

**MARKET COMPETENCY OF PRIVATE WIND MILLS IN INDIA****\*Dr. A. MUTHUSAMY****\*\* Dr. S. PRASAD****\* Professor, Department of International Business and Commerce, Alagappa University, Karaikudi-4. Tamilnadu.****\*\* Assistant Professor, Department of International Business and Commerce, Alagappa University, Karaikudi-4 .****ABSTRACT**

The return is better known as reward from investments that includes both current and capital gain or losses. It arises due to increase or decrease of the security prices. Risk and Return analysis of an investment opportunity forms the core part of investment management business. Any investment decision is taken to achieve a better return than other available avenues, or expect a higher return than the others. The financial manager has to watch the relationship between operating risk and profitability of a company also. Hence in this article an attempt has been made to study the relationship between risk and return of selected Wind Mill Companies in India. In this article five wind mill companies have been selected from BSE500 Index on the basis of availability of data.

**Introduction**

Almost all investments carry risk and yield return. Usually, higher the risk higher the return, lower the risk lower the return. Return is the yield on a security. The return is better known as reward from investments that includes both current and capital gain or losses. It arises due to increase or decrease of the security prices. To properly measure the return generated by an investment we must account for both the price change and the cash flow derived from the asset during the period the asset was held. There are several concepts of return like current yield, expected earning yield, holding period yield, etc. The return from an investment is the realizable cash flow earned by its owner during the given period of time. Typically it is expressed as a percentage of the beginning of period value of the investment. The Risk-Return relationships of selected wind mills form the S&P 500 Index taken for the study. Risk and Return analysis of an investment opportunity forms the core part of investment management business. Any investment decision is taken to achieve a better return than other available avenues, or expect a higher return than the others. But this expectation might not materialize, because of innumerable reasons. This chance of not being able to meet the expected or targeted return is generally known as risk.

**Importance of the Study**

The success of national environment policies on the implementation of renewable energy ultimately depends on the number of successful projects in which renewable sources are applied. Successful investment and the sitting of wind power plants eventually determine the success rate of national efforts in establishing renewable capacity. The current problem facing wind powers are similar to those that originally faced other renewable power plants. A return is a term that is understood by most investors. Total return is a measure of the combined income and capital gain or loss from an investment. This is usually expressed as a percentage, which may be annualized a number of years or represent a single period. The return for individual assets is measured in naturally logical way over the pre-determined

investment horizon (on holding period). The risk and return trade off says that the potential return rises with an increase in risk. It is important for an investor to decide on a balance between the desire for the lowest possible risk and highest possible return. The purpose of investment is to get a return or income on the funds invested in different financial asset. The most important characteristics of financial assets are the size and variability of their future returns. In this paper an attempt to analyses the risk return aspect of selected companies of wind mills in India.

### **Period of the Study**

The Market Performance of the selected wind mills taken for the study period of two years from January 2013 to December 2014 (two calendar years).

### **Sample Companies**

The sample wind mills are selected on the basis of convenient sampling method and also these five wind mills are the main largest wind generating companies in India.

The following Wind Mills have been selected for the study

1. Suzlon Energy Ltd
2. Orient Green Power Ltd
3. Indowind Energy Ltd
4. Innox Wind Ltd
5. NEPC

### **Measurement of Earnings**

The return on security is measured on monthly basis throughout the period from 1<sup>st</sup> January 2013 to 31<sup>st</sup> December 2014 based on price quotations. The formula is

$$R = [P_1 - P_0 / P_0] \times 100$$

Where

r = return

P<sub>0</sub> = Opening price of security

P<sub>1</sub> = Closing price of security (Monthly)

There are 24 monthly involved over a two years period and that there are 24 return figures, Return for the chosen four Private Wind mills and also S&P 500 Index.

