

# Investment Performance of Equity-Linked Saving Schemes – An Empirical Study

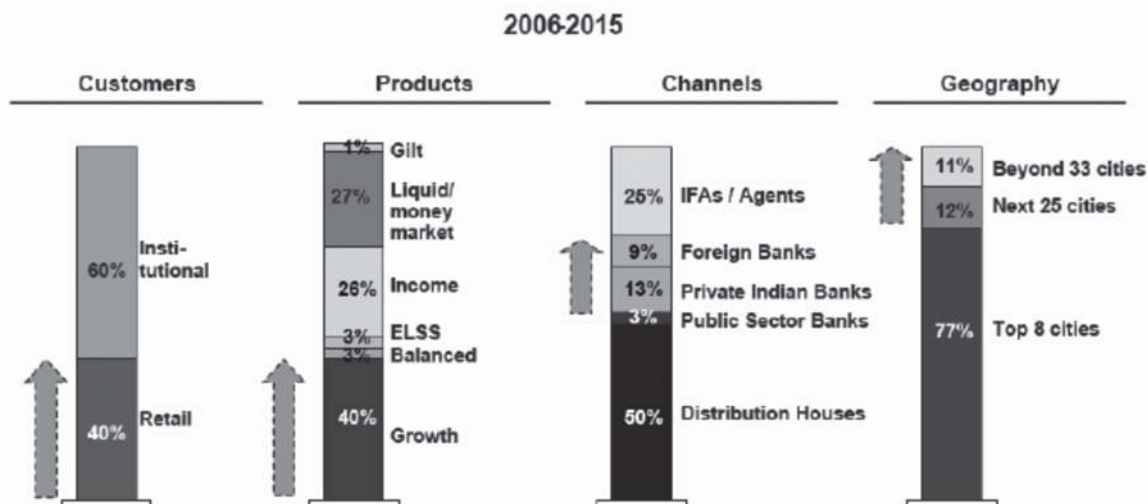
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## INTRODUCTION

India by 2032 will become the third largest economy in the world, as reported by Goldman Sachs in their Wealth Report. India's domestic savings as a percentage of its GDP is 28%, one of the highest in the world. A significant proportion of this saving is in the form of investment avenues like gold, fixed deposits, insurance, Mutual Funds and capital markets. Investments in equities have shown better results and have the potential to grow in the long run which can be an ideal approach to adjust inflation and provide an opportunity for capital appreciation, provided the investors are high on risk. The majority of Indian investors considerably have a low risk appetite, on an average. The only option left for the investor is the Mutual Fund Industry which has dual advantage of investing in equity and getting good returns with optimum risk.

The Indian Mutual Fund Market is in the process of evolving and the statistics on various parameters like Number of Customers, Types of Products, Types of Channels, and Geographical Locations along with the projections till 2015, as projected by HDFC, are given in the following figure:

**Figure 1: Statistics of Mutual Fund Investors on Number of Customers, Types of Products, Types of Channels, and Geographical Locations along with Projections**



Source: HDFC Website

The Figure - 1 indicates the forecast composition of Number of Customers, Types of Products (Funds), Type of Channels used to market the funds and the probable increase in investors with increase in population and change in Geography of the country. By 2015, it was projected that the size of potential investors will increase to Rs. 30 crores and the assets under management estimated to reach USD 300 billion.

Mutual Funds help the investors to benefit by diversifying into wide spectrum of companies with small investments managed by professionals having expertise and experience. The portfolio is decided by taking into consideration the risk appetite of the investor. Markets are analyzed completely to pick good investment opportunities. Mutual Fund companies also provide regular updates to investors on the value of their investments. SEBI governs the mutual funds industry and the industry functions within the strict regulations designed to protect the interests of the investor.

