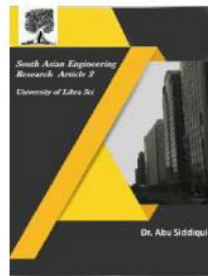




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## A STUDY ON RISK AND RETURN ANALYSIS OF INDIAN IT SECTOR

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### ABSTRACT

**ABSTRACT:** Risk and return analysis plays a major role in most individual decision making process. Every capitalist desires to avoid risk and maximize return. Successful investment requires a careful assessment of the investments potential returns and its risk of loss. A firms risk and expected returns directly affect its share price. In real world situations, the Risk of any single investment wouldn't be viewed severally of alternative assets. New investment must be considered in light of their impact on the risk and return of the assets. In traditional financial analysis, investment management tools allow the investors to evaluate the return and risk of individual investments and portfolios. Usually, higher the risk, higher the returns and lower the risk, lower the returns. However a general understanding of this development isn't enough to form applicable choices concerning investments. This study reported a statistically significant relationship between risk and return. The study is undertaken with the main objective of determining the risk and return profile of five IT firms listed on BSE .Finally, the study proves there's a relation between risk, return and capitalist the most effective company among the selected company.

**Key words:** Risk, Return, Bombay stock Exchange (BSE).

### Introduction:

#### Risk:

In the investment world, the definition of risk is that the likelihood that associate investments actual return are going to be completely different than expected. Risk means that you have got the chance of losing some, or perhaps all, of your original investment. Low levels of risk are related to low potential returns. Risk can be divided into two types: systematic and unsystematic.

#### Return:

Returns refer to the potential loss or gain experienced through investments in securities. If an investor decides to invest in a security that has a relatively low risk, the potential return on that investment is typically small. Conversely, an investment in a security that has a high risk factor has the potential to gain higher return.

### REVIEW OF LITERATURE:

- Sehgal (1994) studied the concept of skewness in determining the nature of

return. The study made an attempt to explore the nature of return by way of taking 80 individual securities from Bombay Stock Exchange during the period of 1984 to 1993 covering more than 10 years. The study tested the scrips to find out the nature of returns belonging to normal or non normal. The test showed the result that the individual securities did not show any normal distribution in terms of returns since the return of scrips has significant positive skewness. The study also revealed that NATEX also showed the non normal return.

- Kohers and others (2006) made an effort in comparing the return of the stock market with respect to emerging markets and developed markets. The study explained by way of analyzing 49 companies of which 26 countries belonged to emerging countries and remaining 23 countries

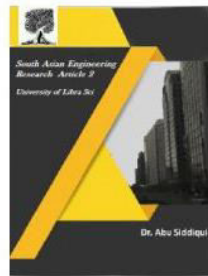


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belonged to developed countries. The study found that the risk associated with the emerging market were more than developed countries. Since the expected return of the investment in the emerging markets was commensurate with risk. The study concluded that the risk averse attitudes of the investors were found to be higher in emerging market in comparing with developed market.

- DWI and others (2009) made an attempt to find out the influence of accounting information on stock return and therefore the study used multiple regression by way of identifying financial ratio, firm size and cash flow as independent variable and stock return as dependent variable. The result of the study showed that there was a considerable impact of the above key variables in determining the stock return.
- Sangeetha and Dheeraj (2007) made an attempt to find out the relation among the return of the scrip, market information and accounting information. They wanted to study the influence of market information on return of the scrip was high or the influence of accounting information was high on the scrip's return. They collected the information on the basis of monthly data pertaining to various sectors from BSE during the year 1999 to 2006. The study used regression model to find the significant impact of accounting information and market information on scrip's return and found that the market information made significant influence whereas the accounting information had no impact on return of the scrip.
- Hasan Ali and Habibolah (2010) tested the risk- return relationship by way of taking 74 companies as sample size in Tehran Stock Exchange during the period of 2003-2005. The study examined the

characteristics of the return in terms of Skewness and Kurtosis to find out the distribution of return series. As far as the study is concerned, the effect of Kurtosis did not show any significant relation with the return during the study period whereas the Skewness showed the important effects on returns. The study further explored that the relationship between beta and return was found to be non-linear.

## OBJECTIVES OF THE STUDY:

- To calculate return of the selected IT sector scrips.
- To calculate the risk of the selected IT sector scrips.
- To co-relate the firm's risk, return and state, the best company among these selected IT companies.

## HYPOTHESIS OF THE STUDY:

- H0: There is no significant relationship between risk and return of IT companies.
- H1: There is a significant relationship between risk and return of IT companies.

