A Project report

(16MBAPR407)

A Study on Risk and Return analysis of Selected Stocks in BSE Sensex

BY
ABHISHEK.V
(1AZ16MBA04)

Submitted to
VISVESVARAYA TECHNOLOGICAL UNIVERSITY,
BELGAUM

In partial fulfilment of the requirements for the award of the degree of

MASTER OF BUSINESS ADMINISTRATION

Under the guidance of

INTERNAL GUIDE
Dr.Prakash B Yargol
Professor
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EXTERNAL GUIDE
Meghesh.M
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Soladevanahalli, Bangalore-560 107
May 2018

CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

1. This is to certify that **Mr. Abhishek.V**, a student of Acharya Institute of Technology – Bangalore, Pursued 03 (Three) months of Internship with us from 15th January 2018 to 24th March 2018

2. During the Summer Internship, he has successfully completed the project titled **"A study on Risk and Return analysis of selected stocks in BSE Sensex "** under the guidance of Mr. Megesh. M.

3. The Students performance during the Internship and comments on his project work are as under:-

   Mr. Abhishek.V completes assignments in a timely manner, performs quality work that is accurate and thorough, and manages time effectively. Student is responsible, punctual, has good attendance.
   Student expresses thoughts clearly and is professional in dealing with both co-workers and the clients. Initiative asks for work if not assigned and is able to work independently.

We wish him all the very best in future endeavors

(Signature of the Authorized Company Official)

Name : Megesh. M

Designation: Business Head

Date : 24-03-2018

ACHARYA INSTITUTE OF TECHNOLOGY

(Affiliated to Visvesvaraya Technological University, Belagavi, Approved by AICTE, New Delhi and Accredited by NBA and NAAC)

Date: 19/05/2018

CERTIFICATE

This is to certify that **Mr. Abhishek V** bearing USN **1AZ16MBA04** is a bonafide student of Master of Business Administration course of the Institute 2016-18 batch, affiliated to Visvesvaraya Technological University, Belgaum. Project report on **"A Study on Risk and Return Analysis of Selected Stock in BSE Sensex" at J Wings Manifest, Bangalore** is prepared by him under the guidance of **Dr. Prakash B Yaragol** in partial fulfillment of the requirements for the award of the degree of Master of Business Administration, Visvesvaraya Technological University, Belgaum, Karnataka.

19/5/2018

Signature of Internal Guide

Signature of HOD

Head of the Department
Department of MBA
Acharya Institute of Technology
Soldevanahalli, Bangalore-560 107

26 March

Signature of Principal

PRINCIPAL
ACHARYA INSTITUTE OF TECHNOLOGY
Soldevanahalli Bangalore-560 107

DECLARATION

I, Abhishek.V, hereby declare that the Internship report entitled "A Study on Risk and Return Analysis of Selected Stocks in BSE Sensex" at "J WINGS" (Kalyan Nagar, Bangalore) prepared by me under the guidance of Dr.Prakash B Yargol, Professor of M.B.A Department, Acharya Institute of Technology and external assistance by Megesh.M, Business Head, J WINGS.

I also declare that this Internship work is towards the partial fulfilment of the university regulations for the award of degree of Master of Business Administration by Visvesvaraya Technological University, Belgaum.

I have undergone a summer project for a period of Ten weeks. I further declare that this project is based on the original study undertaken by me and has not been submitted for the award of any degree/diploma from any other University / Institution.

Abhishek.V

Place: BANGALORE

Date: 28/05/2018

Signature of the student

ABHISHEK.V

1AZ16MBA04

ACKNOWLEDGEMENT

I wish to thank all the respondents from the firms who spent their valuable time in discussing with me and giving valuable data by filling up the questionnaire.

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Last, but not least, I want to express my deep appreciation to my parents for their unstinted support.

ABHISHEK V.

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Executive Summary

This project was carried on to know the working environment in a company and it is a part of our curriculum. This project gives us pre- professional experience and gives knowledge and skills prior starting our carrier. This project has exposed us to understand the working of company, industry and take up in depth study relating to an issue. There will be many issue in an organization where in I have chosen one of those issue for the study. This project has helped me in understanding business operations and challenges faced by the company. The theoretical knowledge which I have gained in the class room was helpful in this project and applied it practically. As a requirement of Master of Business Administration course as per the requirement of VTU this project has been taken up.

This project was carried at J WINGS, which has been providing advisory based services and products for his or his clients to finally video display their folder of monetary and financial goals. Training and educating individuals on universal markets to dress their skills to take part in the commercial world. This project enabled us to develop comparison between theoretical knowledge and practical application.

The topic selected for the study is "A Study on Risk and Return Analysis of Selected Stocks in BSE Sensex". The objective of taking up this topic is to analyze the risk and return associated with the stocks for effective investment and Portfolio Management.

This project covers Company profile, Industry profile, theoretical background, data analysis and interpretation of data. Graphs and charts have been put for data analysis for better and easy understanding. Project also includes Financial statement and balance sheet.

CHAPTER: 1

INTRODUCTION

1.1 Introduction

This report will describe about my 10 weeks internship. It was carried out at J Wings Manifest Bangalore. My internship started from 15th of Jan and ended at 24th March. The topic chosen for the study is evaluation of Risk, return and portfolio management. This report says about the company profile, industry profile followed by the theoretical background, literature review of the study and also analysis and interpretation of data collection and will end up with findings, suggestion and conclusion of the study.

1.2 Industry Profile

The authorized place for trading securities can be called as stock exchange. The securities can be furnished by companies, public sector undertakings, government bodies and semi government bodies for raising stake and getting resources. Securities are defined as monetary claims and also includes shares , bond's and debentures etc.

Indian stock markets are one ancient one in Asia. It is having a history of nearly 200 years.east india company was principal foundation in the ones early and house in its credit secutities which was transacted at 18th century . Towards the top of American civilized war the merchants who flourished out civilized war in 1874, found a space in a road where people would advantageously gather and execute business. Now this road is popularly known as Dalal Street. In 1887, they erewhile familiarized Bombay, the established brokers and native experience society which is now referred to as Bombay stock exchange. In 1895, the exchange gained a explanation why in the same road and it was introduced in 1899 and stock exchange at Bombay was mediatised.

Prem Chand and Roy Chand was a dominant speculator at during those time, and he well known help in starting up traditions, procedures and conventions for transacting stocks at Bombay stock exchange and that's soul choke followed.

Bombay Stock Exchange (BSE):

In 1956 the govt of India ratified and perceived the Bombay exchange as the first stock exchange in India under securities contracts act. Bombay stock exchange is Asia's earliest stock exchange and it claims impending world's fastest stock bourse. Bombay stock exchange is now spanning 133 years of existence.

Over the period of 133 years, Bombay stock exchange has an uptrend growth in corporate sector of India by providing an effective and valuable get right of entry to resource. Today, Bombay stock exchange is the world's number 1 when it comes to the main variety of companies listed and stands 5^{th} on the earth in agreement numbers.

The index of Bombay exchange is sensex. It is Indian earliest stock exchange hand which enjoys an recognizable preeminence, its also tailed worldwide. This index contains 30 stocks personifying 12 crucial sectors. Apart of your SENSEX, BSE offers 21 indices, in conjunction with 12 sectoral indices.

The group panel of amalgamated control has allotted Bombay stock exchange as the golden peacock global award for its initiatives in collative common responsibility. The anniversary accounts and reports of the year ending Mar 2006 and Mar 2007 of Bombay stock exchange have been awarded for excellence in financial reporting.

National Stock Exchange personality being the largest stock exchange in India and triennial biggest inside the world. At hand out, In India you will discover 23 approved and accepted stock exchanges. The stock exchanges are as follows:

- Bangalore stock exchange, (Bangalore)
- Ahmedabad stock exchange, (Ahmedabad)
- Chennai stock exchange, (Chennai)
- Delhi stock exchange, (Delhi)
- Madhya Pradesh stock exchange, (Indore)
- Cochin stock exchange, (Cochin)
- Pune stock exchange, (Pune)
- Hyderabad stock exchange, (Hyderabad)
- Jaipur stock exchange, (Jaipur)
- Calcutta stock exchange, (Kolkata)
- Meerut stock exchange, (Meerut)
- Over the counter exchange of India (OTCEI), (Mumbai)
- Guwahati stock exchange, (Guwahati)
- Bhubaneshwar stock Exchange, (Bhubaneshwar)
- Uttar Pradesh stock exchange, (Kanpur)
- Ludhiana stock exchange, (Ludhiana)
- Coimbatore stock exchange, (Coimbatore)
- Vadodara stock exchange, (Vadodara)
- Capital stock exchange Kerala ltd (Thiruvananthapuram)
- Canara stock exchange, (Mangalore)
- Magadh stock exchange, (Patna)

On 9th of July 2007 SEBI has withdrawn its license from Saurashtra stock exchange, Rajkot due to its deedless working. It is said that Gujrat has highest number of traders in India. In India there are 20 million Demat accout holders and only 4.288 million active users which is less than of the figures.

1.3 **Company Profile**

About the Company:

J wings has been providing advisory based services and products for his or his clients to finally video display their folder of monetary and financial goals. They further cater assist relating to stock browsing, advisory products and services, purchase making plans, wealth formulation and insurance.

Training and educating individuals on universal markets to dress their skills to take part in the commercial world. J wings got here untold the hope came alive with the purpose to improve, strengthen and supervision to new comers to the market world. With the understanding and lifetime of expertise in knowledge and years of experience in trading, they have custom designed the teaching compute and produced it uncomplicated for a beginner to remember the commercial market.