## REVIEW OF LITERATURE

Gordon J. Alexander, Jonathan D. Jones and Peter J. Nigro (1997) analyzed the various characteristics and investment

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knowledge of investors in a telephonic survey of 2000 Mutual Fund investors. Results showed that the overall investors are knowledgeable about costs, risk and returns associated with Mutual Funds. The result suggested that there is no much room for improvement in investor education for a larger segment of investors. Edward S. O. Neal (2002) evaluates the performance of select Mutual Funds from 1999-2001 and the implications of the dividend policy was correlated with the performance of the Mutual Funds.

Bala Ramaswamy and Mathew C. H. Yeung (2003) evaluated the Mutual Funds in an emerging market like Malaysia. A questionnaire was administered to financial advisors on few attributes of Mutual Funds like past performance of funds, Qualification of fund manager, Experience of fund manager, Investment style of fund manager, Size of funds, Affiliation of Mutual Funds, Number of funds managed and Cost of transaction. The research article surveyed the relative importance of factors considered important in the selection of Mutual Funds in the emerging markets like Malaysia. John N. Sorros (2003) evaluated the risk and return of equity Mutual Funds operating in the Greek financial market over the period 1995-1999. The Mutual Funds were ranked on the basis of return, total risk, coefficient of variation, systematic risk and techniques of Sharpe and Treynor Ratios.

Brian J. Glenn (2004) examined the performance of open-ended and close-ended Mutual Funds, the difference between the two. Their impact upon the performance i.e. NAV and its volatility was also examined.

Athanasious G. Noulas, John A. Papanastasiou and John Lazaridis (2005) evaluated the performance of 23 equity funds during the year 1997-2000 in Greece. The performance evaluation was based on measuring risk and return using Treynor, Sharpe and Jensen techniques. The study proves that the investor needs to know the long term behavior of Mutual Funds in order to make the right decision. The study showed that equity funds neither have the same risk nor the same returns.

David Marenco, Rosa Rodriguez (2006) examined the performance of Spanish Mutual Fund during 1999-2003. The author has added a new dimension (stochastic discount factor) to evaluate the funds' performance.

Abundance of research was done in the past to evaluate the performance of Mutual Funds in various countries using techniques of risk and return not much of a research appears to have been done from the perspective of evaluation of tax saving schemes especially the equity-linked saving schemes. An attempt has been made in this paper to study the performance of equity-linked saving schemes.

## **OBJECTIVES OF THE STUDY**

- To compare equity-linked saving schemes with other traditional forms of tax saving schemes.
- To analyze the equity-linked saving schemes picked at random on the basis of risk and return.
- To understand the level of awareness regarding the Mutual Funds among the Indian salaried class and the various factors that influence individual investors to invest in equity-linked saving schemes.

## **METHODOLOGY**

This study was divided into two parts, wherein, the first part of the study focuses on the various tax saving options available to the investor and focus was on analyzing the performance of equity-linked saving schemes and the latter part of the study was based on a survey which was conducted using a structured questionnaire to study the awareness level of the investors regarding Mutual Funds.

A sample of 16 equity-linked saving schemes rated by CRISIL was selected and the performance of these schemes with respect to risk and returns was analyzed. Risk is measured using the parameters like Sharpe Ratio, Standard Deviation, Beta Alpha and R-squared. Cluster Analysis, a Multivariate Statistical Tool was used to cluster the funds into groups based on various parameters and analyzed. Secondary data was collected by visiting various websites of the Asset Management Companies, articles available on the web, investment magazines and fact sheets of the asset management companies.

A questionnaire was administered for the purpose of primary data with an objective to understand the level of awareness among the investors regarding the different equity-linked savings schemes available in the Indian Mutual Fund industry and the factors considered by investors while investing in a Mutual Fund. The sample size of 75 salaried class respondents in Delhi was selected for the purpose of the study.

In this study, the principal efforts have been to empirically test the performance of the Indian tax savings funds with respect to the various performance measures with an underlying motive of helping the investors to choose the fund that suits them the best in terms of their risk appetite.