**RESEARCH METHODOLOGY:** It is the scientific way to solve the research problem. It is the systematic, theoretical analysis of the ways applied to a field of study.

### Primary data:

This method includes the data collection from the personal discussion with the authorized clerks and members of the INDIABULLS financial services.

**Secondary data:** The secondary data can be obtained from information collected through internet searches, books, government departments and libraries.

### STATISTICAL TOOLS:

Statistical tools used for the study are mean, median, standard deviation, skewness and kurtosis.

### SAMPLE DESIGN:

The study of analysis mainly focusing at difference of changes in share prices of top Indian

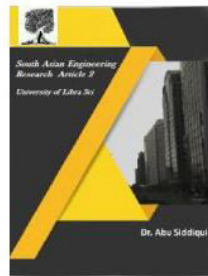


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IT companies listed on BSE indexes are taken for the study.

**SAMPLE SIZE:** To analyze the risk and return of five IT companies..

**FIVE IT COMPANIES:**

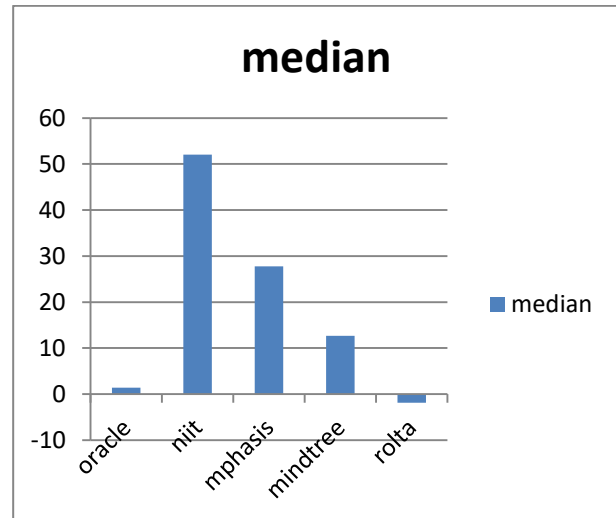
- Oracle India Pvt Ltd.
- NIIT Technologies
- MindTree
- Mphasis
- Rolta

**DATA ANALYSIS:**

**Calculation of mean:**

COMPANIES	MEAN
ORACLE	3.34
NIIT	33.54
MPHASIS	19.798
MINDTREE	-2.1
ROLTA	-15.656

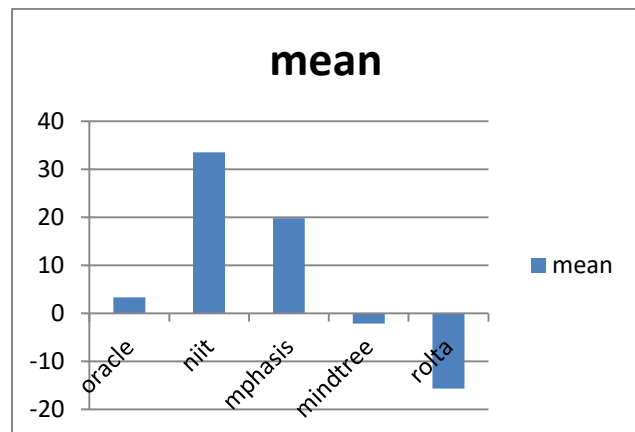
MPHASIS	27.76
MINDTREE	12.65
ROLTA	-1.88



**INTERPRETATION:** from the above graph, NIIT (52.07) shows more result compared to oracle (1.4), Mphasis (27.76), MindTree (12.65), Rolta (-1.88).

**Calculation of standard deviation:**

COMPANY	STD
ORACLE	18.50885
NIIT	43.54889
MPHASIS	20.2485
MINDTREE	40.14328
ROLTA	48.34226



**INTERPRETATION:** From the above analysis, to compare different companies of oracle, Niit, Mphasis, MindTree and Rolta .It is observed that Rolta is having less mean when compared to other companies.

