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## A STUDY ON SELECTION PROCESS MUTUAL FUND - WITH REFERENCE TO BALANCED FUNDS

### Article Particulars

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### Abstract

*This study aims to bring out the selection process of the best equity fund. Four popular funds – Birla balanced fund, HDFC balanced fund, ICICI Prudential balanced fund, Sundaram BNP Paribas balanced fund – are considered for the study. As Sundaram Paribas had highest Absolute return among the four funds, its growth potential was analyzed with Sharpe, Treynor and Jensen Ratio. These ratios confirm its growth potential, hence Sundaram Paribas balanced Fund is selected as the best among the four.*

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### Introduction

Small investors face a lot of problem in the stock market. Limited resources, lack of professional advice, lack of information, etc. Mutual funds have come as a much needed help to these investors. It is a special type of institutional device or an investment vehicle through which the investors pool their savings which are to be invested under the guidance of a team of experts in wide variety of portfolios of corporate securities in such a way, so as to minimize risk while ensuring safety and steady return on investment. It forms an important part of the capital market, providing the benefits of a diversified portfolio and expert fund management to a large number, particularly small investors. Hence the study is undertaken.

### Methodology

The study covers a period of 3 years from 2014 to 2017. NAV of the schemes are considered for estimating the performance of schemes. Secondary data is collected from websites.

## Tools for analysis

### Net Asset Value (NAV)

It is calculated simply by dividing the net asset value of the fund by the number of units. In other words, if the fund is dissolved or liquidated, by selling off all the assets in the fund, this is the amount that the shareholders would collectively own.

### BETA

It describes the relationship between the stock's return and the index returns. Beta of more than 1 will rise more than the market and also fall more than market. Similarly, a low-beta fund will rise less than the market on the way up and lose less on the way down.

$$\beta = \frac{n\sum xy - (\sum x)(\sum y)}{n\sum x^2 - (\sum x)^2}$$

Where,

n – Number of days

x – Returns of the index

y – Returns of the fund

### ALPHA

It indicates that the stock return is independent of the market return. If the portfolio is well diversified, the alpha value would turn out to be zero. A passive fund has an alpha of zero. Positive alpha implies that a fund has performed better than expected

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

Where,

y – Mean value of returns of the fund

x – Mean value of returns of the index

$\beta$  – Beta value of the fund

### Correlation Co-Efficient

It measures the nature and the extent of relationship between the stock market index returns and a fund's return in a particular period.

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{n\sum x^2 - (\sum x)^2} \sqrt{n\sum y^2 - (\sum y)^2}}$$

### Co-Efficient of Determination

The square of correlation of co-efficient is the co-efficient of determination. It gives the percentage variation in the stock's return explained by the variation in the market return.

$$r^2$$

### Treynor's Ratio

The Treynor Ratio, helps analyze returns in relation to the market risk of the fund. Higher the Treynor Ratio, the better the performance under analysis. It is a ratio that

helps to determine the excess return generated as the difference between the fund's return and the risk free return.

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

Where,

R – Return on investment.

RFR – Risk Free Return

**Sharpe's Ratio**

Sharpe's ratio is similar to treynor's ratio the difference being, instead of beta here we take standard deviation. As standard deviation represents the total risk experienced by the fund. A higher Sharpe's ratio is better

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

**Return**

A return is a measurement of how much an investment has increased or decreased in value over any given time period.

**Formula**  

$$\frac{P1 - p0}{P0}$$

**Jensen Ratio (JR)**

A risk-adjusted performance measure that represents the average return on a portfolio over and above the predicted value

$$\text{Jensen Ratio (JR)} = \frac{\alpha}{\beta}$$

**Data Analysis**

**Table: 1 Balanced Fund - Comparison of Return**

Company Name and fund	Absolute return	Mean return	Standard Deviation	Variance
Birla Balance Fund - Growth	0.107463	0.00066	0.013267	0.000176
HDFC Balanced Fund - Growth	0.03934	0.000312843	0.013947	0.000194
ICICI Prudential Balanced - Growth	0.134518	0.000848329	0.016753	0.000280
SUNDARAM BNP Paribas balance fund-Growth	0.258134	0.001404	0.015584	0.000243

The above table indicates that sundaram BNP Paribas has highest absolute return. Hence it is selected among the four, for further analysis.

**Table: 2 Sundaram BNP Paribas Balanced Fund**

DATE	S&P	RETURN	NAV	RET	X <sup>2</sup>	Y <sup>2</sup>	XY	(Y-Y1)	(Y-Y1) <sup>2</sup>
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	CNX NIFTY	(X)		URN (Y)					
1-jun-14	2087.55		20.817						
3-Oct-14	2630.05	25.987	23.591	13.328	675.345	177.636	346.361	6.350	40.330
1-Feb-15	2971.55	12.984	27.671	17.292	168.598	299.021	224.531	10.314	106.395
1-Jun-15	2962.25	-0.312	28.468	2.882	-0.097	8.308	-0.902	-4.094	16.768
3-Oct-15	3569.6	20.503	29.699	4.325	420.372	18.706	88.677	-2.652	7.034
1-Feb-16	4137.2	15.900	32.839	10.569	252.839	111.712	168.063	3.591	12.902
1-Jun-16	4297.05	3.863	34.518	5.113	14.928	26.147	19.756	-1.863	3.474
1-Oct-16	5068.95	17.963	40.055	16.040	322.686	257.307	288.148	9.063	82.144
1-Feb-17	5317.25	4.898	41.951	4.734	23.994	22.419	23.193	-2.242	5.028
					55				
2-Jun-17	4739.6	-10.863	37.131	-11.48	118.019	132.011	124.819	-18.467	341.031
<b>TOTAL</b>		<b>90.924</b>		<b>62.796</b>	<b>1996.88</b>	<b>1053.27</b>	<b>1282.652</b>	<b>0.0047</b>	<b>615.111</b>

### Calculation of Above Table

Beta	Alfa	Standard Deviation	Coefficient of determination	Sharpe ratio (SR)	Treynor Ratio (TR)	Jensen Ratio (JR)
0.60116	0.9040	8.2672	0.7959	6.4468	88.6567	1.5036

### Conclusion

It is inferred as that alpha value is higher than beta value so it seems to know that value of fund is positive in the share market. By the Sharpe ratio, the Sundram BNP Paribas Equity fund gained the high rate of return (6.4468), therefore the investment value is also Low; By the Jensen ratio, expected market return (1.5036) is also seems to be positive at high value of the market investment. By the treynor ratio, without any diversifiable risk and portfolio risk, gained the return of investment of (88.6567). It always has high Growth Rate in the Share market, for future also.

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