These courses are target for party investors or traders who desire to how to use an analogous tools and methods as artist traders.

These courses be offering an entire teaching and coaching enjoy specializing in trading basics, technical analysis, risk management, and highly flourished skills of accomplishment for practically any transaction instrument.

Company core values:

Integrity:

There is no shortage of analysis interested in investing.

Collaboration:

Have tie ups with various trading agencies national and international.

Accountability:

Compliance and due diligence with regulators is on top priority

1.3.2 Vision mission and quality policy

J Wings Vision:

To give the most relied & admired experienced professional services firm strongly identified by our clients turning in first class services and products, that is quality for payment and greater than their expectations.

J Wings Mission:

To cultivate relevant and living aspire with the clients by providing them the best quality products and services & cope with each view in their monetary associated issues.

1.3.3 Services provided by J Wings:

J wings businesses can widely classified into the following categories:

- **Training & Development:**

  J wings provides training and carry workshops regarding Indian stock markets and forex currency trading to students and new traders to plan understanding and enlarge business. Regular tests and practice in demo account gives self assurance to students to cultivate commitment working of investment. Training and coaching individuals on figuring out the concepts of investment in depth plus problem solving time examples

- **Investment Planning:**

  To shield the future from any uncertainties or disasters, we have to perform right kind of long run investments to succeed in specific goals in life. To invest correct and certain, we have to learn about planning strategies, avoiding risk, inflation. Thus J wings advocate to enhance future making plans.

- **Health Insurance:**

  As per saying health is wealth, Health is the main stream of life. To ensure that health undamaged your commercial strength, every person must have the proper insurance

policy for their protection from upcoming diseases. So Jwings is tied up with many well known insurance like star health.

- **Indian Stock Market & International Currency Markets:**

  J wings is associated with Zerodha company for opening Demat accounts for their clients and also associated with Grand Bloom Forex limited for opening forex account for trading currencies.

- **Advisory Services:**

  For effective portfolio management and real estate services Jwings gives advisory services for effective investment and trade in and around Bangalore. Clients including strong total assets investor get advices from qualified and specialist consultants at j wings.

  Wealth handling is a part of recommending services given by J wings. It also gives suggestion to companies for right time to enter retail market or IPO's .

  Portfolio supervision is one more region where revenue is being pooled by clients and notify them to put money in Blue chip stocks and currency market.

- **CITI & HDFC Bank Financial Products:**

  The employees and clients of jwings can get credit cards of HDFC and CITI bank this extended its operations in wide range.

* Jet Privilege HDFC Bank Platinum Credit Card
* Money Back Credit Card
* Business Money back Credit Card
* Times Titanium Card

1.3.4 Areas of operation

J Wings is a subordinate company of FW Markets Ltd which was incorporated and registered in 2003 St.vincent and grenadines under license no 20779 IBC 2013. Company's legal address is Cedar Hill Crest post box number 1825, villa, St. Vincent and Grenadines.
In India it mainly operates in Bangalore and Chennai.

1.3.5 Infrastructural Facilities:

All the branches of j wings are automated and transactions are done with easy operation

1. Network Services
2. Intranet and internet
3. Conference room
4. Training room
5. IT Services
6. Company e-mail
7. Easy medical access
8. Energy and power management
9. Purified Water
10. Brilliant workplace.

All the representatives and advisors of the company will get their particular identity card as they are portion of J wings and modernize things, like dividend, commission account and restrain course of target, like dividend, commission account, restrain course of target.

1.4 Competitors for J wings:

Every business will have its competitors and the fittest will survive in the market. J wings is also a tough competitor for many other stock broking firms

Below is the names of Stock broking firms in Bangalore. The list contains well known popular national stock exchange which has its branches all over the cities. Most of the brokers cater big selection of financial services and feature many offices, branch and sub brokers all over the cities.

List of major competitors for J wings company:

- ICICI Direct (ICICI Securities)
- Share khan (Share khan Limited)
- HDFC Securities
- Reliance Money (Reliance Securities Limited)
- Kotak Sec (Kotak Securities Limited)
- HSBC (HSBC Invest Direct India Limited)
- SBI Capital (SBI CAP Securities Limited)
- India Info line Pvt Ltd
- Standard Chartered Securities (India) Limited.
- Angel broking Pvt. Ltd.
- Anmol share broking Pvt ltd
- Religare Online Services
- Tradeplus Online
- Geojit Financial Services Ltd

1.5 SWOT Analysis of J Wings

SWOT analysis is an essential tool for measuring the pros and cons of the firm. It helps the firm in identify their condition and set up strategies for the development of the firm. Every firm must perform swot analysis to adapt changes and update about market.

STRENGTHS:

- Good working Environment
- Proficient and competent employees.
- Led by the enthusiastic and capable professionals.
- Effective live trading, with reasonable advisory charges.
- Easy interchangeability
- The newest evaluation tools.
- On time risk bearing ability.
- Metatrader4 application.

WEAKNESSESS:

- Lack of technical experts in trading
- Lack of innovation or and less adaptability to changes
- Over spirituality like looking at the time for trading

OPPORTUNITIES:

- Digitalization emerging as a new trend.
- Huge market for exposure of the talent.
- New strategies which are yielding more profits with less time and low cost eg: Robotics.

THREATS:

- Internet can even act as demon sometimes.
- Lack of suggestions in selection of stock brokers.
- Instability in decision making.
- Inconsistency in power supply, this is the major threat for many firms because everything works on a computer.

1.6 Future growth and Prospects

Over the years the stock market has drastically grown and even the number of investors are also increased, which is a very good indicator of growth.

Value based proactive PMS (Portfolio management service) to resident and non resident Indians.

Debt market trading is both retail and whole-sale segment for resident investors as well as overseas bodies.

Primary value based international portfolio and appropriate resource allocation to local Indians.

1.7 Financial Statement

Ratios

Table no 1: LEVERAGE RATIOS:

SL No	Ratio	2016	2017	2018
1	Debt Equity Ratio	0.56	0.97	1.14
2	Debt to Assets Ratio	0.41	0.64	0.58
3	Net Worth Ratio	0.54	0.50	0.71

Table no 2: PROFITABILITY RATIOS

SL No	Ratio	2016	2017	2018
1	Earnings Margin Ratio	21.21	25.49	33.89
2	Return on Capital	5.16	7.87	6.38
3	Return on Equity	4.10	6.78	7.01

Basically, if a company recovers a large portion of its net income the company can foretaste uptrend bloom or chance of expanding the business. Growing companies can find elevational retention ratios more than the established blue chip companies, but other factors are also considered like firmness and industry analysis etc. Hence from the above table considering all the ratio's such as Debt Equity Ratio, Net Worth Ratio, Earnings Margin Ratio and Return on Equity is seen that the company is stable at present without any higher profits and waiting for a future growth.

CHAPTER 2

CONCEPTUAL BACKGROUND AND LITREATURE REVIEW

2.1 Theoritical Background of study:

Every stock is associated with two principle factors risk and return. The risk and return can give a clear picture of the stock to the investor to make his investment decision making. The analysis of risk and return will help the investor to manage an effective portfolio. Managing an effective portfolio purely depends upon the nature and understandings of the investor. Seeking in depth knowledge about the market trend, instruments available in the market and market fluctuation can help the investor in understanding the market. Portfolio management a various group of securities lined up which behaves differently yields interest payment and dividends. If the securities are grouped in a correct and systematic manner it will yield high returns. Human tendency is that they always want low risk with higher return, but sometimes it is possible not all the times. Each individual securities have their own rate of risk and return attributes. The viability of return is turned as security falls, the investor may have to incur huge losses. Each and every investors differs upon their ability to bear risk. They can be classified into low risk taking, high risk taking and moderate risk taking investors. The investors can diversify their risk by investing in different industry and sectors rather than investing in one particular industry. So this type of investment can make your investment less riskier, as the risk is spread to different industry. However if one industries share price falls the return of that particular industry is affected the securities belonging to another industry may yield returns. This results in diversification of risk. Another important question pertains to how many portfolios may be constructed. We can form any number of portfolios with the given set of securities but the investor has to decide the portfolio needs to be selected to the share holder. Rational investor search for the most efficient of these portfolios. Portfolio structured is to design portfolio that furnishes low risk with high risk this type of portfolio is known as an risk and return. His method of portfolio selection came to known as Markowitz's model. Markowitzs works mark the beginning of today's modern portfolio theory. Markowitzs showed that for a given level of estimated return and for a given level of estimated return and for a given security world, finding a specific portfolio that dominate the others requires knowledge of the covariance or correlation

matrix between all possible security combinations. Subsequent to the publication of his paper, numerous investment firms and portfolio proportions so as to minimize portfolio managers began to program Markowitz algorithms which prescribed portfolio proportions so as to minimize portfolio variance.

Elaborative study of the topic:

Risk and return analysis

Risk: Investor cannot expect return without considering the risk involved in the stock market. Risk refers to probability of expected return differ from the actual return on investment. There are two types of risks involved

1. **Systematic Risk**

There are some which we cannot control, those risks are called as systematic risk. If we know how to accept the risk as the primary portion of the investment, we can allocate the risk in an efficient manner and diversify the strategies which can help in some situation. By learning how to avoid risk it can make a smart investment plan. The external factors of the company tends to create risk which are uncontrollable by the company. Risks like interest rates, recessions and wars are inevitable in nature and cannot be diversified. These are the net examples for systematic risk.

a) Market Risk:

There are certain possibilities that financial markets may collapse and make a wave effect on portfolio. For instance: all the stocks will decrease its value when the whole stock market is affected, until the market recovers even the stocks cannot recover.

