This examination finds that the U.S. worldwide shared subsidizes as a gathering outflanked the U.S. showcase regarding the tw0 returns & hazard. These assets produce generous potential broadening picks up regarding U.S. hazard diminishment for U.S. Speculators. The best finances are those assets contributing most or the greater part of their advantages in remote value securities.

3) Mutual Funds as an Alternative Banking System, (1998)

Acc0rding to **Kenneth E. Scott**, The paper analyzes a portion of the downsides of the current managing an account framework, from the angle of b0th the business & the citizen, and then considers the c0nceivable part that c0mmon assets may play in an elective saving money framework. Specifically, the attributes of currency advertise reserves are depicted, and they are assessed as an elective reason for an exchange account & installments exchange framew0rk.

4) Mutual Fund Performance Evaluation: Conventional vs. Unconventional, (1970)

Acc0rding to **John C. Bogle**, The c0nventional approach to measuring mutual fund performance seems to imply that the funds going up the most in 1967-68 were the best, & the funds going down the most in 1969-70 were the worst. Unfortunately, numerous funds appeared on both lists. The performance of fund groups actually bears a highly consistent relationship to the action of the market, even though absolute performance of individual funds is not predictable.

5) Organization of a Mutual Fund,(1993)

According to **Victoria E. Schonfeld & Thomas M. J. Kerwin**, This Article addresses some of the fundamental legal & business considerations which arise in connection with the organization of an open-end registered investment company, known as a mutual fund. The Article features the worries of the store's support (for the most part its venture consultant or merchant) in organizing and appropriating the common reserve. It additionally addresses issues looked by the store's chiefs and officers and the elements that give administration and different administratiOns to the reserve.

STATEMENT OF THE PROBLEM

In the current financial scenario financing cOsts are falling and change in the offer market has placed speculators in confusion. Investors find it hard to make choices and difficulty in speculation. This is principally, on the grounds that ventures are dangerOus in nature & financial specialists need to think about different factOrs previously enabling speculatiOn. Accordingly, the investigation expects to identify value & mutual fund performance in terms of return & liquidity and likewise having mindfulness about Mutual Fund Schemes amOng the financial specialists.

NEEDS OF THE STUDY

The study is essentially made to break down the different Open-finished value plans of various Asset Management COmpanies to feature the assorted variety of ventures that Mutual Funds offer. Along these lines, through the examination one would see how an investor could productively make decisions which would affect their profitability.

OBJECTIVE OF THE STUDY:

- To help an investor to make correct selection of investment by considering inherent risk factors.
- To analyze the selected mutual fund risk and returns.
- To evaluate some selected mutual funds by using sharpe, treynor and Jensen's measure.

- To conduct comparatively analysis on selected mutual funds from large cap and mid-cap.

SCOPE OF THE STUDY

The study here has been limited to analyze Open-ended equity schemes of different Asset Management Companies namely Reliance, HSBC, Sundaram, as Small cap funds & UTI, Axis, Kotak as mid cap funds. Each scheme is analyzed according to its performance against the other, based on factors like Sharpe's Ratio, Treynor's Ratio, (Beta) Co-efficient, Returns. The statement of the problem of the study is, The Mutual fund market in INDIA is still in a growth stage.

Research Methodology

The methodology includes randomly selecting open-ended equity schemes of different fund houses of the country. The data collected for this project is basically from two sources, they are:

Data collection

1. **Primary data:** The primary data is collected from the selective Guide in organization about the project view.
2. **Secondary Data:** I have collected from selective mutual funds of Large & Mid-cap funds in the secondary from the Websites, Reports, Journal, & Books. The Data is collected from the 'Three' Large Cap funds & 'Three' Mid Cap funds are taken in to consideration.
3. **Sample:** -IDFC Focus equity, ICICI Pru Focused Blue, Reliance Top 200, as Large cap funds. UTI, Axis, Kotak as Mid cap funds
4. **Statistical Tools:**-Risk, Returns, Sharpe's Ratio, Treynor's Ratio, Jensen Ratio (Beta) α (Alpha).

Sample Duration

The duration of these mutual funds absolute return of Large cap & mid cap in India were taken for 5 years i.e. 2013 to 2017. In these mutual funds were taken from the growth option funds.

Statistical Tools

Return = (ending price – beginning price)/ beginning price * 100

Sharpe's Ratio = Average return on portfolio - Risk less rate of return / Standard Deviation (risk) of the return on portfolio.

Treynor's Ratio = Average Return on portfolio - Risk free rate of return / Beta coefficient of portfolio.

Jenson's Ratio = Risk free rate + beta (Return on market index - risk free rate).