### **Risk**

Risk is defined as the possibility of the actual return being different from the expected return on an investment over the period of investment. Low risk leads to low returns. High risks lead to higher potential returns, but may also lead to higher losses. Risk reflects the chance that the actual return on an investment may be very different than the expected return. The risk of individual securities in the portfolio is reduced. This risk totally vanishes when the number of securities is very large. But the risk represented by covariance remains. Risk is an important concept in financial analysis, especially in terms of how it affects security prices and rate of return. The variability of the actual return from the expected returns associated with a given asset/investment is defined as risk.

Beta is a measure of risk that measure indivertible market-related risk. The systematic risk could be diminished if securities are combined on a portfolio. Beta measures the variability in actual returns in relation to market price returns where all share prices are taken together in the form of index numbers. High beta values indicate much greater volatility in the return and

low beta show lesser volatility in the return. The individual security beta is measured by the following.

Formula

$$\beta = \frac{\sum xy}{\sum x^2}$$

$$\beta = \text{Beta}$$

$\sum xy$  = Covariance of portfolio return and market return

$\sum x^2$  = Variance of market return

A portfolio is a combination of two or more securities (assets). A larger number can be formed from a given set of assets. Each portfolio has risk-return characteristics its own. The effect of interaction between return on assets and portfolio risk is at the heart of modern portfolio theory. The degree and direct correlation between asset returns have far-reaching effects on the reduction of portfolio risk through diversification. The relationship between beta and the expected return is the essence of CAPM, the best known theory among the modern portfolio theory. The CAPM predicts a linear relationship between the expected return and beta.

**Table 1 Company-Wise Yearly Risk-Return Computation**

Return	Standard Deviation			Beta					
	2013	2014	Both 2013 and 2014 Annualized	2013	2014	Both 2013 and 2014 Annualized			
Suzlon	2.20	8.33	3.06	1.50	7.28	3.04	2.81	7.44	2.31
Orient Green	3.30	1.31	0.50	9.20	2.63	3.28	1.63	3.55	0.96
Indowind	8.40	1.36	3.52	1.73	1.62	0.05	2.86	3.31	1.20
Innox Wind	4.33	1.63	1.35	4.24	1.40	1.42	20.30	17.90	1.20
NEPC	6.24	0.60	2.82	5.60	2.77	1.41	27.84	18.90	4.47
S&P	2.975	3.518	0.2715	6.55	3.502	1.524			

Source: Computed

### Risk-Return Analysis of Suzlon Energy

The Suzlon Energy limited has earned a return 4.57% during the First Month, 1<sup>st</sup> January 2013 to 31<sup>st</sup> January 2013, followed by 1.02% return in second month and so on. The highest monthly return of 12 month period (i.e. January 2013 to December 2013) of 9.45% was recorded during 10<sup>th</sup> month 1<sup>st</sup> October to 31<sup>st</sup> October 2013. The lowest return of 1.02% was recorded during 2<sup>nd</sup> month 1<sup>st</sup> February 2013. Out of 12 month periods, twelve periods saw positive returns and no negative returns.

The overall returns for the one year period worked out to be 2.20% as against that of S&P 500 basket put 2.975 %. The security concerned has done better than the S&P500

basket. The standard deviation measured to 1.50 as against that of S&P 500 basket put 6.55%. The security concerned is riskier than the S&P 500 basket.

But the Beta co-efficient ( $\beta$ ) for the security has been found to be 2.81%. It indicates that the company is less risky during the year.

The higher monthly return during January 2014 to December 2014 of 32.97% was recorded during 15<sup>th</sup> month from 1<sup>st</sup> March to 31<sup>st</sup> March 2014. The lowest return of 0.65% was recorded during 23<sup>rd</sup> month from 1<sup>st</sup> November to 31<sup>st</sup> November 2014. Out of 12 month periods covered in the year 2014, twelve periods saw positive returns and no negative returns.

The overall mean return for the 12 month period worked out to 8.33% as against that of S&P 500 basket 3.518%. The security concerned has done better than the S & P 500 basket. The standard deviation measured 7.28% as against that of S&P 500 basket put at 3.502%. The security concerned is less risky than the S&P 500 basket.