Some companies doesn't survive from market downturns this is because of the introduction of the market risk, which can even cause loss of principle. But most common risk involved is selling your shares when prices are low at the time of market collapse.

b) Interest rate risk:

There are certain risks that the interest rate may possibly go up. If the interest rate goes up, inflation increases and the fixed income investments decreases, since they are worthless because the newly issued bonds will pay much high rate of interest. The incline interest rate also points out low stock price, Interest yielding investments with less risk and high return attracts the investors to pool more money into them.

c) Purchasing power risk:

The loss of the purchasing power of currency may result in variation in the return. Inflation is the main reason behind the loss of purchasing power. When there is more risk in purchasing the less return you get. Purchasing power also effects on the standard of living.

Inflation can be either be forenamed as demand pull or cost push inflation. In demand pull the goods and services will be in their excess supply. Factors of production, economy will not be able to supply more goods in short run at the full employment level and the demand for the products will make the price higher. The equilibrium between supply and demand is attained at high price.

2. Unsystematic Risk

Unsystematic risk is usually occurred due to inefficiency in management, changes in technological in the internal process of company, the availability of raw materials, customers taste and preferences changes and labour problems. The unsystematic risk is cataloged into two types.

a) Business Risk:

Business risk is an unsystematic risk which is caused by operating environment. Business risk is arrived when there is an inability in the firm to maintain a competitive edge and when the growth becomes stagnant and which reflects in the operating income and the expected dividends. So, this indicated the business risk. Business risk may be any risk which can depreciate the firms net assets or net income that could symbolically lower the return of any

security based on it. Some business risks are sector risk which affect all the companies under the particular sector, while some business risk only affect particular companies.

b) Financial Risk:

Financial risk refers to the instability of revenue to equity capital to debt capital as the debt capital raises the capital by taking loans. Capital structure of the company is related with financial risk of company. Equity funds and borrowed funds are associated with Capital structure of the company. The appearance of debt and preference capital makes the way to engagement of interest paying or prefixed rate of dividend.

The changes in the capital structure is the main reason for this interest paying scenario. It can be called as leveraged risk and it can be expressed in the form of debt-equity ratio. Surplus of loans over the equity capital in the capital structure of the firm indicates that the firm is Excess of debt over equity in the capital structure of a company indicates that the company is hugely geared even after per capital earnings of such company might be more. The risk of winding up of the firm due to its incapacity to honour its commitments towards creditors and lenders due to highly dependence on the borrowings. So investors must be careful and aware of risk associated with the investment and the portfolio managers must be dedicated keeping track of the market fluctuations.

Return: Return is the main objective of the investment. Every investment is made with an expectation of earning returns or dividends. Return to investors is of two types, current yield and capital appreciation. Current yield is the interest rate we get from shares and capital appreciation is which we get after liquidating the shares. Returns are of two types:

1. **Historical return**

   The returns which are often associated with the past performance or old data is called as historical return. it is a post-mortom analysis of investment, which lacks insight for future. historical return is more accurate and less risky compared to expected return as it deals with the past performance records. Historical return is also called as actual return.

2. **Expected return.**

   Return calculated considering the future estimates and calculation is called as expected return.

Portfolio management: A various group of securities lined up which behaves differently yields interest payment and dividends. If the securities are grouped in a correct and systematic manner it will yield high returns. The two approaches in portfolio securities are:

1. Modern approach
2. Traditional approach

2.2 Literature Review:

Nerlov (1968), From standard and poor index of 800 companies scrip taken to find the factors influencing the return of scrip for the span of 15 years into inspection. Retained earnings, sales and growth in earnings were noticed by the study which showed that there is decline in the return of the scrips for the intent of noticing impact of the factors on the return. Asset growth, turnover of inventory, liquidity and cash flows did not showed any impact on the return of the scrip Where as leverage and dividend had strong impact on market return in long run. It showed those variables were demonstrated to be extra.

Baesel (1971) by increasing the length of estimation time he noticed that individual security betas were much stable on ground. He also demonstrated that when estimation time is longer the beta stability has shown uptrend.

Sharpe & Cooper (1972) By taking US samples for the period of 1931-1967 with the support of applying transition matrix method he proved that individual security beta indicated huge stability over the years.

Meyers (1973) taking 15 years into consideration from the duration of 1952 to 1967 he came up with the additional proof on stability of individual security beta and he noticed that for at least 7 years betas were stable and beyond that the betas of individual securities were still stable by considering the earlier assumption of beta of individual security.

Barry and Wicker (1976) they came up with a result that the changing attributes of the business like structure of capital, policy of business, strategies of marketing and economic environment has also made an impact on deciding the beta stability apart from components like number of portfolios and duration of sub-periods impacting on beta stability.

Basu (1977) from Compustat file of new York stock exchange 1400 industrial firms were taken into study for the period of Sep 1956 to Aug 1971, the higher average returns of the stocks had lower price earning ratio than that of the stocks with higher P/E ratio

Ramachandran (1989) to examine the validity of CAPM (Capital asset pricing model) in local market,132 scrips in bombay stock exchange was taken into consideration for the duration of jan 1979 to dec 1986. He noticed that there is proof to display that CAPM holds good in Indian market.

Allen (1994) at the portfolio level and individual level allen took 2500 US security samples and wrapped up showing that portfolio betas was no less stable than individual or no more stable than individual securities. The result attained by allen was different with many other researches.

Vipul (1998) examined that the impact of the company size, group of industry and liquidity on beta. From this research he emerged with the outcome, industry groups and liquidity did not have any influence systematic risk whereas sixe had an influence on beta value.

Chawla (2001), out of 36 companies 20 companies rejected the “hypothesis of beta stability” for the period of april 1996 to march 2002 from the samples chosen by chawla.

Shijin and Crew (2007) from march 1996 to march 2006 shijin carefully tested the return and risk elements of average stocks in indian market by selecting 70 sample companies from Bombay stock exchange. The result of Vector Autoregressive Approach pointed that market risk proxy had constant effects on Indian stock market stock returns.

Irala (2007) from the period 1994 to 2006 irala selected 660 companies as samples to find the proof for instability in their beta value.

Drake, John R (2006): risk associated with portfolio management and information technology. It is description of various factors about the IT project of portfolio management. It also examines the project, financial management and the development of the project it has 5 categories of risk in the project as it is the major tool to analyze various risk of portfolio individuals.

Kushalapas, Sharmila, Kundar (2014): Risk management through efficient portfolio; Risk management is the procedure of identifying, analysis in investment decision making. It can be subsequent to the companies as well as individual. It has two steps of categories the primary one is what risk can happen in an investment and handling those risk in better way of investment. It is the process of analysing risk in the finest way of investment risk exposure and trying to reduce in to various, including diversification of portfolio .It has various kind of securities like bonds, shares, and other assets and securities in order to meet the benefits for the investors. Portfolio is like a basket full of stocks in this no other investments are included only the stock is involved. Risk and return o f various portfolio is done by using Markowitz model and William Sharpe model to maximize the return of given value.

Pravin Narayan, Mahamani (2012): 'Investment analysis and portfolio management by keithe brown and frank Reilly' In this study it has divided in to 7 parts that is investment background development in investment theory, principles and practices of stocks, analysis management of common stocks bonds. Derivative security analysis, specified and evaluation of assets management, other financial risk and investment analysis.

Haim, Shalit(2014):" Portfolio risk management using the Lorenz curve" from the lorenz curve we can analyze the value or amount of risk and return in a different conditional value of the risk and financial data. the Lorenz curve is very easy to calculate because it requires only the asset value in ascending order. it is carried out to study the risk for all investors of individuals.

Maura Quinn ranter (1988):

'How to identify and evaluate industry risk in the loan portfolio'

It analyzes various kinds of risk portfolio level for clear approach and comprehensive industry risk for bank affected for all areas by industry analysis there are five major steps to approach financial risk and identify the economic industry risk in loan portfolio management

Byrne, Lee; Stephen, Peter (2000): 'The influence of market risk on risk reduction of property portfolio reduction'

In the investigation the amount of which risk can be achieved with in the portfolio risk and individual property market in higher and lower beta value portfolio. In this particular investigation it points the reachable level of risk reduction is negative and it is linked to the level of market risk of the individual assets.

David and Woods (2002): " Integrating analysis of risk, valuation and starategy to the benefit of portfolio optimization"

The optimization of oil and gas within a portfolio requires as analysis of individual to develop the stock in the risk management. It has major four numerical techniques a) Simulation b) Statistics c) Simplex d) Spread Sheet.

Patrick J Wilson , John Okuneva (1996).

Proof of segmentation in international and domestic property markets.

CHAPTER-3

RESEARCH DESIGN

3.1 Statement of Problem:

To analyze the risk and return associated with selected stocks and to find which of the following stocks are best for investment.

3.2 Need for Study

This need for the study depends upon the perspective of the investor. It's a dream of many investor to amplify his investment by having an expansive number of shares with him. This study will let the investor, financial expert and advisor to know the risk involved in the individual stocks and return the investor can get in future this analysis will help to maintain effective portfolio. Make investment to create a second source, this study enables us to create us a second source and it also helps the speculators to improve money management.

3.3 Objective of the Study:

1. To measure risk of the selected stocks in Sensex using standard deviation and beta values
2. To measure return of the selected stocks in Sensex using mean returns
3. To notify investors by analysing the risk and return associated with the stocks invested by them

.

3.4 Scope of the Study:

1. The research is derived only on the data collected from period 2014 to 2018.
2. Sensex is the bench mark index used for the study.
3. The impact of only a sensex on the selected companies stock included in the index are considered in the study.

3.5 Research Methodology:

Research design: Analytical design

The current study is described as Analytical one.