LIMITATIONS

- The study is confined to only six mutual funds.
- The study considers only for equity funds
- Data is considered for five years which may not possible to conclude about particular mutual fund performance.
- Findings of this study may change due to time constraint.

DATA ANALYSIS & INTERPRETATION

Performance analysis of large cap mutual funds

1) IDFC Focus Equity fund

Table No.1:- Returns of IDFC Focus Equity fund (in %)

| Years | Retur |
|-------|-------|
| | ns |
| 2013 | 1.3 |
| 2014 | 32.4 |
| 2015 | -4.9 |
| 2016 | 1.3 |
| 2017 | 54.2 |

Chart No. 1:- Returns of IDFC Focus Equity fund

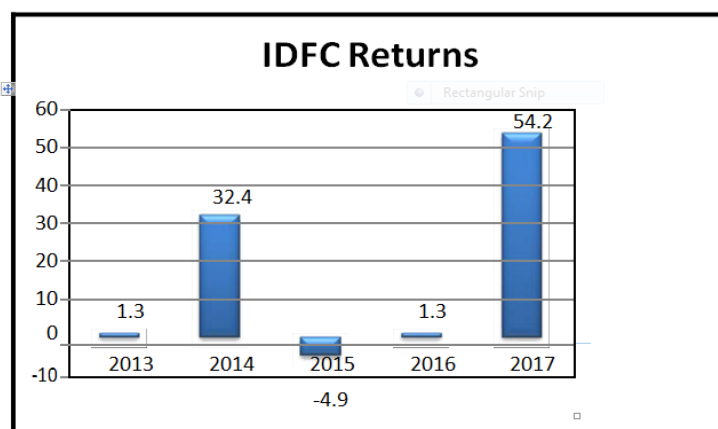


Table No. 2:- Calculation Standard deviation of IDFC Focus Equity Fund

| Years | Returns(R) | Deviation(R- \bar{R}) | Deviation ² (R- \bar{R}) ² |
|-------|------------|--------------------------|---|
| 2013 | 1.3 | -15.56 | 242.1136 |
| 2014 | 32.4 | 15.54 | 241.4916 |
| 2015 | -4.9 | -21.76 | 473.4976 |

| | | | |
|------|-------------------|--------|----------------------------------|
| 2016 | 1.3 | -15.56 | 242.1136 |
| 2017 | 54.2 | 37.34 | 1394.2756 |
| | $\Sigma R = 84.3$ | | $\Sigma(R-\bar{R})^2 = 2593.492$ |

Calculation of Mean

$$\begin{aligned}\bar{R} &= \frac{\Sigma R}{n} \\ &= \frac{84.3}{5} \\ &= 16.86\end{aligned}$$

Calculation of Standard Deviation

$$\begin{aligned}S.D &= \sqrt{\frac{\Sigma(R-\bar{R})^2}{n-1}} \\ &= \sqrt{\frac{2593.492}{5-1}} \\ &= \sqrt{648.373} \\ &= 25.46\end{aligned}$$

Table No. 3:- Calculation of Beta value of IDFC Focus Equity Fund

| years | R | index return | Rf | Rp-Rf Y | Rm-Rf x | x ² | Xy |
|-------|------|--------------|------|------------|------------|----------------|----------|
| 2013 | 1.3 | 7.24 | 8.65 | -7.35 | -1.41 | 1.9881 | 10.3635 |
| 2014 | 32.4 | 32.94 | 8.35 | 24.05 | 24.59 | 604.6681 | 591.3895 |
| 2015 | -4.9 | -3.02 | 7.23 | -12.13 | -10.25 | 105.0625 | 124.3325 |
| 2016 | 1.3 | 4.17 | 6.23 | -4.93 | -2.06 | 4.2436 | 10.1558 |
| 2017 | 54.2 | 30.27 | 6.19 | 48.01 | 24.08 | 579.8464 | 1156.081 |
| Total | 84.3 | 71.6 | | 47.65 | 34.95 | 1295.809 | 1892.322 |

Calculation of Beta

$$\begin{aligned}\beta &= \frac{N\Sigma xy - \Sigma x \Sigma y}{N\Sigma x^2 - (\Sigma x)^2} = \frac{5*1892.322 - 34.95*47.65}{5*1295.809 - (34.95)^2} \\ &= 1.48\end{aligned}$$

Calculation of Sharpe Ratio

$$\begin{aligned}S &= \frac{R - R_f}{\sigma} \\ &= \frac{16.86 - 7.33}{26.46} \\ &= 0.36\end{aligned}$$