The Beta co-efficient ( $\beta$ ) for the security has been found to be 7.44%. It indicates that the company is less risky during the year 2013.

The overall monthly return for the whole period of study worked out to be 3.06% as against that of S&P 500 basket put at 0.27%. The security concerned has done better than the S&P 500 basket. The standard deviation measured 3.04% as against that of S&P 500 basket put at 1.524%. The security concerned is riskier than the S&P 500 basket. In the two year period of study the Suzlon Energy Limited, has in fact depreciated in normal term. The beta co-efficient for the security has been found to be 2.31. It indicates that the company is less risky category in contradiction with the high standard deviation.

#### **Risk Return Analysis of Orient Green Power Limited**

The Orient Green Power Limited, has earned a return 8.90%, during the First Month, 1<sup>st</sup> January 2013 to 31<sup>st</sup> January 2013 followed by 2.62% return in second month and so on. The highest monthly return of 12 month period ( i.e January 2013 to December 2013) of 15.56% was recorded during 12<sup>th</sup> month from 1<sup>st</sup> December to 31<sup>st</sup> December 2013. The lowest return of 0.11% was recorded during 4<sup>th</sup> Month from 1<sup>st</sup> April 2013 to 30<sup>th</sup> April 2013. Out of 12 month periods had positive returns and no negative returns.

The overall 12 monthly mean return for the one year period worked out to be 3.30% as against that of S&P 500 basket put at 2.975%. The security concerned has done better than the S&P 500 basket. The standard deviation measured to 9.20% as against that of S&P 500 put 6.55%. The security has concerned is more risky than the S&P 500 basket.

But the Beta co-efficient ( $\beta$ ) for the security has been found to be 1.63. It indicates that the company is less risky during the year 2013.

The higher monthly return during January to December 2014 of 43.54% was recorded during 15<sup>th</sup> Month from 1<sup>st</sup> March 2014 to 31<sup>st</sup> March 2014. The lowest return of 0.04% was recorded during 24<sup>th</sup> Month 1<sup>st</sup> December to 31<sup>st</sup> December 2014. Out of 12 month periods covered in the year 2014, positive returns and there is no negative returns.

The overall mean return for the 12 month periods worked out to 1.31% as against that of S&P 500 basket 3.518%. The security concerned has done better than the S&P 500 basket. The standard deviation measured 2.63% as against that of S&P500 put at 3.502%. The security concerned is worse than the S&P 500 basket.

The Beta co-efficient ( $\beta$ ) for the security has been found to be 3.55. It indicates that the company is less risky during the year 2014.

The overall monthly mean return for the whole period of study worked out to be 0.50% as against that of S&P 500 basket put at 0.27%. The security concerned has done better than the S&P 500 basket. The standard deviation measured 3.28% as an against that of S&P 500 basket put at 1.524% the security concerned is riskier than the S&P 500 basket. In the two year period of the study the Orient green power Limited, has in fact depreciated in normal term, the beta co-efficient for the security has been found to be 0.96. It indicates that the company is less risky category in contradiction with the high standard deviation.

#### **Risk Return Analysis of Indowind Energy Limited**

The Indowind energy Limited has earned a return 6.94% during the First month, 1<sup>st</sup> January 2013 to 31<sup>st</sup> January 2013, followed by 7.86% return in second month and so on. The highest monthly return of 12 month period (i.e. January 2013 to December 2013) of 32.45% was recorded during 11<sup>th</sup> Month, 1<sup>st</sup> November 2013 to 30<sup>th</sup> November 2013. The lowest return 0.04% was recorded during 5<sup>th</sup> Month 1<sup>st</sup> May 2013 to 31<sup>st</sup> May 2013. Out of 12 month periods, had positive returns and no negative returns.

The overall returns for the one year period worked out to be 8.40% as against that of S&P 500 basket put 2.975%. The security concerned has done better than the S&P 500 basket. The standard deviation measured to 1.73 as against that of S&P 500 basket put 6.55%. The security concerned is riskier than the S&P 500 basket.