Data analysis

The data of individual stocks and Sensex were collected from the official Bombay stock exchange website and the companies selected for the study are listed on Bombay stock exchange. The data was collected for 5years for the study (2014-2018).

Data collected from www.bseindia.com.

Secondary data collection method is being used.

Frame work for data analysis

Stock return= $\frac{\textbf{Current year price} - \textbf{Previous year price}}{\textbf{Previous year price}} \times \mathbf{100}$

Market return: it is a return on the market portfolio of every traded securities.

Market return = $\frac{\textbf{Current year index} - \textbf{Previous year index}}{\textbf{Previous year index}} \times \mathbf{100}$

Sensex is the benchmark index chosen for the study and sensex is called as return on market.

Arithmetic mean return (AM):

Statistics is an effective tool used in portfolio construction deals with a sequence of holding period returns. It is significant that holding periods must be equal length. The arithmetic average of all these is called arithmetic mean return.

AM= $\Sigma \frac{Ri}{N}$

Where,

Ri is return of market or stock return

N= Number of years.

Standard Deviation:

Sometimes risk is involved in getting the different expected return than that of actual return on investment. Technically, this can be measured by setting standard deviation through statistics. Risk is a probable condition of of losing investment because of market uncertainties or bad management of portfolios. To measure the risk of secutrities standard seviation is being used. The formula for standard deviation is

$$\sigma = \sqrt{\frac{\sum(\text{Ri} - \bar{\text{R}}\text{i})^2}{\text{N}}}$$

Beta and its calculation:

The respective measure of non diversifiable risk is called as Beta. Beta is an index of degree of movement of an assets return in response to a change in the market return. Formula for calculating Beta is

$$\beta\text{i} = \Sigma \frac{(\mathbf{Ri} - \bar{\mathbf{R}}\mathbf{i})\Sigma(\mathbf{Rm} - \bar{\mathbf{R}}\mathbf{m})}{\Sigma(\mathbf{Rm} - \bar{\mathbf{R}}\mathbf{m})^2}$$

Sharpe's single index model:

In Sharpe's index model because of the common movement in the stock market the stocks vary together. The co movement of stocks with a market index may be calculated with the assistance of a simple linear regression analysis, taking the returns on the market index(Rm) as independent variable and returns on an individual security as dependent variable (Ri)

3.7 Limitations of the study:

1. Only few selected stocks listed in sensex has been covered in the research.
2. Only 5 years closing price of the selected companies are taken for the analysis in this present project.
3. The study limited only to 20 stocks.
4. The results of the study may not hold good for longer period of time due to volatility in Indian stock market.
5. In this study only limited statistical tools are used.

3.8 Chapter scheme:

Chapter-1

Introduction

First chapter consists of a brief introduction about the internship, followed by an overview of industry and company profile. Further it says about the companies vision, mission and quality policy, products and service profile, areas of operation, infrastructural facilities provided at the company and competitors for the company. It also analyses the strength, weakness, threat and opportunities. This chapter will end up with the future growth and prospectus and the financial statement of the company.

Chapter-2

Conceptual background and literature review

Chapter 2 consists of theoretical background and elaborative study of the topic. The chapter will wrap up with literature review of many authors with the research gap.

Chapter-3

Research design

This chapter reveals the statement of the problem for the study, the purpose of study and the need, objective and scope of the study. It also includes the research methodology used in the project. In the end it shows the limitations of the study and chapter scheme.

Chapter 4

Analysis and interpretation

This chapter is the life of the project. This chapter includes the data collected from different sources and further the analysis of data will be conducted and interpretation for the same data will be done

Chapter 5

Findings, suggestion and conclusion

This chapter wraps up the project by showcasing the summary of findings and the suggestion of the researcher to the investors. Finally the project will end up by the conclusion.

CHAPTER-4

ANALYSIS AND INTERPRETATION

Table 3: Table showing return and risk of Sensex

Year	Closing Price	Rm	(Rm - $\bar{R}$m)	(Rm - $\bar{R}$m)²
2013	21170.68			
2014	27499.42	29.89389099	18.30117787	334.933112
2015	26117.54	-5.02512417	-16.61783728	276.152516
2016	26626.46	1.948575555	-9.644137557	93.0093892
2017	34056.83	27.90596272	16.3132496	266.122113
2018	35160.36	3.240260471	-8.352452641	69.7634651
		ΣRm=57.96356556		Σ(Rm- $\bar{R}$m)² 1039.98059

Analysis and Interpretation:

$\bar{R}m = \Sigma \frac{Rm}{N} = 11.59$

$\sigma m = \frac{\sqrt{(Rm-\bar{R}m)^2}}{N} = 14.42$

Table 4: Table showing risk and return of Adani Ports and Special Econmic Zone Ltd

Year	Closing price	Ri	(Ri - $\bar{R}$i)	(Ri - $\bar{R}$i)²	(Rm - $\bar{R}$m)	(Ri -$\bar{R}$I) (Rm - $\bar{R}$m)
2013	155.3					
2014	318.45	105.0547	77.26764	5970.289	18.30118	1414.089
2015	258.5	-18.8256	-46.6127	2172.739	-16.6178	774.6014
2016	268.1	3.713733	-24.0734	579.5265	-9.64414	232.1668
2017	404.65	50.93249	23.1454	535.7095	16.31325	377.5767
2018	396.8	-1.93995	-29.727	883.6967	-8.35245	248.2937
		ΣRi=138.9354		Σ(Ri- $\bar{R}$i)² =10141.96		Σ(Ri-$\bar{R}$i)(Rm-$\bar{R}$m) =3046.727

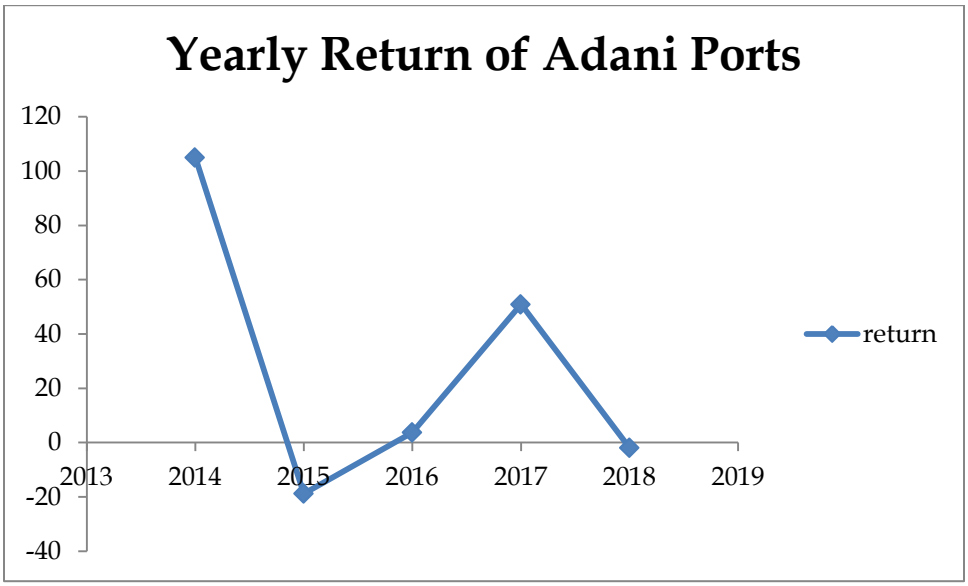
$$\bar{R}i = \Sigma \frac{Ri}{N} = 27.78708886$$

$$\sigma i = \frac{\sqrt{(Ri-\bar{R}i)^2}}{N} = 45.03$$

$$\boldsymbol{\beta} i = \frac{\Sigma (Ri - \bar{R}i)\, \Sigma(Rm-\bar{R}m)}{(Rm-\bar{R}m)^2}$$

$$= 2.92$$

Graph no 1: Graph Showing Yearly Return of Adani Ports and Special Economic Zone.



Interpretation:

From the above table we can see that the return of the stock of Adani Ports and Special Economic Zone is 27.78 and Risk is 45.03.Beta of the stock is 2.92 since, the beta is greater than 1 it is more riskier. Hence it is suggested that the stock is associated with greater risk and not suitable for investment. From the above chart we can find the fluctuations of yearly return. At 2014 the return is very high and showed an uptrend but in 2015 we can a drastic drop in the return which showed a downtrend. In 2016 in return has been slightly increased and in 2017 we can see high increase of 50.9 points but again in 2018 there is a fallback of return.

Table 5: Table showing risk and return calculation of Asian Paints Ltd.