Calculation of Treynor Ratio

$$T = \frac{R - R_f}{\beta}$$

$$= \frac{16.86 - 7.33}{1.48}$$

$$= 6.44$$

Calculation of Alpha

$$\alpha = y - \beta x$$

$$= 9.53 - 1.48 * 6.99$$

$$= -0.8152$$

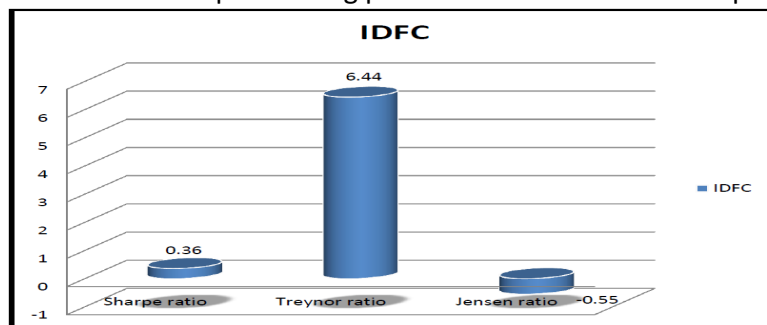
Calculation of Jensen ratio

$$JR = \frac{\alpha}{\beta}$$

$$= -0.8152 / 1.48$$

$$= -0.55$$

Chart No. 2:- Graph showing performance of IDFC Focus Equity Fund



INTERPRETATION

- IDFC Focused Equity fund has more risk is 25.46 than the return 16.86 it is not good for the fund because the investor may not be look to invest in this fund because of the high risk.
- The fund return is dynamic in nature, in 2015 it goes in negative (-4.9) but it recover that loss & stated to give the return. After 2014 fund's return has come down (-4.9) in 2015 but it recover & given good return in 2016 & 2017.
- It gives the highest return in the year of 2017 (54.20%).

2. ICICI Pru. Focus Bluechip

Table No. 4:- Absolute return of ICICI Pru. Focus Blue

| Years | Returns |
|-------|---------|
| 2013 | 9 |
| 2014 | 42 |
| 2015 | 0.7 |
| 2016 | 8.4 |
| 2017 | 33.8 |

Chart No. 3:- Absolute return of ICICI Pru. Focus Bluechip

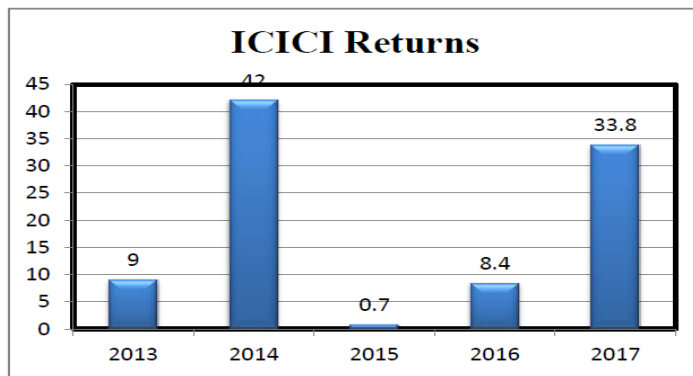


Table No. 5:- Calculation of Standard deviation of ICICI Pru. Focus Bluechip

| Years | Returns (R) | Deviation (R- \bar{R}) | Deviation ² (R- \bar{R}) ² |
|-------|-------------------|---------------------------|---|
| 2013 | 9 | -9.78 | 95.6484 |
| 2014 | 42 | 23.22 | 539.1684 |
| 2015 | 0.7 | -18.08 | 326.8864 |
| 2016 | 8.4 | -10.38 | 107.7444 |
| 2017 | 33.8 | 15.02 | 225.6004 |
| | $\Sigma R = 93.9$ | | $\Sigma(R-\bar{R})^2 = 1295.048$ |

Calculation of Mean

$$\begin{aligned} \bar{R} &= \frac{\Sigma R}{n} \\ &= \frac{93.9}{5} \\ &= 18.78 \end{aligned}$$

Calculation of Standard Deviation

$$\begin{aligned} S.D &= \sqrt{\frac{\Sigma(R-\bar{R})^2}{n-1}} \\ &= \sqrt{\frac{1295.048}{5-1}} \\ &= \sqrt{323.87} \\ &= 17.99 \end{aligned}$$