## **HYPOTHESIS**

Ho: There is no significant difference in the risk-returns matrix of all the Equity-Linked Saving Schemes

Ha: There is a significant difference in the risk-returns matrix of all the Equity-Linked Saving Schemes

## LIMITATIONS OF THE STUDY

1. The comparison of the funds was mainly dependent on the information collected from secondary data i.e., fact sheets of various funds and from websites like value research online. There could be a possibility of error in the secondary data.
2. The results are generalized to all the Equity-Linked Saving Schemes though the comparison was done for few schemes.

## ANALYSIS & FINDINGS

### Part A - Analysis of Returns & Risk (based on Secondary Data)

Equity-Linked Saving Schemes were introduced in 1992 by the Government to encourage participation from middle-class investors to invest in capital market by giving a tax saving option. These funds may be open or close ended and may offer dividend and growth options. The 5-year Compounded Annual Growth Rate (CAGR) of the equity-linked saving schemes has been 39.11 % as on June 2008 much above any traditional tax saving instruments. There is also an option of investing in equity-linked saving schemes through systematic investment plan where the investor can invest a small amount every month for a specific time period. The fluctuations in the NAV and the market are taken care while investing a fixed sum regularly.

The portfolio composition of equity-linked savings scheme is as follows:

**Table: 1 Sector-wise Portfolio Composition of Equity-Linked Saving Schemes**

| Sector             | Investment (in Percentage) |
|--------------------|----------------------------|
| Financial Services | 33                         |
| Energy             | 26                         |
| Technology         | 26                         |
| Metals             | 5                          |
| Basic Engineering  | 5                          |
| Diversified        | 3                          |

From the above table, it can be inferred that the major investment is in the financial services followed by energy and technology sector.

**Table: 2 ELSS vs. Other Tax Saving Investment Options**

| Particulars                              | PPF             | NSC                          | ELSS                               | Bank Deposits                              | ULIP                          |
|--|-----------------|------------------------------|------------------------------------|--|-------------------------------|
| Lock-in period in years                  | 15              | 6                            | 3                                  | 5  | 5                             |
| Minimum Investment in Rs                 | 500             | 100                          | 500                                | 1000<br>(Nationalised)<br>10,000 (Private) | 10,000                        |
| Maximum Investment in Rs As per Sec80(c) | 70,000          | 1,00,000                     | 1,00,000                           | 1,00,000                                   | 1,00,000                      |
| Rate of Return                           | 8,000 per annum | 8,000 compounded half yearly | Market linked 30.01*               | 9.00                                       | Market linked <sup>28</sup> * |
| Taxation of Returns                      | Tax free        | Taxable                      | Dividends & Capital gains tax free | Taxation of interest                       | Capital gains tax free        |

SOURCE:ICRA

\* As on 31 March 2008

### Advantages of ELSS over Traditional Tax -Saving Funds

- Equity-Linked Savings Schemes has greater liquidity compared to traditional tax saving instruments as the lock-in period is only 3 years. Maturity period of NSC is 6 years and PPF is 15 years.
- Equity-Linked Savings Schemes is equity related instrument and they have the greatest potential to earn more return than any other traditional government backed instruments.
- Investor can also opt for dividend option and get some gains during the lock-in period.
- Investor can opt for Systematic Investment Plan by investing small amount on a regular basis.
- Some Equity-linked Savings Schemes also offer personal accident death cover insurance.
- Under Sec. 80C of Income Tax Act, an investor can invest an amount of Rs. 1, 00,000 and still can save tax on capital appreciation and dividends earned.
- Provides 30% to 40% returns compared to 8% in traditional tax saving funds like NSC & PPF.

