

Empirical Study on Risk-Return Trade-off of Selected Stocks in NSE

¹Surya B. V., ²Dr. Manoj Kumara N. V.²

¹Research Student, Department of Management Sciences, Maharaja Institute of Technology-Mysore, Vesveshwaraiaha technological University, Belgaum, Karnataka,

²Associate Professor Department of Management Sciences, Maharaja Institute of Technology-Mysore, Vesveshwaraiaha technological University, Belgaum, Karnataka,
Email - ¹ suryab143virat@gmail.com ² manojkumara_mba@mitmysore.in

Abstract: This paper attempts to measure the risk-return trade-off in Stock market. The study reports a statistically significant positive relationship between risk and return both at the individual security level and at the portfolio level, confirming the theoretical predictions and empirical findings on this issue in developed markets. Although portfolio risk and returns are found to be significantly positively related in general, some inconsistencies were revealed in the context of relative risk for high risk portfolios, suggesting the existence of some anomalies or mispricing in high risk assets. These findings have important implications for investment decisions at the NSE in that the investors may be able to create profitable investment strategies using the mispricing information.

Key Words: Risk return trade-off, Optimum portfolio, Stock market, Investment decision.

1. INTRODUCTION:

Risk-return trade-off is an important topic in finance. It plays a crucial role in most financial Decision-making processes of a firm - its asset valuation, investment, financing and Distribution decisions. The expected return of an asset rises with risk/ uncertainty because Investors hold a risky asset (security) if they are compensated with commensurably higher Returns. This paper focuses on National Stock Exchange (NSE) in India. It is important to Explore the risk-return relationship of selected companies on NSE for various reasons. NSE was one of the stock markets least affected by the recent global financial crisis (GFC). In fact, while most of the world markets declined during the global financial crisis, stock prices in NSE continually rose, suggesting it was less integrated with the developed markets and therefore more potential for international diversification with higher average returns than the developed markets. The extent of diversification benefits and the risk premium, however, are subject to formal investigation, warranting empirical evidence specific to a particular emerging market. The findings of the study will be of great value to national and international portfolio investors in NSE.

2. Theoretical Background/conceptual framework:

Risk and return is an important matter in the investment. If any investor wants to earn a profit they must ready to bear the risk. The risk and return are highly correlated. Increased potential returns on investment usually go hand-in-hand with increased risk. Different types of risks include project-specific risk, industry-specific risk, competitive risk, international risk, and market risk. Return refers to either gains or losses made from trading a security. The return on an investment is expressed as a percentage and considered a random variable that takes any value within a given range. Several factors influence the type of returns that investors can expect from trading in the markets.

3. Review of literature:

Hüseyin Tanriverdi, Timothy W. Ruefli¹⁰, (2004) According to this study the information technology sector is the largest capital budgeting in investments in U S. The Study Tells All about the Relationship between the company performance and IT investment. **Ibrahim Bello, Wahab Adedokun¹², (2005)** This study was conducted in the Nigeria stock market. By using risk and return stock performance were examined. **Dr P Vikkraman, P Varadharaja⁵, (2009)** This study was done by selecting auto sector stocks. In the time period of research that the automobile sector was in positive trend, so that is the reason for selected of this sector. **Abdalla¹, (2012)** in his study it consider the Egyptian & Saudi Arabian stocks for analysing the risk and return volatility in between time line 1/1/2007 to 30/12/2011. **Nazari Nafooti, Mohammad Sharifi, Rashid Shomali, Gholi Pasandeh, Tadrissi, Yousefi¹⁴, (2013)** in this study the independent and dependent variables were effect to the performance of Tehran stock exchange. The stock risk and return of the stocks does not decrease performance the stock exchange. **Hussein Abedi Shamsabadi and Devinaga Rasiah¹¹, (2013)** As for this study the risk and return are uninviting to the business and investment. So the study evaluates risk