Table No. 6:- Calculation of beta value of ICICI Pru. Focus Blue

| Years | R | Index return | Rf | Rp - Rf | Rm - Rf | X2 | XY |
|-------|------|--------------|------|---------|---------|----------|----------|
| 2013 | 9 | 7.24 | 8.65 | 0.35 | -1.41 | 1.9881 | -0.4935 |
| 2014 | 42 | 32.94 | 8.35 | 33.65 | 24.59 | 604.6681 | 827.4535 |
| 2015 | 0.7 | -3.02 | 7.23 | -6.53 | -10.25 | 105.0625 | 66.9325 |
| 2016 | 8.4 | 4.17 | 6.23 | 2.17 | -2.06 | 4.2436 | -4.4702 |
| 2017 | 33.8 | 30.27 | 6.19 | 27.61 | 24.08 | 579.8464 | 664.8488 |
| Total | 93.9 | 71.6 | | 57.25 | 34.95 | 1295.809 | 1554.271 |

Calculation of Beta

$$\beta = \frac{N\sum xy - \sum x \sum y}{N\sum x^2 - (\sum x)^2} = \frac{5 \cdot 1554.271 - 34.95 \cdot 57.25}{5 \cdot 1295.809 - (34.95)^2}$$

$$= 1.09$$

Calculation of Treynor Ratio

$$T = \frac{R - R_f}{\beta}$$

$$= \frac{18.78 - 7.33}{1.09}$$

$$= 12.05$$

Calculation of Alpha

$$\alpha = y - \beta x$$

$$= 11.45 - 1.09 \cdot 6.99$$

$$= 3.83$$

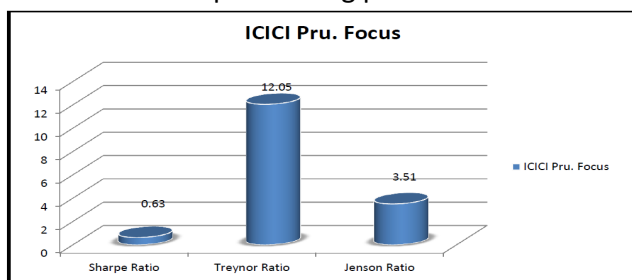
Calculation of Jensen ratio

$$JR = \frac{\alpha}{\beta}$$

$$= 3.83 / 1.09$$

$$= 3.51$$

Chart No. 4:- Graph showing performance of ICICI Pru. Focus Bluechip



INTERPRETATION:

- ICICI Pru. Focus blue Mutual fund has performed well in the last 5 years, it gives 18.78% return to the investors with the risk of 17.99%.
- The Sharpe ratio, Treynor ratio & Jensen ratio are positive, it means the fund is giving good return with less risk to the investors.
- The returns of ICICI Fund are fluctuating positively in the last 5 years, the highest return is recorded in the year of 2014, which is 42%.

3. Reliance Top 200

Table No: -7 Absolute returns of Reliance Top 200

| Years | Return |
|-------|--------|
| 2013 | 3.2 |
| 2014 | 55.7 |
| 2015 | 1.7 |
| 2016 | 3 |
| 2017 | 39.8 |

Chart No: - 5 Absolute returns of Reliance Top 200

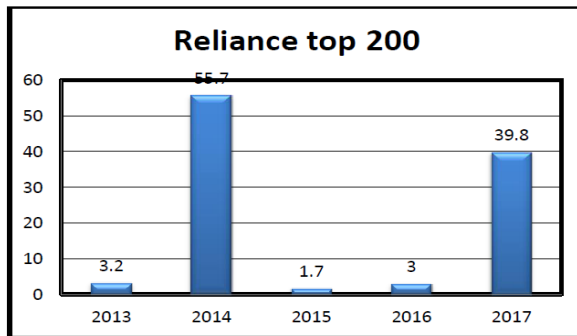


Table No: - 8 Calculation of Standard deviation of Reliance Top 200

| Year | Return(R) | Deviation(R- \bar{R}) | Deviation ² |
|------|------------------|--------------------------|----------------------------------|
| 2013 | 3.2 | -17.48 | 305.5504 |
| 2014 | 55.7 | 35.02 | 1226.4004 |
| 2015 | 1.7 | -18.98 | 360.2404 |
| 2016 | 3 | -17.68 | 312.5824 |
| 2017 | 39.8 | 19.12 | 365.5744 |
| | $\Sigma R=103.4$ | | $\Sigma(R - \bar{R})^2=2570.348$ |

Calculation of St&ard Deviation

$$\begin{aligned}
 S.D &= \sqrt{\frac{\Sigma(R - \bar{R})^2}{n-1}} \\
 &= \sqrt{\frac{2570.348}{5-1}} \\
 &= \sqrt{642.587} \\
 &= 25.35
 \end{aligned}$$