### Advantages of Traditional tax saving funds over ELSS

- Risk factor is high compared to traditional funds which are government backed
- Premature withdrawal is not allowed in Equity-linked Savings Schemes but it is allowed in other instruments in some specific conditions

**Table:3 Comparison of ELSS funds on the basis of Returns**

| SI No | FUND                           | 1 year      | 2 year      | 3 year      | 5 year      | Since Inception |
|-------|--------------------------------|-------------|-------------|-------------|-------------|-----------------|
|       | <b>S&amp;P CNX Nifty</b>       | <b>-6.4</b> | <b>13.7</b> | <b>22.1</b> | <b>28.9</b> |                 |
| 1     | Birla Sunlife Tax Plan         | -19.7       | 10.2        | 19.8        | 35.4        | 26.6            |
| 2     | Birla Sun Life Tax Relief 96   | -17.8       | 13.5        | 21.4        | 31.3        | 34.2            |
| 3     | BOB ELSS 96                    | -11.6       | 9.8         | 13.6        | 29.0        | 14.7            |
| 4     | Canara Robeco Equity Tax Saver | -11.6       | 15.8        | 24.5        | 30.5        | 13.8            |
| 5     | Escorts Tax Plan               | -8.2        | 14.2        | 24.9        | 32.4        | 20.0            |
| 6     | Franklin India Tax Shield      | -10.2       | 9.9         | 19.5        | 33.5        | 31.5            |
| 7     | HDFC LT Advantage              | -15.5       | 7.1         | 16.9        | 36.4        | 33.0            |
| 8     | HDFC Tax Saver                 | -19.2       | 4.8         | 17.4        | 38.7        | 35.5            |
| 9     | ICICI Prudential Tax Plan      | -10.5       | 6.9         | 16.0        | 38.4        | 27.0            |
| 10    | Magnum Tax Gain                | -12.0       | 14.6        | 24.4        | 53.9        | 19.5            |
| 11    | Principal Personal Tax Saver   | -10.2       | 21.3        | 24.6        | 34.1        | 28.7            |
| 12    | Principal Tax Savings          | -16.5       | 15.4        | 25.5        | 37.3        | 21.0            |
| 13    | Sundaram BNP Paribas Tax Saver | 2.5         | 19.5        | 28.0        | 41.6        | 23.0            |
| 14    | TATA Tax Saving                | -16.5       | 8.0         | 14.5        | 32.3        | 23.0            |
| 15    | Taurus Libra Tax Shield        | 12.0        | 22.1        | 12.0        | 27.2        | 10.5            |
| 16    | UTI Equity Tax Savings         | -7.4        | 9.3         | 15.2        | 29.7        | 19.8            |

**NOTE: Returns calculated considering NAV as on 30<sup>th</sup> June 2008 in percentages**

### SOURCE: Mutual Fund Insight

Out of total population of 30 equity-linked saving schemes, 16 funds which are rated by CRISIL are selected. Performance and suitability for investment can be evaluated on the basis of returns. ELSS funds have a 3 year lock-in period from the date of allotment of units. The units can be redeemed after the 3 year period at the applicable Net Asset Value (NAV) on a business day. So evaluating the funds on the basis of returns they provide in less than three years is not appropriate and their returns for 3 years and above should be evaluated. The returns are calculated based on NAV of the funds. S&P CNX Nifty is taken as a benchmark to evaluate the performance of these funds.

Using Cluster Analysis, a Multivariate Statistical Tool, all the 16 funds were classified into three clusters based on 3-year Returns. The final cluster centers, after all iterations, along with the number of funds in each cluster are computed using SPSS.

**Table: 4 Stratification based on 3-Year Returns**

|        | Cluster |      |      |
|--------|---------|------|------|
|        | 1       | 2    | 3    |
| 3 year | 19.0    | 25.3 | 14.3 |

Source: SPSS Output

### Number of Cases in each Cluster

| Cluster | 1 | 5.000  |
|---------|---|--------|
|         | 2 | 6.000  |
|         | 3 | 5.000  |
| Valid   |   | 16.000 |
| Missing |   | .000   |

Based on average cluster centre, the best performing funds are Sundaram BNP Paribas Tax Saver, Principal Tax Savings, Escorts Tax Plan, Principal Personal Tax Saver and Canara Robeco Equity Tax Saver which forms the second cluster. The average performing funds are Birla Sunlife Tax Relief 96, Birla Sunlife Tax Plan, Tata Tax Saving, HDFC Tax Saver & HDFC Tax Advantage which constitutes the first cluster.