Year	Closing Price	Ri	(Ri - $\bar{R}$i)	(Ri - $\bar{R}$i)²	(Rm - $\bar{R}$m)	(Ri - $\bar{R}$i) (Rm - $\bar{R}$m)
2013	490.75					
2014	751.75	53.1839	32.04996	1027.2	18.30118	586.552
2015	881.9	17.31294	-3.82101	14.6001	-16.6178	63.49688
2016	891.35	1.07155	-20.0624	402.4997	-9.64414	193.4845
2017	1157.9	29.90408	8.770134	76.91525	16.31325	143.0694
2018	1206.5	4.197254	-16.9367	286.8515	-8.35245	141.4629
		ΣRi=105.6697		Σ(Ri- $\bar{R}$i)² 1808.066		Σ(Ri-$\bar{R}$i)(Rm-$\bar{R}$m) 1128.066

$\bar{R}i = \Sigma \frac{Ri}{N} = 21.13$

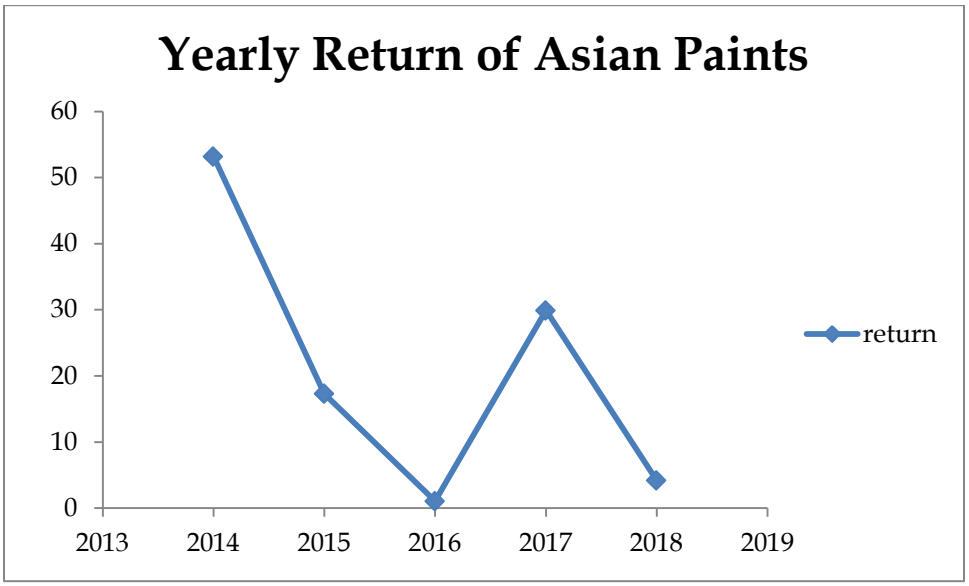
$\sigma i = \frac{\sqrt{(Ri - \bar{R}i)^2}}{N}$

= 19.01

$\boldsymbol{\beta} i = \frac{\Sigma (Ri - \bar{R}i)\, \Sigma(Rm - \bar{R}m)}{(Rm - \bar{R}m)^2}$

= 1.08

Graph no 2: Graph Showing Yearly Return of Asian Paints.



Interpretation:

From the above table we can see that the return of the stock of Asian paints is 21.13 and Risk is 19.01. Beta of the stock is 1.08 since, the beta is greater than 1 it is more riskier. Hence it is suggested that the stock is associated with moderate return and moderate risk and it is suitable for investment. From the above chart we can find the fluctuations of yearly return. in 2014 we can see that the shows 53.1 points but for the next 2 years we can see only downtrend. In 2015 the price was dropped to 17.3 and in 2016 1.07 which still went downwards. in 2017 again we can see the raise of the return 29.9 points and for the next year 2018again it showed a fall in price to 4.19. so this stock has never touched negative returns hence it is very good stock to invest.

Table 6: Table showing risk and return calculation of Axis Bank Ltd.

Year	Closing Price	Ri	(Ri - $\bar{R}$i)	(Ri - $\bar{R}$i)²	(Rm - $\bar{R}$m)	(Ri - $\bar{R}$i) (Rm - $\bar{R}$m)
2013	1299.65					
2014	502.05	-61.3704	-50.9483	2595.731	18.30118	-932.414
2015	450.7	-10.2281	0.193985	0.03763	-16.6178	-3.22362
2016	450	-0.15531	10.26674	105.4059	-9.64414	-99.0138
2017	562.4	24.97778	35.39983	1253.148	16.31325	577.4862
2018	532.4	-5.33428	5.087769	25.88539	-8.35245	-42.4953
		ΣRi= -52.1103		Σ(Ri- $\bar{R}$i)² =3980.208		Σ(Ri-$\bar{R}$i)(Rm-$\bar{R}$m) -499.661

$\bar{R}i = \Sigma \frac{Ri}{N} =$ -10.422

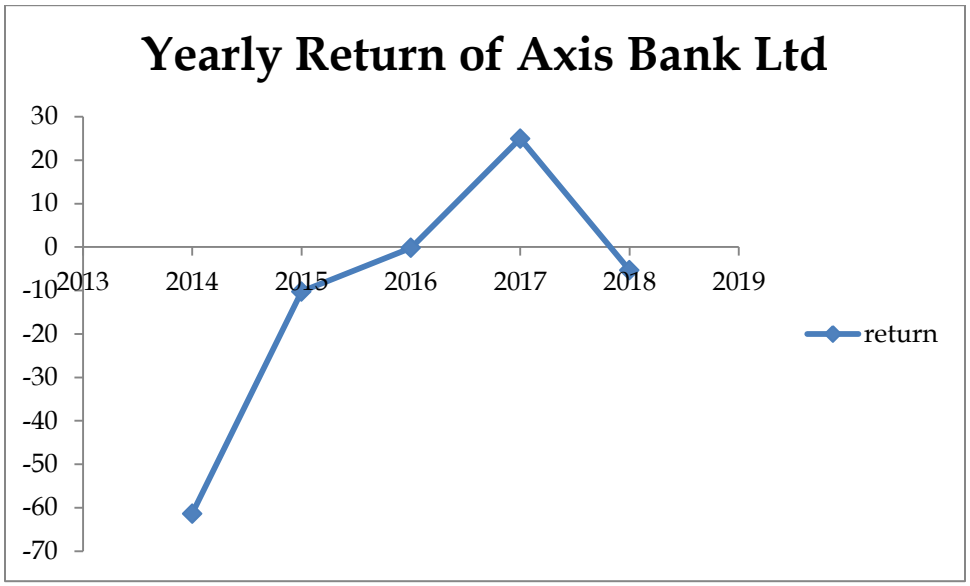
$\sigma i = \frac{\sqrt{(Ri-\bar{R}i)^2}}{N}$

= 28.21

$\boldsymbol{\beta} i = \frac{\Sigma (Ri - \bar{R}i)\, \Sigma(Rm-\bar{R}m)}{(Rm-\bar{R}m)^2}$

= -0.48

Graph no 3: Graph Showing Yearly Return of Axis Bank Ltd.



Interpretation:

From the above table we can see that the return of the stock of Axis bank is -10.422 and Risk is 28.21. Beta of the stock is -0.28 since, the beta is lesser than 0 it is more riskier. Hence it is suggested that the stock is associated with low return and High risk and it not suitable for investment. From the above chart we can find the fluctuations of yearly return. in 2014 there is a negative return found, in 2015 the return has been slightly recovered but still didn't cross negative return. in 2016 the graph shows return is in negative return itself finding difficult to cross positive returns. In 2017 the return went towards 24.9 which showed an upward trend again in 2018 the prices fell back to -5.33. so this stock is constantly showing negative returns hence not good for investment.

Table 7: Table showing risk and return calculation of Bajaj Auto Ltd.

Year	Closing Price	Ri	(Ri - $\bar{R}$i)	(Ri - $\bar{R}$i)²	(Rm - $\bar{R}$m)	(Ri- $\bar{R}$i) (Rm - $\bar{R}$m)
2013	1910.55					
2014	2438.45	27.63079	17.5483	307.9428	18.30118	321.1545
2015	2484.8	1.900798	-8.18169	66.94008	-16.6178	135.962
2016	2633.85	5.998471	-4.08402	16.67921	-9.64414	39.38684
2017	3323.2	26.17271	16.09022	258.8953	16.31325	262.4838
2018	2948	-11.2903	-21.3728	456.7971	-8.35245	178.5154
		ΣRi= 50.41245		Σ(Ri- $\bar{R}$i)² 1107.254		Σ(Ri-$\bar{R}$i)(Rm-$\bar{R}$m) 937.5026

$$\bar{R}i = \Sigma \frac{Ri}{N} = 10.082$$

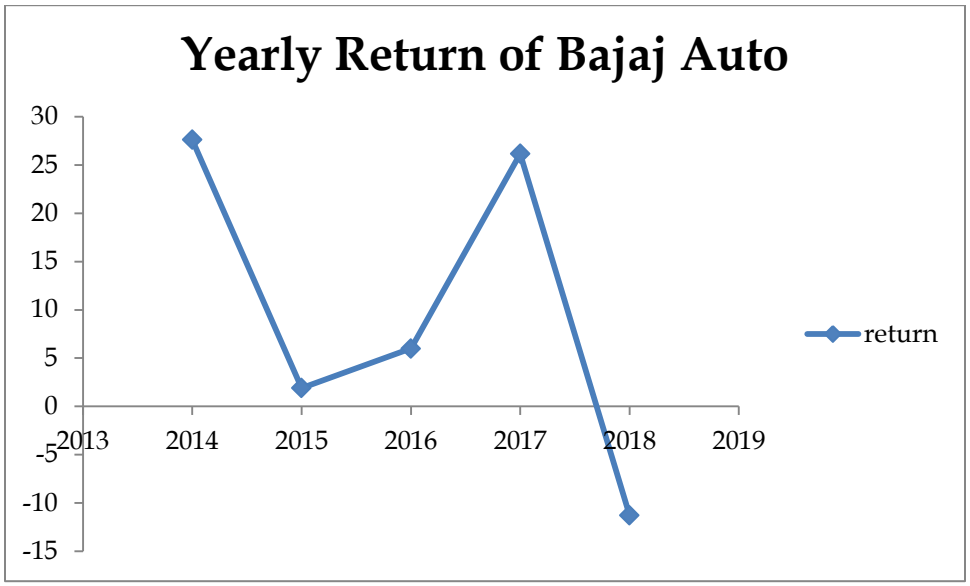
$$\sigma i = \frac{\sqrt{(Ri-Ri)^2}}{N}$$

$$= 14.88$$

$$\boldsymbol{\beta} i = \frac{\Sigma\,(Ri - Ri)\,\Sigma(Rm-Rm)}{(Rm-\bar{R}m)^2}$$

$$= 0.9014$$

Graph no 4: Graph Showing Yearly Return of Bajaj Auto.