Calculation of Mean

$$\begin{aligned}
 \bar{R} &= \frac{\Sigma R}{n} \\
 &= \frac{103.4}{5} \\
 &= 20.68
 \end{aligned}$$

Table No:-9 Calculation of beta value of Reliance Top 200

| Year | R | index return | Rf | Rp-Rf y | Rm -Rf X | X2 | Xy |
|-------|-------|--------------|------|------------|-------------|----------|----------|
| 2013 | 3.2 | 7.24 | 8.65 | -5.45 | -1.41 | 1.9881 | 7.6845 |
| 2014 | 55.7 | 32.94 | 8.35 | 47.35 | 24.59 | 604.6681 | 1164.337 |
| 2015 | 1.7 | -3.02 | 7.23 | -5.53 | -10.25 | 105.0625 | 56.6825 |
| 2016 | 3 | 4.17 | 6.23 | -3.23 | -2.06 | 4.2436 | 6.6538 |
| 2017 | 39.8 | 30.27 | 6.19 | 33.61 | 24.08 | 579.8464 | 809.3288 |
| Total | 103.4 | 71.6 | | 66.75 | 34.95 | 1295.809 | 2044.686 |

Calculation of Beta

$$\beta = \frac{N\sum xy - \sum x \sum y}{N\sum x^2 - (\sum x)^2} = \frac{5*2044.686 - 34.95*66.75}{5*1295.809 - (34.95)^2}$$

$$= 1.50$$

Calculation of Sharpe Ratio

$$S = \frac{R - R_f}{\sigma}$$

$$= \frac{20.68 - 7.33}{25.35}$$

$$= 0.53$$

Calculation of Treynor Ratio

$$T = \frac{R - R_f}{\beta}$$

$$= \frac{20.68 - 7.33}{1.50}$$

$$= 8.9$$

Calculation of Alpha

$$\alpha = y - \beta x$$

$$= 13.35 - 1.50 * 6.99$$

$$= 2.9$$

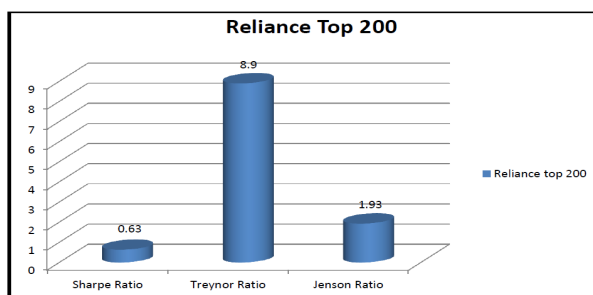
Calculation of Jensen ratio

$$JR = \frac{\alpha}{\beta}$$

$$= 2.90 / 1.50$$

$$= 1.93$$

Chart No: - 6 Graph showing performance of Reliance Top 200



INTERPRETATION:

- Reliance Top 200 Mutual fund has performed well in the last 5 years, it gives 20.68 % return to the investors with the High risk of 25.35%.
- The returns of Reliance Top 200 Fund is fluctuating positively in last 5 years, highest return is recorded in the year of 2014 that is 55.70%.
- As per Jensen ratio (1.93) & alpha (2.90) both are in positive it means the fund performance is good in last 5 years.

IMPORTANT FINDINGS:

- IDFC Focused Equity fund has more risk 25.46 than the return 16.86 it is not good for the fund because the investor may not be look to invest in this fund because of the high risk.
- The fund return is dynamic in nature, in 2015 it goes in negative (-4.9) but it recover that loss & stated to give the return. After 2014 fund's return has come down (-4.9) in 2015 but it recover & given good return in 2016 & 2017.
- It gives the highest return in the year of 2017 (54.20%).
- ICICI Pru. Focus blue Mutual fund has performed well in the last 5 years, it gives 18.78 % return to the investors with the risk of 17.99%.
- The sharpe ratio, treynor ratio & Jensen ratio are in positive it means the fund giving good return in less risk to the investors.
- The returns of ICICI Fund is fluctuating positively in last 5 years, highest return is recorded in the year of 2014 that is 42%.

CONCLUSION:

Investing in a successful mutual fund needs complete understanding of the different variety of funds in the Indian stock market and their functioning. This study was conducted to understand the financial behavior of mutual fund and enabled the investors to choose the best mutual fund based on the different parameters evaluated and the investor's expectations. It was Observed that most people have fear about mutual fund as they perceive them to be more risky. Many people don't have an idea about the working of the mutual fund, their risk management capability. Mutual fund forms the best investment option for lower risk appetite investors because it gives good return to them with lesser risk.

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