**Calculation of median:**

COMPANY	MEDIAN
ORACLE	1.4
NIIT	52.07

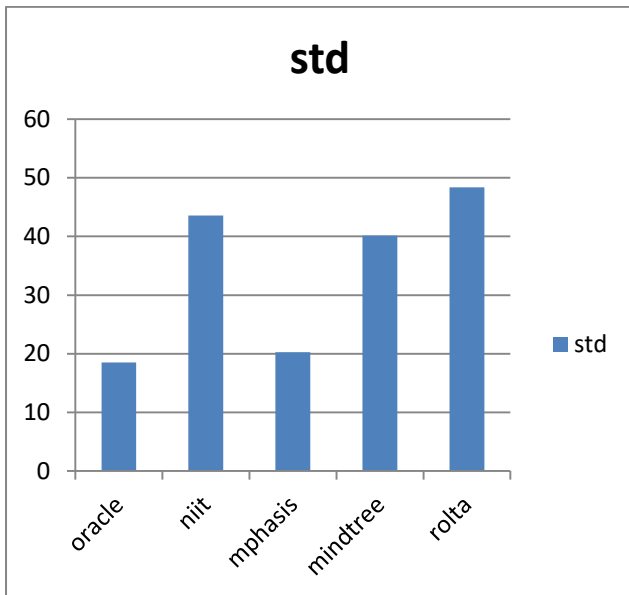
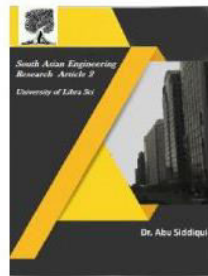


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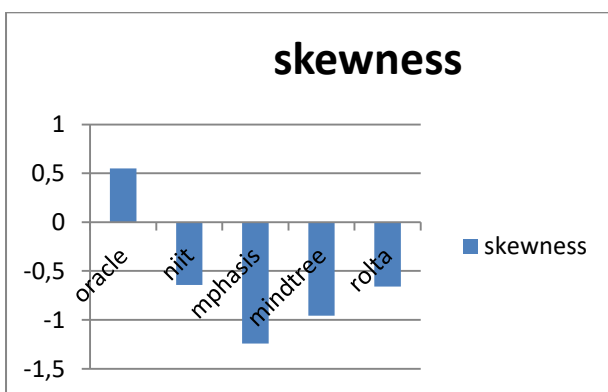
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**INTERPRETATION:** From the above study, we can analyze that the Rolta (48.34226) is having highest standard deviation and oracle (18.50885) is having the lowest standard deviation.

### Calculation of skewness:

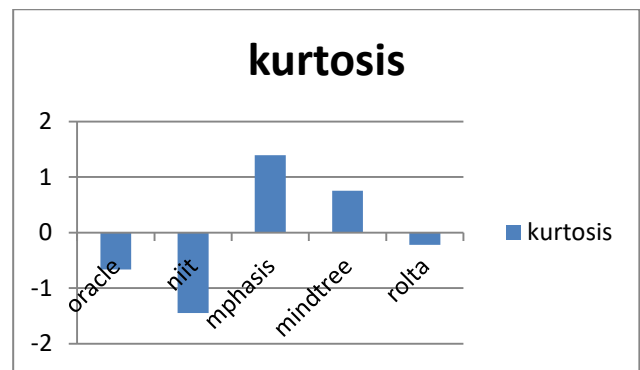
COMPANY	SKEWNESS
ORACLE	0.548818
NIIT	-0.64407
MPHASIS	-1.24181
MINDTREE	-0.95583
ROLTA	-0.6576



**INTERPRETATION:** From the above study, the skewness of oracle (0.548818) shows positive result while Niit (-0.64407), Mphasis (-1.24181), MindTree (-0.95583) and Rolta (-0.6576) shows negative results.

### Calculation of kurtosis:

COMPANY	KURTOSIS
ORACLE	-0.66362
NIIT	-1.4453
MPHASIS	1.39037
MINDTREE	0.754983
ROLTA	-0.21734



**INTERPRETATION:** From the above analysis, Mphasis (1.39037) and MindTree (0.754983) shows positive result when compared to oracle (-0.66362), Niit (-1.4453) and Rolta (-0.21734).

### T-TEST RESULT OF ORACLE WITH NIIT:

#### T-test: Paired sample for two means

Table column sub head	Variable 1	Variable 2
Mean	172.9588	965.0229
Variance	57541.04	1735321
Observations	2	2
Pearson Correlation	1	
Hypothesized Mean Difference	0	
Df	1	
t Stat	-1.03964	
P(T<=t) one-tail	0.243815	
t Critical one-tail	6.313752	
P(T<=t) two-tail	0.487629	
t Critical two-tail	12.7062	

For the above table H0 is accepted on the basis of calculated value -1.039(t Stat) < 12.7062(t Critical two-tail).