Interpretation:

From the above table we can see that the return of the stock of Bajaj auto is 10.082 and Risk is 14.88. Beta of the stock is 0.90 since, the beta is lesser than 1 it is less riskier. Hence it is suggested that the stock is associated with low return and low risk and it suitable for small investors or new traders. From the above chart we can find the fluctuations of yearly return. in 2014 the return is at 27.63 and in 2015 the return is 1.90 showing a downtrend in the return. in 2016 the return has been slightly increased to 5.99 and for the next year 2017 there is a high increase of 26.17 and the next year 2018 has showed a downfall of the return to -11.29 which has shown negative return.

Table 8: Table showing risk and return calculation of Bharti Airtel Ltd.

Year	Closing Price	Ri	(Ri- $\bar{R}$i)	(Ri - $\bar{R}$I)²	(Rm - $\bar{R}$m)	(Ri- $\bar{R}$i)(Rm - $\bar{R}$m)
2013	330.45					
2014	352.85	6.778635	-1.95193	3.810043	18.30118	-35.7227
2015	338.4	-4.09522	-12.8258	164.501	-16.6178	213.1369
2016	305.35	-9.76655	-18.4971	342.1433	-9.64414	178.3887
2017	529.4	73.37482	64.64425	4178.879	16.31325	1054.558
2018	409.55	-22.6388	-31.3694	984.0396	-8.35245	262.0115
		ΣRi=43.65284		Σ(Ri- $\bar{R}$i)² =5673.373		Σ(Ri-$\bar{R}$i)(Rm-$\bar{R}$m) =1672.372

$\bar{R}i = \Sigma \frac{Ri}{N} = 8.730$

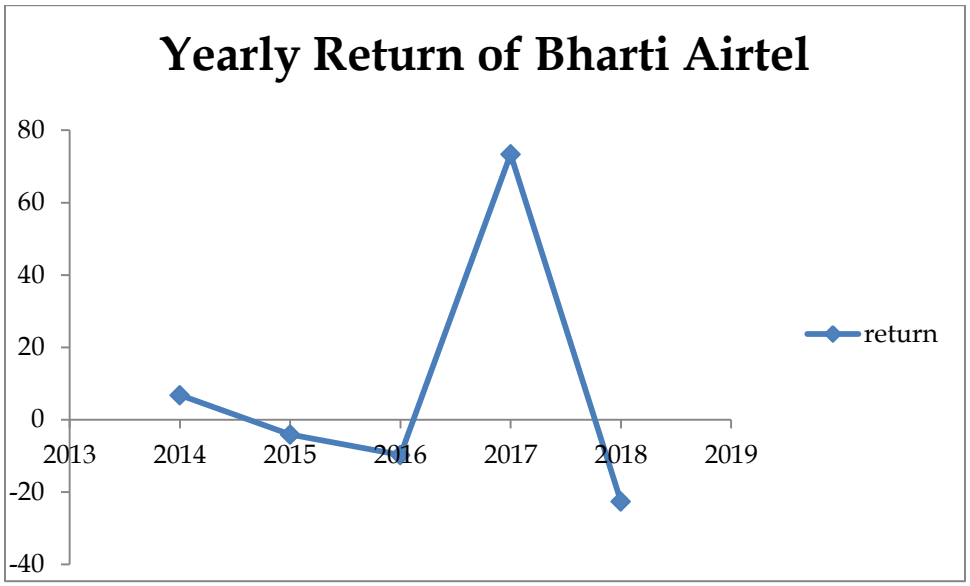
$\sigma i = \frac{\sqrt{(Ri-\bar{R}i)^2}}{N}$

= 33.68

$\boldsymbol{\beta} i = \frac{\Sigma (Ri - \bar{R}i)\, \Sigma(Rm-\bar{R}m)}{(Rm-\bar{R}m)^2}$

= 1.608

Graph no 5: Graph Showing Yearly Return of Bharti Airtel



Interpretation:

From the above table we can see that the return of the stock of Bharti Airtel is 8.73 and Risk is 33.68. Beta of the stock is 1.608 since, the beta is more than 1 it is more riskier. Hence it is suggested that the stock is associated with less return and more of risk and it not suitable for investment. From the above chart we can find the fluctuations of yearly return. in the year 2014 it has seen that the return is 6.77 and for the next year it has shown a downtrend of -4.09. at 2016 the return has still gone downwards to -9.7 but at 2017 there is a drastic change in the return it has jumped to 73.3 and showing a huge progress. And again in the 2018 there is a huge fallback at -22.6.

Table 9: Table showing risk and return calculation of Coal India Ltd.

Year	Closing Price	Ri	(Ri - $\bar{R}$i)	(Ri - $\bar{R}$i)²	(Rm - $\bar{R}$m)	(Ri -$\bar{R}$i) (Rm - $\bar{R}$m)
2013	290					
2014	383.75	32.32759	32.29469	1042.947	18.30118	591.0309
2015	322.4	-15.987	-16.0199	256.6363	-16.6178	266.215
2016	300	-6.94789	-6.98079	48.73144	-9.64414	67.32372
2017	263	-12.3333	-12.3662	152.9237	16.31325	-201.733
2018	266.4	1.292776	1.259876	1.587287	-8.35245	-10.523
		ΣRi= -1.64783		Σ(Ri-$\bar{R}$i)² 1502.826		Σ(Ri-$\bar{R}$i)(Rm-$\bar{R}$m) 712.3132

$\bar{R}i = \Sigma \frac{Ri}{N} = 0.032$

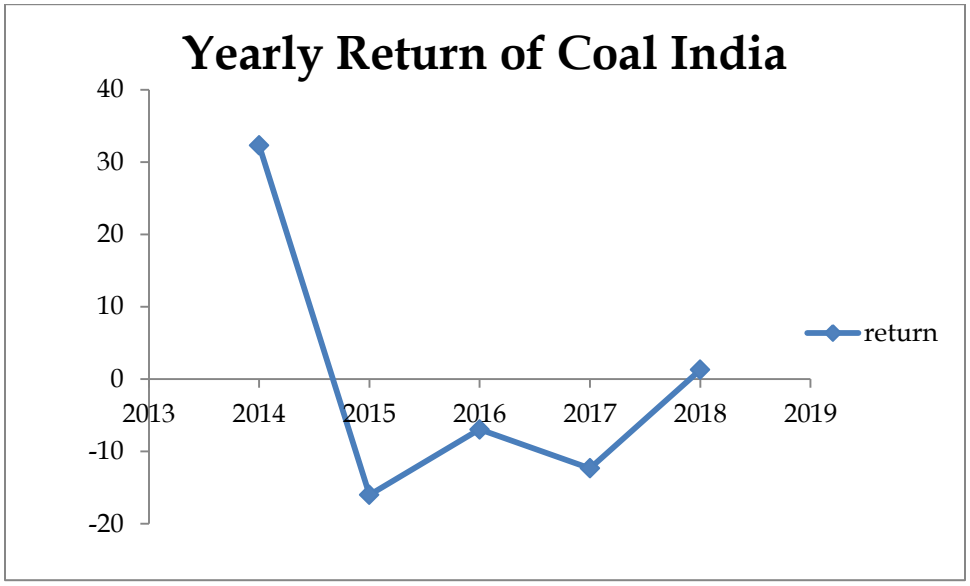
$\sigma i = \frac{\sqrt{(Ri-\bar{R}i)^2}}{N}$

= 17.33

$\boldsymbol{\beta} i = \frac{\Sigma (Ri - \bar{R}i)\, \Sigma(Rm - \bar{R}m)}{(Rm-\bar{R}m)^2}$

= 0.684

Graph no 10: Graph Showing Yearly Return of Coal India.



Interpretation:

From the above table we can see that the return of the stock of Coal India is 0.032 and Risk is 17.33. Beta of the stock is 0.684 since, the beta is less than 1 it is less and moderate risk. Hence it is suggested that the stock is associated with very less return and moderate risk and it is not suitable for investment. From the above chart we can find the fluctuations of yearly return. in 2014 there is a good return found. It shoes there is 32.32 return rate. In 2015 there is a fall of return to -15.98 which shows a negative return. in 2016 the return has climbed a little bit to -6.9 but still in negative returns. In 2017 the return has still went down to -12.3. in 2018 the return has come up to 1.2 but the returns are not stable enough to invest.