The under performed funds are Taurus Libra Tax Shield, BOB ELSS 96, Tata Tax Saving, UTI Equity Tax Saving & ICICI Prudential Tax Plan.

**Table: 5 Stratification Based on 5-Year Returns**

|        | Cluster |      |      |
|--------|---------|------|------|
|        | 1       | 2    | 3    |
| 5 year | 38.0    | 53.9 | 31.1 |

**Number of Cases in each Cluster**

| Cluster | 1 | 6.000  |
|---------|---|--------|
|         | 2 | 1.000  |
|         | 3 | 9.000  |
| Valid   |   | 16.000 |
| Missing |   | .000   |

Source: SPSS Output

Using Cluster Analysis, a Multivariate Statistical Tool, all the 16 funds were classified into three clusters based on 5-year returns. The final cluster centers, after all iterations, along with the number of funds in each cluster are computed using SPSS. Based on average cluster centre, the best performing fund is Magnum Tax Gain that has been continuously performing well with a return of 54%. This fund was launched in March 1993, and since then, the fund has provided a return of 19.5%. The fund has its major investment in the financial services sector which is one of the reasons for its present performance. SBI Magnum Tax Gain has Rs. 3190 crores as its Assets under Management (AUM) out of which 87.2% are invested in stocks, 11.4% in bonds and only 1.4% as cash to meet their expenses. It is observed that most of the funds performing well have their major investment in energy, technology and financial services sector. The worst hit funds are Taurus Libra Tax Shield, BOB ELSS 96, UTI Equity Tax Saving, Canara Robeco Equity Tax Saver, Birla Sunlife Tax Relief 96, Tata Tax Saving, Principal Personal Tax Saver, Principal Tax Savings, Sundaram BNP Paribas Tax Saver & Escorts Tax Plan which were doing well at the end of 3 years could not sustain their performance and have no given exceptional returns at the end of 5 years. Taurus Libra Tax Shield fund is a fund which gave the best returns for the time span of 3 months to 1 year. This fund is not able to provide the same type of returns in a longer time span i.e. of 3 years and above which is considered important while evaluating the performance of the tax savings instruments. This fund stands in the last position with a 5 year return of 27.2 % as compared to the other funds. Taurus Libra Tax Shield has kept 11% as cash to meet their expenses and have invested the rest of their AUM in stocks.

**Table: 6 Stratification Based on Returns since Inception**

|                 | Cluster |      |      |
|-----------------|---------|------|------|
|                 | 1       | 2    | 3    |
| Since Inception | 22.5    | 32.6 | 13.0 |

**Number of Cases in each Cluster**

| Cluster | 1 | 8.000  |
|---------|---|--------|
|         | 2 | 5.000  |
|         | 3 | 3.000  |
| Valid   |   | 16.000 |
| Missing |   | .000   |

Source: SPSS output

Using Cluster Analysis, a Multivariate Statistical Tool, all the 16 funds were classified into three clusters based on Returns since Inception. The final cluster centers, after all iterations, along with the number of funds in each cluster are computed using SPSS. Based on average cluster centre, the best performing funds which have given good returns on an average since inception as on June 30<sup>th</sup>, 2008 are Birla Sunlife Tax Relief 96, Franklin India Tax Shield, HDFC LT Advantage, HDFC Tax Saver & Principal Personal Tax Saver. Magnum Tax Gain is the best performing fund and the constant winner is not in the best performing funds since inception since it did not give good returns in the first year of inception which pulled the total returns. But an ELSS fund is evaluated based on 3-year return and above as there is a lock-in period of 3 years.

A fund's performance can only be judged in relation to investors expectations i.e., it should be judged against how the overall stock market performed i.e., S&P CNX Nifty. When 3-year return is considered, few funds have out performed the sensex like Canara Robeco Equity tax saver, Escorts Tax Plan, Magnum Tax Gain, Principal Personal Tax Saver, Principal Tax Savings and Sundaram PNB Paribas Tax Saver. When it comes to 5 year returns, all the funds have out performed the sensex except Taurus Libra Tax Shield. It also signifies that the equity-linked tax saving schemes perform well in the long run.