But the Beta co-efficient ( $\beta$ ) for the security has been found to be 2.86 . It indicates that the company is less risky during the year.

The higher monthly return during January to December 2014 of 9.76% was recorded during 19<sup>th</sup> Month from 1<sup>st</sup> July to 31<sup>st</sup> July 2014. The lowest return of 0.54% was recorded during 20<sup>th</sup> month from 1<sup>st</sup> August to 31<sup>st</sup> August 2014. Out of 12 month periods covered in the year 2014, had positive returns and the no negative returns.

The overall mean return for the 12 month period worked out to be 1.36% as against that of S&P 500 basket 3.518%. The security concerned has done better than the S&P 500 basket. The Standard deviation measured 1.62% as against that of S&P 500 basket put at 3.502%. The security concerned is less risky than the S&P 500 basket.

The Beta co-efficient ( $\beta$ ) for the security has been found to be 3.31% . It indicates that the company is less risky during the year 2014.

The overall monthly return for the whole period of study worked out to be 3.52% as against that of S&P basket put 0.27%. The security concerned has done better than the S&P 500 basket. The standard deviation measured 0.05% as against that of S&P 500 basket put at 1.524%. The security concerned is better than the S&P 500 basket. In the two year period of study the Indowind energy Limited, has in fact depreciated in normal term. The beta co-efficient for the security has been found to be 1.20. It indicates that the company is less risky category in contradiction with the high standard deviation.

#### **Risk Return Analysis of Innoxwind Limited**

The Innox wind Limited has earned a return 9.14% during the First month, 1<sup>st</sup> January 2013 to 31<sup>st</sup> January 2013, followed by 3.26% return in second month and so on. The highest monthly return of 12 month period (i.e. January 2013 to December 2013) of 9.14% was

recorded during 1<sup>st</sup> Month, 1<sup>st</sup> January 2013 to 31<sup>st</sup> January 2013. The lowest return of 0.098% was recorded during 8<sup>th</sup> Month from 1<sup>st</sup> August 2013 to 31<sup>st</sup> August 2013. Out of 12 month periods, had positive returns and no negative returns.

The overall 12 monthly mean returns for the one year period worked out to be 4.33% as against that of S&P 500 basket put at 2.975%.The securities concerned has done better than the S&P 500 basket. The standard deviation measured to 4.24% as against that of S&P 500 put 6.55%.The security has concerned is more risky than the S&P 500 basket.

But the Beta co –efficient ( $\beta$ ) for the security has been found to be 20.30%.It indicates that the company is less risky during the year 2013.

The higher monthly return during January to December 2014 of 14.55% was recorded during 17<sup>th</sup> month from 1<sup>st</sup> May to 31<sup>st</sup> May 2014.The lowest return of 0.43% was recorded during 23<sup>rd</sup> month from 1<sup>st</sup> November to 30<sup>th</sup> November 2014.Out of 12 month periods covered in the year 2014, positive returns and the no negative.

The overall mean return for the 12 month period worked out to 1.63% as against that of S&P 500 3.158%.The security concerned has done better than the S&P 500 basket. The standard deviation measured 1.40% as against that of S&P 500 basket put at 3.502%.The security concerned is less risky than the S&P 500 basket.

But the Beta co-efficient ( $\beta$ ) for the security has been found to be 17.90%.It indicates that the company is less risky during the year 2013.

The overall monthly mean returns for the whole period of study worked out to be 1.35% as against that of S&P 500 basket put at 0.27%.The security concerned has done better than the S&P 500 basket. The standard deviation measured 1.42% as against that of S & P 500 basket put at 1.524%.The security concerned is better than the S&P500 basket. In two year period of study the Innox wind Limited, has in fact depreciated in normal term. The Beta co-efficient for the security has been found to be 1.20.It indicates that the company is less risky category in contradiction with the high standard deviation.