Table 10: Table showing risk and return calculation of Hero Moto Corp

Year	Closing price	Ri	$(Ri - \bar{R}i)^2$	$(Ri - \bar{R}i)^2$	$(Rm - \bar{R}m)$	$(Ri - \bar{R}i)(Rm - \bar{R}m)$
2013	2074.8					
2014	3103.4	49.57586	35.49818	1260.121	18.30118	649.6585
2015	2689.7	-13.3305	-27.4082	751.2107	-16.6178	455.4654
2016	3044.75	13.20036	-0.87733	0.769701	-9.64414	8.461052
2017	3786.3	24.35504	10.27735	105.624	16.31325	167.657
2018	3657.1	-3.4123	-17.49	305.8996	-8.35245	146.0843
		ΣRi=70.38841		Σ(Ri- $\bar{R}i)^2$ 2423.625		Σ(Ri-$\bar{R}i$)(Rm-$\bar{R}m$) 1427.326

$\bar{R}i = \Sigma \frac{Ri}{N} = 14.077$

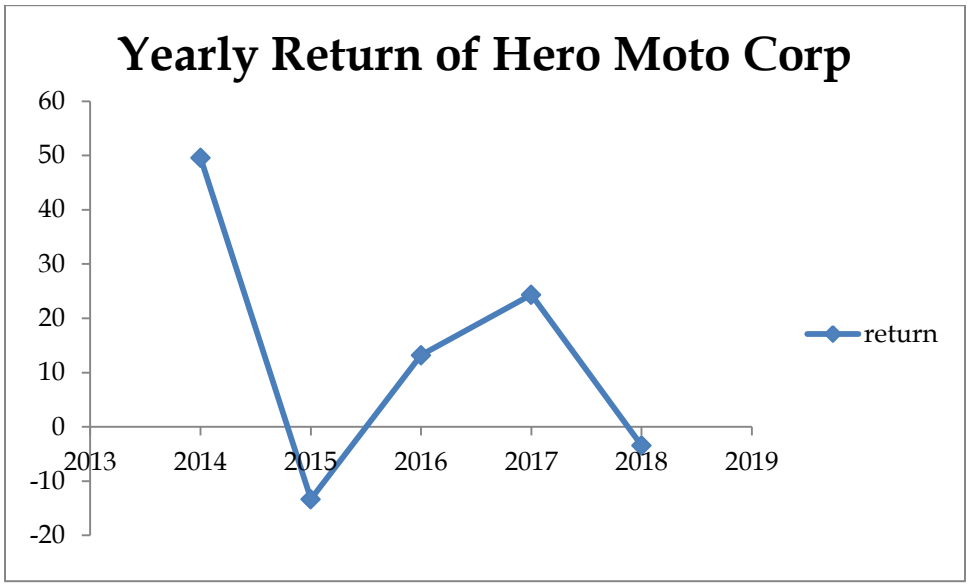
$\sigma i = \frac{\sqrt{(Ri - Ri)^2}}{N}$

$= 22.01$

$\boldsymbol{\beta} i = \frac{\Sigma (Ri - Ri)\, \Sigma(Rm - Rm)}{(Rm - \bar{R}m)^2}$

$= 1.372$

Graph no 7: Graph Showing Yearly Return of Hero Moto Corp



Interpretation:

From the above table we can see that the return of the stock of Hero Moto Corp is 14.077 and Risk is 21.01. Beta of the stock is 1.372 since, the beta is greater than 1 it is more riskier. Hence it is suggested that the stock is associated with low return and high risk and it is not suitable for investment. From the above chart we can find the fluctuations of yearly return. At 2014 the returns are at 49.5 which is a very good indicator of growth. In 2015 the return has taken downward trend to -13.33 and for the next year 2016 the return has raised to 13.2. For 2017 the return has still come up to 24.3 and at 2018 the return has gone down to -3.4. the returns are having too much of fluctuations and not suitable investment.

Table 11: Table showing risk and return calculation of Housing Development Finance Corporation Ltd.

Year	Closing Price	Ri	(Ri - $\bar{R}$i)	(Ri - $\bar{R}$i)²	(Rm - $\bar{R}$m)	(Ri -$\bar{R}$i) (Rm - $\bar{R}$m)
2013	796.3					
2014	1135	42.53422	23.01211	529.5573	18.30118	421.1488
2015	1229.95	8.365639	-11.1565	124.4668	-16.6178	185.396
2016	1262.45	2.642384	-16.8797	284.9251	-9.64414	162.7904
2017	1710.4	35.48259	15.96048	254.737	16.31325	260.3674
2018	1857.25	8.585711	-10.9364	119.6048	-8.35245	91.34572
		ΣRi= 97.61		Σ(Ri-$\bar{R}$i)² 1313.291		Σ(Ri-$\bar{R}$i)(Rm-$\bar{R}$m) 1121.048

$\bar{R}i = \Sigma \frac{Ri}{N} = 19.522$

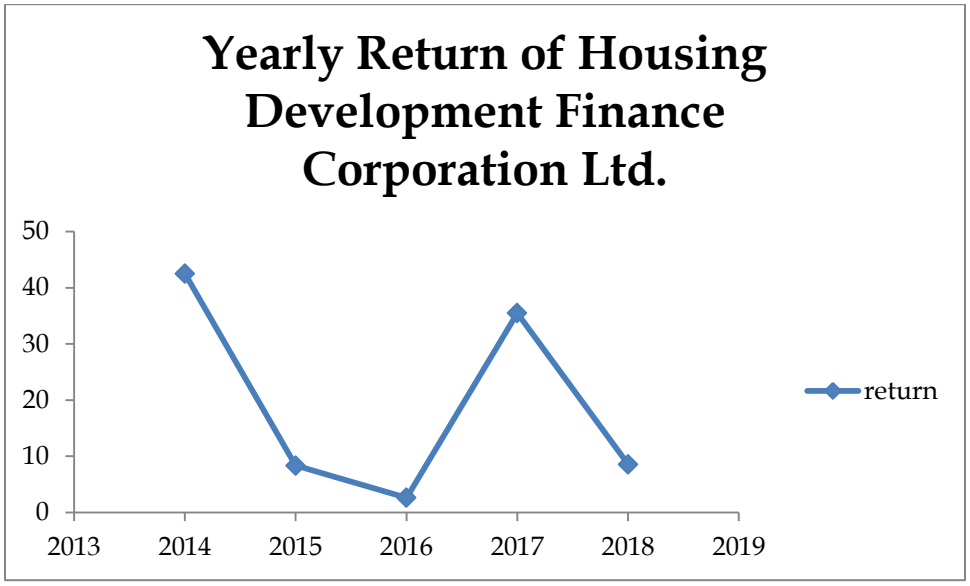
$\sigma i = \frac{\sqrt{(Ri-\bar{R}i)^2}}{N}$

$= 16.206$

$\beta i = \frac{\Sigma (Ri - \bar{R}i)\, \Sigma(Rm - \bar{R}m)}{(Rm-\bar{R}m)^2}$

$=1.077$

Graph no 8: Graph Showing Yearly Return of Housing Development Finance Corporation.



Interpretation:

From the above table we can see that the return of the stock of Housing Development Finance Corporation is 19.522 and Risk is 16.27. Beta of the stock is 1.077 since, the beta is greater than 1 it is more riskier. Hence it is suggested that the stock is associated with moderate return and moderate risk and it is suitable for investors who can bear less risk and satisfied with moderate return. From the above chart we can find the fluctuations of yearly return. In 2014 the return is at 42.5 and in 2015 the return is 8.3 showing a downtrend in the return. in 2016 the return is still in the downtrend of 2.6 and for the next year 2017 there is a high increase of 35.4 and the next year 2018 has showed a downfall of the return to 8.5 but it is at the positive return.

Table 12: Table showing risk and return calculation of Hindustan Unilever Ltd.

Year	Closing Price	Ri	(Ri - $\bar{R}$i)	(Ri - $\bar{R}$i)²	(Rm - $\bar{R}$m)	(Ri -$\bar{R}$i) (Rm - $\bar{R}$m)
2013	570.95					
2014	759.5	33.02391	7.979211	63.66781	18.30118	146.029
2015	863.25	13.6603	-11.3844	129.6044	-16.6178	189.1836
2016	826.3	-4.28034	-29.325	859.9575	-9.64414	282.8147
2017	1368.1	65.56941	40.52471	1642.252	16.31325	661.0897
2018	1604.1	17.2502	-7.7945	60.75416	-8.35245	65.10313
		ΣRi= 125.22		Σ(Ri-$\bar{R}$i)² 2756.236		Σ(Ri-$\bar{R}$i)(Rm-$\bar{R}$m) 1344.22

$\bar{R}i = \Sigma \frac{Ri}{N} = 25.044$

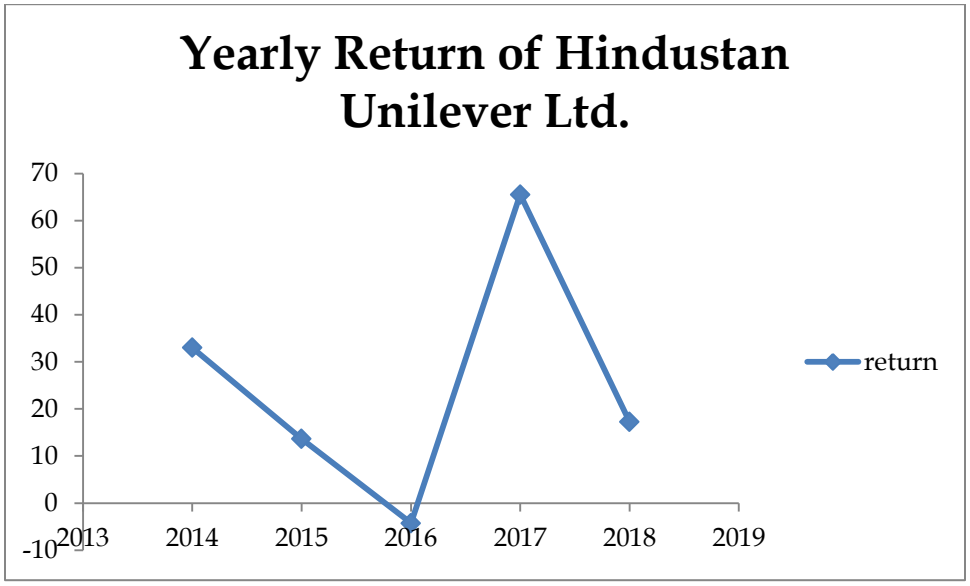
$\sigma i = \frac{\sqrt{(Ri-Ri)^2}}{N}$

$= 23.478$

$\boldsymbol{\beta} i = \frac{\Sigma (Ri - Ri)\, \Sigma(Rm-Rm)}{(Rm-\bar{R}m)^2}$

$= 1.292$

Graph no 9: Graph Showing Yearly Return of Hindustan Unilever Ltd.