**Table: 7 Comparison of ELSS funds on the Basis of Risk**

| SI NO | FUND                           | Standard Deviation | Beta | R-Squared | Sharpe Ratio | Alpha |
|-------|--------------------------------|--------------------|------|-----------|--------------|-------|
| 1     | Birla Sunlife Tax Plan         | 28.6               | 0.9  | 0.8       | 0.60         | -0.42 |
| 2     | Birla Sun Life Tax Relief 96   | 31.7               | 1.1  | 0.9       | 0.62         | -0.50 |
| 3     | BOB ELSS 96                    | 28.4               | 1.0  | 0.9       | 0.42         | -6.45 |
| 4     | Canara Robeco Equity Tax Saver | 30.9               | 1.0  | 0.8       | 0.71         | 2.97  |
| 5     | Escorts Tax Plan               | 27.7               | 0.9  | 0.9       | 0.77         | 3.54  |
| 6     | Franklin India Tax Shield      | 27.4               | 0.9  | 0.9       | 0.61         | -1.25 |

|    |                                |      |     |     |      |       |
|----|--------------------------------|------|-----|-----|------|-------|
| 7  | HDFC LT Advantage              | 24.0 | 0.8 | 0.8 | 0.56 | -1.23 |
| 8  | HDFC Tax Saver                 | 27.1 | 0.9 | 0.8 | 0.55 | -2.52 |
| 9  | ICICI Prudential Tax Plan      | 30.6 | 0.9 | 0.7 | 0.47 | -3.08 |
| 10 | Magnum Tax Gain                | 26.8 | 0.9 | 0.8 | 0.77 | 3.65  |
| 11 | Principal Personal Tax Saver   | 30.9 | 0.9 | 0.7 | 0.71 | 4.35  |
| 12 | Principal Tax Savings          | 31.9 | 1.0 | 0.8 | 0.72 | 3.31  |
| 13 | Sundaram BNP Paribas Tax Saver | 30.0 | 1.0 | 0.9 | 0.81 | 5.22  |
| 14 | TATA Tax Saving                | 28.8 | 0.9 | 0.8 | 0.44 | -5.16 |
| 15 | Taurus Libra Tax Shield        | 36.2 | 1.0 | 0.6 | 0.35 | -6.76 |
| 16 | UTI Equity Tax Savings         | 26.7 | 0.9 | 0.9 | 0.48 | -4.70 |

**SOURCE: Mutual Fund Insight**

The comparison of funds on the basis of returns gives an incomplete picture of the performance of the funds. So it is necessary to relate the returns of these funds with their risk parameters like Standard Deviation, Beta, Alpha and R-squared. From Table 7, it was observed that the standard deviation of HDFC Long term Advantage fund has the least volatility. The portfolio of SBI Magnum Tax Gain has also got low volatility as compared to the other funds.

**Table: 8 Stratification based on Standard Deviation**

|                    | Cluster |      |      |
|--------------------|---------|------|------|
|                    | 1       | 2    | 3    |
| Standard Deviation | 27.3    | 31.0 | 36.2 |

**Number of Cases in each Cluster**

| Cluster | 1 | 9.000  |
|---------|---|--------|
|         | 2 | 6.000  |
|         | 3 | 1.000  |
| Valid   |   | 16.000 |
| Missing |   | .000   |

**Source: SPSS output**

Using Cluster Analysis, a Multivariate Statistical Tool, all the 16 funds were classified into three clusters based on Standard Deviation. The final cluster centers, after all iterations, along with the number of funds in each cluster are computed using SPSS. Based on average cluster centre, the best funds with least standard deviation is cluster 1 which has funds like HDFC LT Advantage, Magnum Tax Gain, UTI Equity Tax Savings, Franklin India Tax Shield, Tata Tax Saving, Escorts Tax Plan and HDFC Tax Saver. The most risky fund with the highest standard deviation is Tata Taurus Tax Fund which clearly indicates that the returns of this fund are deviating from its expected returns.