### **Risk Return Analysis of NEPC**

The NEPC wind Limited has earned a return 2.89% during the First month, 1<sup>st</sup> January 2013 to 31<sup>st</sup> January 2013, followed by 1.59% return in second month and so on. The highest monthly return of 12 month period (i.e. January 2013 to December 2013) of 9.43% was recorded during 8<sup>th</sup> Month, 1<sup>st</sup> August 2013 to 31<sup>st</sup> August 2013. The lowest return of 0.11% was recorded during 3<sup>rd</sup> Month from 1<sup>st</sup> March 2013 to 31<sup>st</sup> March 2013. Out of 12 month periods, saw positive returns and no negative returns.

The overall 12 monthly mean returns for the one year period worked out to be 6.24% as against that of S&P 500 basket put at 2.975%.The securities concerned has done better than the S&P 500 basket. The standard deviation measured to 5.60% as against that of S&P 500 put 6.55%.The security has concerned is more risky than the S&P 500 basket.

But the Beta co –efficient ( $\beta$ ) for the security has been found to be 27.84%.It indicates that the company is less risky during the year 2013.

The higher monthly return during January to December 2014 of 15.98% was recorded during 17<sup>th</sup> month from 1<sup>st</sup> May to 31<sup>st</sup> May 2014.The lowest return of 1.35% was recorded during 13<sup>th</sup> month from 1<sup>st</sup> January to 31<sup>st</sup> January 2014.Out of 12 month periods covered in the year 2014, saw positive returns and the no negative.

The overall mean return for the 12 month period worked out to 0.60% as against that of S&P 500 3.518%.The security concerned has done better than the S&P 500 basket. The standard deviation measured 2.77% as against that of S&P 500 basket put at 3.502%.The security concerned is less risky than the S&P 500 basket.

But the Beta co-efficient ( $\beta$ ) for the security has been found to be 18.90%.It indicates that the company is less risky during the year 2013.

The overall monthly mean returns for the whole period of study worked out to be 2.82% as against that of S&P 500 basket put at 0.27%.The security concerned has done better than the S&P 500 basket. The standard deviation measured 1.41% as against that of S &P 500 basket put at 1.524%.The security concerned is better than the S&P500 basket. In two year period of study the NEPC wind Limited, has in fact depreciated in normal term. The Beta co-efficient for the security has been found to be 4.47%.It indicates that the company is less risky category in contradiction with the high standard deviation.

### Required Return Vs Actual Return

Risk return analysis must evaluate performance of companies based on required return and actual return.

Required return is calculated based on the CAPM model taking the equation

$$R_R = R_f + \beta (R_m - R_f) \text{ Where,}$$

$R_R$  is Required Return

$R_f$  is Risk free return

$\beta$  is measure of Risk (Market Beta)

$R_m$  is Market return

The risk free return is taken as 6% for 2013 and 7% for 2014 and for both 2013 and 2014 combined at 6.5% p.a. The required return is calculated for the different period for 2013, 2014 and average annualized return for 2013-2014 combined. The required return when compared with actual return will help to evaluating whether the companies have done better or worse than the market (S&P 500)

### Required Return Vs Actual Return -2013

The risk free return is taken as 6% for 2013 required return is calculated for the different companies for 2013.The required return when compared with actual return will help evaluate whether the companies have done better or worse than the market.

The calculated required return and actual return are given in Table 2

**Table 2 Comparison of Required Return and Actual Return -2013**

S.No	Company Name	Required Return (%)	Actual Return (%)	Excess Return (AR-RR)	Result
1.	Suzlon	8.36	2.20	6.16	Better than Market
2.	Orient green	10.96	3.30	7.66	Better than Market
3.	Indowind	21.11	8.40	12.71	Better than Market
4.	Innox wind	11.40	4.33	7.07	Better than Market
5.	NEPC	7.37	6.24	1.13	Better than Market

Source: Computed

From the table 2 it is clear that all the companies have done better than the S&P 500.