### T-TEST RESULT OF ORACLE WITH ROLTA:



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Table column sub head	Variable 1	Variable 2
Mean	172.9588	1160.659
Variance	57541.04	2767434
Observations	2	2
Pearson Correlation	1	
Hypothesized Mean Difference	0	
Df	1	
t Stat	-0.98113	
P(T<=t) one-tail	0.253032	
t Critical one-tail	6.313752	
P(T<=t) two-tail	0.506063	
t Critical two-tail	12.7062	

For the above table H0 is accepted on the basis of calculated value -0.98113 (t Stat) < 12.7062 (t Critical two-tail).

## T-TEST RESULT OF ORACLE WITH MPHASIS

Table column sub head	Variable 1	Variable 2
Mean	172.9588	214.8999
Variance	57541.04	76129.46
Observations	2	2
Pearson Correlation	1	
Hypothesized Mean Difference	0	
Df	1	
t Stat	-1.64584	
P(T<=t) one-tail	0.173792	
t Critical one-tail	6.313752	
P(T<=t) two-tail	0.347584	
t Critical two-tail	12.7062	

For the above table H0 is accepted on the basis of calculated value -1.64584 (t Stat) < 12.7062 (t Critical two-tail).

## T-TEST RESULT OF ORACLE WITH MINDTREE:

Table column sub head	Variable 1	Variable 2
Mean	172.9588	804.6915

Variance	57541.04	1301825
Observations	2	2
Pearson Correlation	1	
Hypothesized Mean Difference	0	
Df	1	
t Stat	-0.99146	
P(T<=t) one-tail	0.251365	
t Critical one-tail	6.313752	
P(T<=t) two-tail	0.502729	
t Critical two-tail	12.7062	

For the above table H0 is accepted on the basis of calculated value -0.99146 (t Stat) < 12.7062 (t Critical two-tail).

## FINDINGS:

From the data analysis and interpretations of the returns of five companies, namely ORACLE, MINDTREE, MPHASIS, NIIT and ROLTA, the following findings have been given:

- During the study period, the mean returns for selected IT companies shares both positive and negative figures.
- The risk of Rolta is higher when compared to selected IT companies.
- The skewness of Mphasis is having less risk when compared to other IT companies.
- The median shows high positive return in NIIT and less in Rolta.
- Standard deviation is satisfactory for all the selected IT companies.

## STATISTICAL ANALYSIS:

**Descriptive statistics:** To analyze the descriptive statistics the mean value is considered.

**T-test:** T-test is done to find out significant differences with the 5 companies and the factors. If the T-test value is greater than T-Critical two tail the null hypothesis is rejected, if it is less then null hypothesis is accepted.

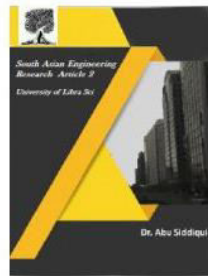


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## TESTING OF HYPOTHESIS:

Based on the above study, T-test results of five IT companies whose all calculated values (t stat) are less than tabulated value (t critical two tail).

## SUGGESTIONS:

By analyzing the IT sector with the help of risk-return, it has been revealed that this sector has a lot of potential to grow. So recommending the investors for investing in IT sector with no doubt is going to be a good and smart option because this industry is booming like never before.

The five IT companies viz. ORACLE, NIIT, MPHASIS, MINDTREE, ROLTA have outperformed in the industry.

- Rolta seems to be the best for the investors in terms of Risk as it poses less risk in the recent years among the selected IT companies.
- NIIT has been performing consistently in terms of higher returns and maintaining its level of growth in IT sector.

## CONCLUSION:

The IT industry is having highest growth opportunity in the near future, since information technology plays an important role in the economic development. Indian IT sectors have fared well on growth, asset quality and profitability with other regional IT sectors over the last years. The study of relationship risk and return analysis helps the capitalist to choose up the securities supported his alternative. The study of this kind provides information about the performance of various stocks in the market in terms of risk and return and suggests the best company for investment. Further, the inability of IT sector managements to improve capital allocation, increase the productivity of their service platforms and improve the performance ethic in their organizations could seriously affect future performance. The above study gives an optimistic view about the industry and its growth which recommends the investors to keep a good

look at on the major players to benefit in terms of returns on their investments.

## BIBLIOGRAPHY

### Books referred: .

- Security Analysis and Portfolio Management, written by V.A.Avadhani, Published by Himayala Publishing house Pvt.Ltd.9<sup>th</sup> Revised Edition.
- A study on risk and return analysis of selected stocks in India by Mr.M.vijayakumar in volume 3 in the year 2015.

### Web-site:

- [www.bseindia.com](http://www.bseindia.com),[http://www.answers.com/topics/bombaystock\\_exchange\\_of\\_indi](http://www.answers.com/topics/bombaystock_exchange_of_indi).
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