**Table: 9 Stratification Based on Beta**

|      | Cluster |     |     |
|------|---------|-----|-----|
|      | 1       | 2   | 3   |
| Beta | .9      | 1.1 | 1.0 |

**Number of Cases in each Cluster**

| Cluster | 1 | 10.000 |
|---------|---|--------|
|         | 2 | 1.000  |
|         | 3 | 5.000  |
| Valid   |   | 16.000 |
| Missing |   | .000   |

**Source: SPSS output**

Using Cluster Analysis, a Multivariate Statistical Tool, all the 16 funds were classified into three clusters based on Beta. The final cluster centers, after all iterations, along with the number of funds in each cluster are computed using SPSS. Based on average cluster centre, the best funds with low Beta are Escorts Tax Plan, Franklin India Tax shield, HDFC LT Advantage, ICICI Prudential Tax Plan, Magnum Tax Gain, UTI Equity Tax Savings, Tata Tax Saving, Escorts Tax Plan and HDFC Tax Saver. Birla Sunlife Tax Relief 96 is the most aggressive fund in the sample of funds chosen with beta of 1.1 and its highest sector allocation is energy. Funds sensitivity to market movements can be measured using Beta. But Beta is not meaningful if the R- squared of the fund is low.

**Table: 10 Stratification based on R-Squared**

|           | Cluster |    |    |
|-----------|---------|----|----|
|           | 1       | 2  | 3  |
| R-Squared | .6      | .8 | .7 |

**Number of Cases in each Cluster**

| Cluster | 1 | 1.000  |
|---------|---|--------|
|         | 2 | 13.000 |
|         | 3 | 2.000  |
| Valid   |   | 16.000 |
| Missing |   | .000   |

**Source: SPSS output**



R-squared measures the fund's correlation to the market index. Using Cluster Analysis, a Multivariate Statistical Tool, all the 16 funds were classified into three clusters based on R-Squared. The final cluster centers after all iterations, along with the number of funds in each cluster are computed using SPSS. Based on the average cluster center, Birla Sun Life Tax Plan, Birla Sun Life Tax Relief 96, Escorts Tax Plan, Franklin India Tax Shield, Sundaram BNP Paribas Tax Saver, BOB ELSS 96 and UTI Equity Tax Savings have correlation with the index and their Beta can be trusted.

Sharpe Ratio brings all funds to an even level, as it indicates to the investor whether the excess returns earned are due to smart investment decisions or due to excess risk taken by the fund manager. The Sharpe Ratio is low as in the case of Taurus Libra tax Shield, BOB ELSS 96, ICICI Prudential Tax Plan, Tata Tax Saving and UTI Equity Tax Saving means that for a given level of risk, the additional return earned or the risk premium is less. It is preferable for the investor to select a fund with a higher Sharpe ratio like Magnum Tax Gain, Principal Tax Savings, Sundaram BNP Paribas Tax Saver and Escorts Tax Plan as they ensure higher returns for the risk the investor takes provided the investor has a high risk appetite.

**Table 11: Stratification Based on Sharpe Ratio**

|              | Cluster |   |   |
|--------------|---------|---|---|
|              | 1       | 2 | 3 |
| Sharpe Ratio | 6       | 7 | 4 |

**Number of Cases in each Cluster**

| Cluster | 1      | 5.000 |
|---------|--------|-------|
|         | 2      | 6.000 |
|         | 3      | 5.000 |
| Valid   | 16.000 |       |
| Missing | .000   |       |

Source: SPSS Output

Using Cluster Analysis, a Multivariate Statistical Tool, all the 16 funds were classified into three clusters based on Sharpe Ratio. The final cluster centers, after all iterations, along with the number of funds in each cluster are computed using SPSS. Cluster 2 are the funds with high Sharpe Ratio with better risk adjusted performance which include Canara Robboco Equity Tax Saver, Escorts Tax Plan, Magnum Tax Gain, Principal Personal Tax Saver, Principal Tax Savings and Sundaram BNP Paribas Tax Saver.