#### Required Return vs Actual Return -2014

The risk free return is taken as 7% for 2014. The required return is calculated for the different companies for 2014. The required return when compared with actual return will help evaluate whether the companies have done better or worse than the market.

The calculated required return and actual return and excess return are given in table 3.

**Table 3 Comparison of Required Return and Actual Return -2014**

S.No	Company Name	Required Return (%)	Actual Return (%)	Excess Return (AR-RR)	Result
1.	Suzlon	2.18	8.33	6.15	Better than Market
2.	Orient green	12.59	1.31	11.28	Better than Market
3.	Indowind	4.49	1.36	8.13	Better than Market
4.	Innox wind	3.60	1.63	1.97	Better than Market
5.	NEPC	5.25	0.60	4.65	Better than Market

Source: Computed

From the table 3 it is clear that all the companies have done better than the S&P 500.

#### Required Return Vs Actual Return -2013 And 2014

The risk free return is taken at 6.5% p.a for 2013 and 2014 combined. Accordingly required annualized return is calculated for the different companies for 2013 and 2014 and average annualized return for 2013 and 2014 combined. The required return when compared with actual return will help evaluating whether the companies have done better or worse than the market. The calculated required return and actual return are given in table 4

**Table 4 Comparison of Required Return and Actual Return (2013 and 2014 combined)**

S.No	Company Name	Required Return (%)	Actual Return (%)	Excess Return (AR-RR)	Result
1.	Suzlon	0.33	3.06	2.73	Better than Market
2.	Orient green	0.40	0.50	0.45	Better than Market
3.	Indowind	0.29	3.52	3.22	Better than Market
4.	Innox	5.62	1.35	4.27	Better than Market
5.	NEPC	0.19	2.82	2.62	Better than Market

Source: Computed



From the table 4 it is clear that all the companies have done better than the S & P 500.

### William Sharpe's Index Vs Jack L.Treynor Index

The return analysis must evaluate performance of companies based on Sharpe's Index and Jack L.Treynor Index based performance though these indices are used for managed portfolio only. The researcher is using then to analyze the performance of individual stocks.

(i) William Sharpe's Index measures the realized risk premium for total risk. The formula is

$$[(R_A - R_F) / \sigma_A]$$

Where,

$R_A$  is average return of the security

$R_F$  is risk free return

$\sigma_A$  is standard deviation of the security

(ii) Jack L.Treynor Index measures the realized risk premium for systematic risk only. The formula is

$$[(R_A - R_F) / \beta_A]$$

Where,

$R_A$  is average return of the security

$R_F$  is risk free return

$\beta_A$  is systematic risk

The risk free return is taken as 6% 2013 and 7% for 2014 and for both 2013 and combined at 6.5% p.a. Accordingly William Sharpe's Index is calculated for the difference companies for 2013-2014 combined. The data are given in the table 5

**Table 5 Comparison of Sharpe Index and Treynor Index**

Company Name	William Sharpe's Index			Jack.L Treynor Index		
	2013	2014	2013 and 2014	2013	2014	2013 and 2014
Suzlon	1.42	1.134	0.9242	0.761	1.110	3.5779
Orient green	0.352	0.471	3.3697	1.987	0.349	1.2968
Indowind	4.820	0.745	0.9458	2.916	0.389	1.0791
Innoxwind	1.007	1.114	3.5541	0.210	0.087	1.3041
NEPC	1.103	0.191	1.384	0.221	0.028	0.1196

Source: Computed

As per Sharpe Index in 2013 Suzlon energy Ltd performed very well followed by Orient green power Ltd, Indowind Energy Ltd, Innox wind Ltd and NEPC. In 2014 also Suzlon energy Ltd followed by Orient green power, Indowind energy, Innox wind and NEPC. Both 2013 and 2014 combined, the index showed NEPC was at the top with risk premium of 1.384% percent of total risk, followed by Suzlon energy with risk premium of 0.9242 % per unit of total risk and so on.