and return of the stocks in Bursa Malaysia to know its performance. **P. Naveen, Mrs. K. Neeraja¹⁵, (2013)** According to this Risk and return are the two important aspects for every individual to analyse the performance of the stocks. Every investor is willing to avoid risk and earn high return. **Rashinkar, Divya¹⁷, (2014)** In this study they analyse the performance of Indian nationalised bank during the timeline 2013 to 2014. In this study they considered performance of 5 nationalised banks. **Anani Ekoue Vikpossi, Kolani Pamane², (2014)** The study says in investment theory risk and return is very important. This paper examines that risk and return by select 17 listed companies at stock exchange by using monthly returns from 2000 to 2008. **Dr. S. Krishnaprabha, Mr.M.Vijayakumar⁹, (2015)** The research was conducted to understand the performance of selected sectors orderly automobile, banking and pharmaceutical sectors. This study was conducted of the time line January 2014 to December 2015. **Dinesh Tandon, Dr Nidhi walia⁴, (2015)** This study evaluated the risk and return of select 5 sectors of NSE, the time line period from 2009 to 2013. This study conducted of the investor point of view. This paper examined the risk-return of selected sectors. **Bedanta Bora, Anindita Adhikary³, (2015)** This study examined that the returns of BSE Sensex index and its 30 listed companies. This research is conducted to know that how the stock returns influence return of the market. **Mr. Alpesh Gajera, Mr. Pranavdev Vyas, Mr. Pankaj Patoliya¹³, (2015)** : In the current economic situation interest rate are fluctuating in the, it is put investors to worry.as of investor cant taking decision in the share market clearly. **Patjoshi, Dr. Pramod Kumar¹⁶, (2016)** The economic process is progress by the share market in the current situation. The banking sector has a major role in the share market to economic stability. The study finds the risk and return relations. **Metin Coskun, Gulsah Kulali¹³, (2016)** This study conducted to know the beta and rate return of some scrip's in turkey. The main goal is to show the direction of risk and return relationship. **Dr. S Poornima, Swathiga⁸, (2017)** This study was conducted to know the performance of selected 2 sectors of NSE. This study examines that of beta and return of automobile and information technology sectors. **Dr.K.V Geethadevi. Dr.G Ramakrishna Reddi⁶, (2017)** This study conducted to comparing the selected FMCG stocks performance with the help of standard deviation and expected return. **Dr. M. Muthu Gopalakrishnan & Amal Vijay A K⁷, (2017)** Investors going to crack the earnings by different way of investment plans. This study helps to find most rewarding stock for investment.as of this paper the high return is associated with the high risk.

4. RESEARCH GAP:

The study defines risk return trade off in security market. There literature review related to the risk return. It helps to know the how risk influence the return.

- The very few studies risk return trade off in national stock exchange.
- The very few studies are discussing how risk influence to change the return in trading.
- The very few studies made on banking sector.
- The very few studies made on information technology (IT) sector.
- The very few studies made on auto motive sector.
- The very few studies discuss on only secondary data and some of the study used in both primary and secondary data.

5. PROBLEM STATEMENT:

The investors would expect a high return for bearing high risk. If there is no trade-off between risk and return, there is no need of considering about the risk. An enquiry into the various facts of risk-return relationship on equity shares in India is relatively less explored area.

6. OBJECTIVES OF THE STUDY:

- To investigate the risk and return of the selected companies.
- To examine the relationship between risk and return of selected companies.

7. METHODOLOGY:

Tools for the study

Statistical tool:

Arithmetic mean: - the average of a set of numerical values, as calculated by adding them together and dividing by the number of terms in the set.

Standard deviation: - a quantity expressing by how much the members of a group differ from the mean value for the group.

Correlation: - a mutual relationship or connection between two or more things.

Period of the study:- In this study have been taken for 3 years' data for research. Orderly 2016, 2017, and 2018 in quarterly basis.

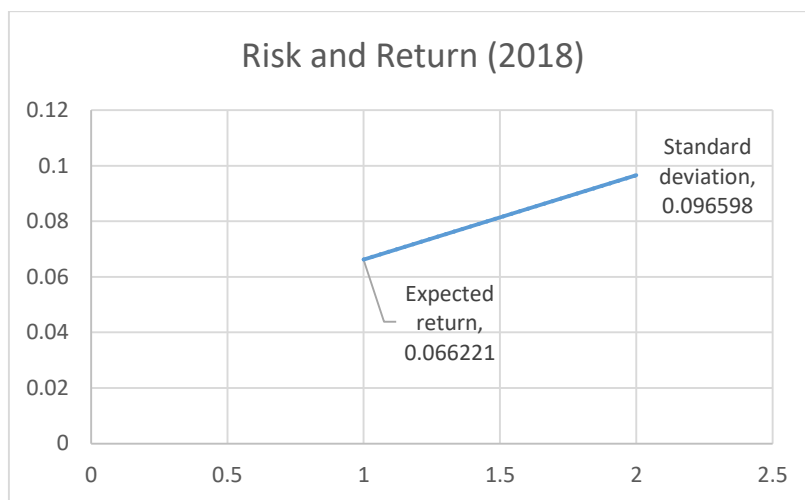
Hypothesis of the study:

Ho: There is no significant relationship between in risk and return

Data analysis & interpretation:

INFOSYS

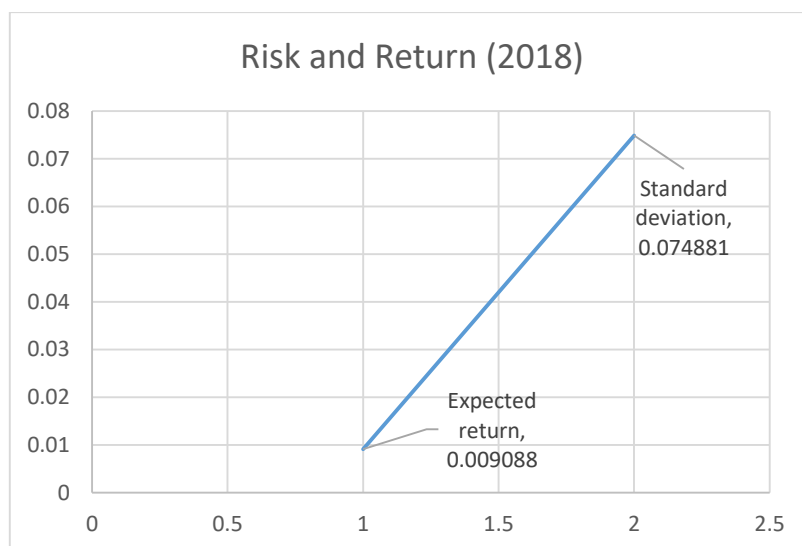
Expected return	Standard deviation
0.066221	0.096598



X represent the mean and standard deviation. Y represent the value of risk and returns. The expected return of Infosys limited as on 2018 is 0.066221 with the risk of 0.096598.

HDFC BANK

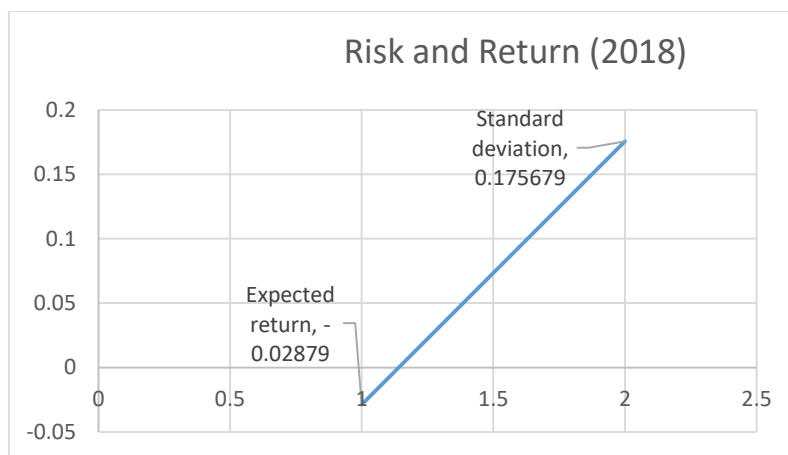
Expected return	Standard deviation
0.009088	0.074881



X represent the mean and standard deviation. Y represent the value of risk and returns. The expected return of HDFC BANK as on 2018 is 0.009088 with the risk of 0.074881.

MAHINDRA AND MAHINDRA LTD

Expected return	Standard deviation
-0.02879	0.175679



X represent the mean and standard deviation. Y represent the value of risk and returns. The expected return of M&M LTD as on 2018 is -0.02879 with the risk of 0.175679.

CORRELATION

Companies	Year	risk	return
INFOSYS	2016	0.199	0.049
INFOSYS	2017	0.112	0.053
INFOSYS	2018	0.096	0.066
HDFC Bank	2016	0.067	0.05
HDFC Bank	2017	0.07	0.11
HDFC Bank	2018	0.074	0.009
M&M	2016	0.087	0.001
M&M	2017	0.059	0.051
M&M	2018	0.175	0.028

R= -0.13767

Conclusion: - as per the statistical tool applied the calculating value is less than 1, so that indicates H0 is rejected and H1 is accepted.

8. CONCLUSION:

The Companies Which Are Under This Study Have Chosen Because In The Information Technology Sector Stocks Are In Boom Stage, Banking Sector Also In Boom Stage And Automotive Sector Also Boom Stage Because Of Demonetization.

Risk and return are inter-related. Investors can't earn without taking risk. They are important aspect in the share market to measure the performance of the stocks. Without examine the risk factor of the stocks can't find the performance of the scrip in the stock market.

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