**Table: 12 Stratification based on Alpha**

|       | Cluster |       |       |
|-------|---------|-------|-------|
|       | 1       | 2     | 3     |
| Alpha | 3.84    | -1.50 | -5.77 |

**Number of Cases in each Cluster**

| Cluster | 1      | 6.000 |
|---------|--------|-------|
|         | 2      | 6.000 |
|         | 3      | 4.000 |
| Valid   | 16.000 |       |
| Missing | .000   |       |

Source: SPSS output

Using Cluster Analysis, a Multivariate Statistical Tool, all the 16 funds were classified into three clusters based on Alpha. The final cluster centers, after all iterations, along with the number of funds in each cluster are computed using SPSS. Based on average cluster centre, the six best performing funds formed under the first cluster. They are Canara Robboco Equity Tax Saver, Escorts Tax Plan, Magnum Tax Gain, Principal Personal tax Saver, Principal Tax Savings and Sundaram BNP Paribas Tax Saver. These funds have outperformed the risk taken by investors.

With respect to returns and risk, this study favors SBI Magnum Tax Gain as an appropriate fund to make investment, as it provides the highest returns with a proportionate risk grade relative to all other equity-linked saving schemes.

The null- hypothesis that there is no significant difference in the equity-linked saving schemes and they have the same risk and return matrix is rejected. It is proved that all the equity linked saving schemes have different risk and return parameters and therefore, it is imperative that the investor considers his risk appetite and decides the fund to be invested. On the basis of the comparison of the selected funds, it is recommended to the investors to invest in **SBI Magnum Tax Gain** as it has outperformed the other tax saving funds. It provides the investor with high risk adjusted returns.

## **PART B: ANALYSIS BASED ON QUESTIONNAIRE**

The analysis of the questionnaire showed the following results:

- 85% of the respondents are aware of Mutual Funds and invest in the various instruments available in the market.
- The main motive for 50% of the salaried class respondents is tax minimization on the capital appreciation, 20% of the respondents preferred returns and 15% of the respondents preferred to save for post retirement requirements.
- 40% of the respondents preferred bank deposit as a mode of tax saving investment as long term bank deposits are tax saving instruments. It is also one of the reasons why banks are successful in marketing Mutual Funds as the investors have a lot of faith in banks. 32% of the respondents preferred government securities.

- 12% of the respondents have invested in Mutual Funds but do not know much about how it works. They have knowledge just required for investment purposes.
- 64% of the salaried class people have not invested in the equity-linked saving schemes not knowing much about its benefits.
- 53% of the investors are willing to invest more in these schemes if they get complete knowledge and guidance from the companies. So efforts should be taken by companies to create awareness about these funds.
- 45% of the investors select a fund based on the Net Asset Value of the fund, 40% of the investors based on returns projected by companies and 35% of them based on brand name and reputation of the AMC and their track record while investing in Mutual Funds. 10% of the respondents only looked for the charges applicable like the entry and the exit loads. As long as the fund is performing well and giving good returns, they are not much worried about it.
- 27% of the total respondents want to continue with the scheme because of the lock-in period and entry loads.

## CONCLUSION

The study is about understanding and comparing the various tax saving instruments in the market with focus on the equity-linked saving schemes. The performance of various funds is evaluated using various parameters of risk and return and comparing their performance with its benchmark S&P CNX Nifty. It is just not the past performance or returns, but qualitative criteria like reputation and performance of fund house, Credentials and expertise of the fund manager and the other funds managed by him. Finally, the fund chosen by the investor should match the risk appetite of the investor. It is suggested that the equity-linked saving schemes should be seriously considered by investors because of the dual advantage of tax savings and high returns.

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