As per Treynor's Index in 2013, Suzlon energy performed very well followed by and NEPC. In 2014 the top place went to NEPC followed by Suzlon energy, Orient green power, Indowind energy, Innox Orient green power, Indowind energy, Innox wind . Both 2013 and 2014 combined index showed that NEPC was at the top with risk premium of 0.1196 % per unit of systematic risk followed by Suzlon energy , with risk premium of 3.5779% per unit systematic risk and so on.

**Table 6 QUARTER-WISE COMPANY RETURN COMPUTATION**

Quarter	COMPANY NAME				
	Suzlon	Orient Green	Indowind	Innox wind	NEPC
Q1	1.30	1.37	2.40	3.59	3.45
Q2	1.06	3.60	1.50	3.73	4.37
Q3	6.70	4.70	5.10	1.91	3.42
Q4	1.70	1.79	1.24	2.04	4.68
Q5	4.00	1.10	1.17	4.36	6.65
Q6	6.50	1.20	6.15	8.23	10.17
Q7	5.70	2.40	9.50	6.16	5.45
Q8	1.09	3.49	3.13	1.17	4.23

Source: Computed

From the above table 6 we know about the details of Quarter- wise company returns to apply for Kruskal Wallis (or) H-test.

**Table 7 KRUKAL-WALLIS (OR) H-TEST**

Suzlon Energy Ltd	Orient Green Power Ltd	Indo wind Energy Ltd	Innox Wind Ltd	NEPC
8	40	15	20	18
1	21	9	22	26
36	28	29	12	17
10	11	7	13	27

23	3	5	25	35
34	6	32	37	39
31	14	38	33	30
2	19	16	4	24
115	142	151	166	216

Source: Computed

### TESTING OF HYPOTHESIS

Table 7 gives the relevant details whether the quarter- wise company returns differed significantly or whether the returns differed across the two years .Two way ANOVA was used.

#### Two sets of Null Hypothesis

**Set-1:** Ho: There is no significant difference in the values of mean returns of the companies.

**Set-2:** Ho: There is no significant difference in the values of different quarters of the companies.

**Table 8 ANOVA- KRUKAL-WALLIS (OR) H-TEST**

	Sum of Degrees of Square	Degrees of Freedom	Mean Square	F-Ratio
Between Column	697	4	174.25	0.237
Within Row	7000	7	1000	0.041
Residual	-1159	28	41.39	
Total	6538	39		

Source: Computed

### RESULT

Set-1: Ho: The table value of 'F' at 5% for  $V_1=3$ ,  $V_2=21$  is 3.07. Since the calculated value is less than the table value. So the null hypothesis is accepted. There is no difference among the returns of the companies.

Set-2: Ho: The table value of 'F' at 5% for  $V_1=7$ ,  $V_2=21$  is 2.49. Since the calculated value is less than the table value. So the null hypothesis is accepted. There is no difference among the different period's returns.

### Conclusion

Risk and Return analysis of an investment opportunity forms the core part of investment management business. Any investment decision is taken to achieve a better return than other available avenues, or expect a higher return than the others. But this expectation might not materialize, because of innumerable reasons. The risk and return trade off says that the potential return rises with an increase in risk. It is important for an investor to decide on a

balance between the desire for the lowest possible risk and highest possible return. The purpose of investment is to get a return or income on the funds invested in different financial asset. The most important characteristics of financial assets are the size and variability of their future returns.

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### WEBSITES

- [www.Moneycontrol.com](http://www.Moneycontrol.com)
- [www.Suzlon Energy .com](http://www.Suzlon Energy .com)
- [www.NSEIndia.com](http://www.NSEIndia.com)
- [www.Marketing performance of Wind in India.com](http://www.Marketing performance of Wind in India.com)
- [www.Capitalmarket.com](http://www.Capitalmarket.com)
- [www.Orient Green Power .com](http://www.Orient Green Power .com)
- [www.Innox Wind .com](http://www.Innox Wind .com)