Interpretation:

From the above table we can see that the return of the stock of Hindustan Unilever is 25.044 and Risk is 23.478. Beta of the stock is 1.292 since, the beta is greater than 1 it is more riskier. Hence it is suggested that the stock is associated with bearable return and bearable risk and it is suitable for investment in long term. From the above chart we can find the fluctuations of yearly return. In 2014 the return is at 33.02 and in 2015 the return is 13.6 showing a downtrend in the return. in 2016 the return is showing a downtrend of -4.2 and for the next year 2017 there is a high increase of 65.5 and the next year 2018 has showed a downfall of the return to 17.5 but it is at the positive return.

Table 13: Table showing risk and return calculation of Induslnd Bank Ltd.

Year	Closing Price	Ri	(Ri - $\bar{R}$i)	(Ri - $\bar{R}$i)²	(Rm - $\bar{R}$m)	(Ri -$\bar{R}$I) (Rm - $\bar{R}$m)
2013	420.1					
2014	802.55	91.03785	52.69506	2776.77	18.30118	964.3818
2015	946	17.87428	-20.4685	418.9599	-16.6178	340.1416
2016	1107.45	17.0666	-21.2762	452.6762	-9.64414	205.1906
2017	1650.25	49.0135	10.67071	113.8641	16.31325	174.074
2018	1926.2	16.72171	-21.6211	467.471	-8.35245	180.589
		ΣRi 191.7139		Σ(Ri-$\bar{R}$i)² 4229.741		Σ(Ri-$\bar{R}$i)(Rm-$\bar{R}$m) 1864.377

$\bar{R}i = \Sigma \frac{Ri}{N} = 38.342$

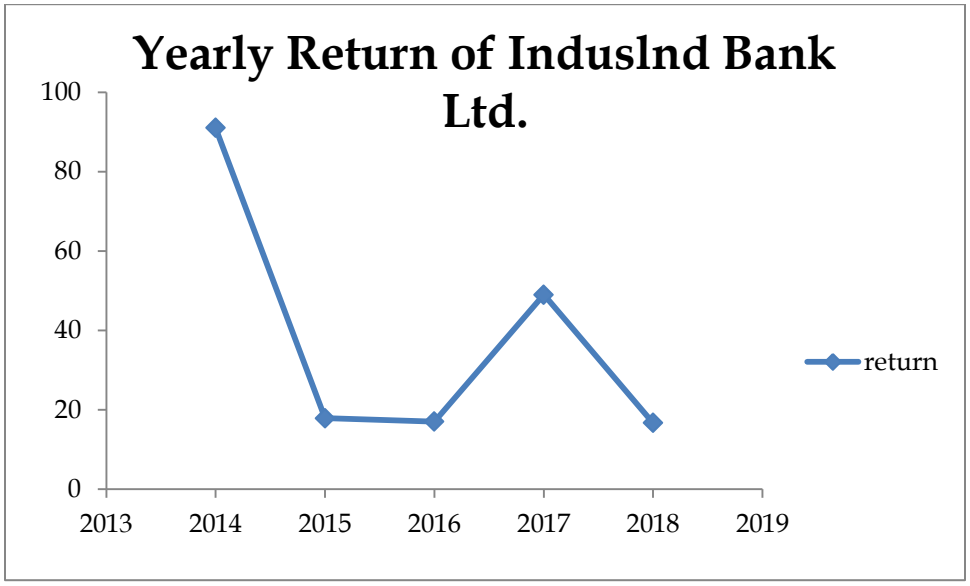
$\sigma i = \frac{\sqrt{(Ri-\bar{R}i)^2}}{N}$

= 29.085

$\boldsymbol{\beta} i = \frac{\Sigma (Ri - \bar{R}i)\, \Sigma(Rm-\bar{R}m)}{(Rm-\bar{R}m)^2}$

= 1.792

Graph no 10: Graph Showing Yearly Return of Induslnd Bank Ltd.



Interpretation:

From the above table we can see that the return of the stock of Induslnd Bank is 38.34 and Risk is 29.08. Beta of the stock is 1.79 since, the beta is greater than 1 it is more riskier. Hence it is suggested that the stock is associated with more return and less risk. It is the best stock available for investment as of now. From the above chart we can find the fluctuations of yearly return. In 2014 there is a huge return 91.03 and in 2015 the return is 17.8 showing a downtrend in the return. In 2016 the return is constant as the last year with slight changes, and for the next year 2017 there is a high increase of 49.01 and the next year 2018 has showed a downfall of the return to 16.72 but it is at the positive return.

Table 14: Table showing risk and return calculation of Infosys Ltd.

Year	Closing Price	Ri	$(Ri - \bar{R}i)^2$	$(Ri - \bar{R}i)^2$	$(Rm - \bar{R}m)$	$(Ri - \bar{R}i)(Rm - \bar{R}m)$
2013	3485.5					
2014	1971.2	-43.4457	-27.968	782.2085	18.30118	-511.847
2015	1095.85	-44.407	-28.9292	836.9013	-16.6178	480.7415
2016	1010.7	-7.77022	7.707489	59.40539	-9.64414	-74.3321
2017	1039.3	2.829722	18.30744	335.1622	16.31325	298.6538
2018	1199.4	15.4046	30.88231	953.7172	-8.35245	-257.943
		ΣRi=-77.3886		$\Sigma(Ri- \bar{R}i)^2$ 2967.395		$\Sigma(Ri-\bar{R}i)(Rm-\bar{R}m)$ -64.727

$\bar{R}i = \Sigma \frac{Ri}{N} =$ -15.477

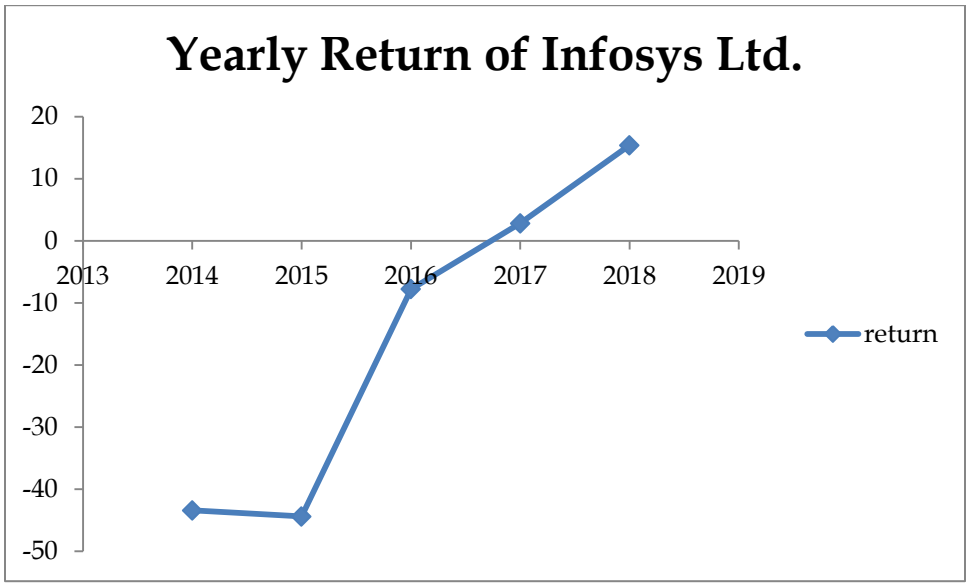
$\sigma i = \frac{\sqrt{(Ri-Ri)^2}}{N}$

= 24.36

$\boldsymbol{\beta} i = \frac{\Sigma (Ri- Ri)\, \Sigma(Rm-Rm)}{(Rm-\bar{R}m)^2}$

= -0.062

Graph no 11: Graph Showing Yearly Return of Infosys Ltd.



Interpretation:

From the above table we can see that the return of the stock of Infosys is -15.477 and Risk is 24.36. Beta of the stock is -0.062 since, the beta is less than 1 it is less riskier. Hence it is suggested that the stock is associated with less return and more risk. It is not at all suggested for investment. From the above chart we can find the fluctuations of yearly return. In 2014 return is at -43.44 and in 2015 the return is -44.40 showing a constant return as the last year. In 2016 the return is slightly recovered to -7.77 but still showing negative return and for the next year 2017 there is a slight increase to 2.82 and the next year 2018 has showed a increase to 15.4. The return is constantly in negatives hence it is not suggestable.

Table 15: Table showing Risk and return of calculation ITC Ltd.

Year	Closing Price	Ri	(Ri - $\bar{R}$i)	(Ri - $\bar{R}$i)²	(Rm - $\bar{R}$m)	(Ri -$\bar{R}$i) (Rm - $\bar{R}$m)
2013	321.6					
2014	368.4	14.55224	15.8987	252.7686	18.30118	290.9649516
2015	323.2	-12.2693	-10.9228	119.3078	-16.6178	181.5131113
2016	240.95	-25.4486	-24.1022	580.915	-9.64414	232.4447833
2017	263.1	9.192779	10.53924	111.0756	16.31325	171.9292365
2018	282.15	7.240593	8.587053	73.73748	-8.35245	-71.72293162
		ΣRi= -6.7323		Σ(Ri-$\bar{R}$i)² 1137.804		Σ(Ri-$\bar{R}$i)(Rm-$\bar{R}$m) 805.1291511

$\bar{R}i = \Sigma \frac{Ri}{N} = -1.346$

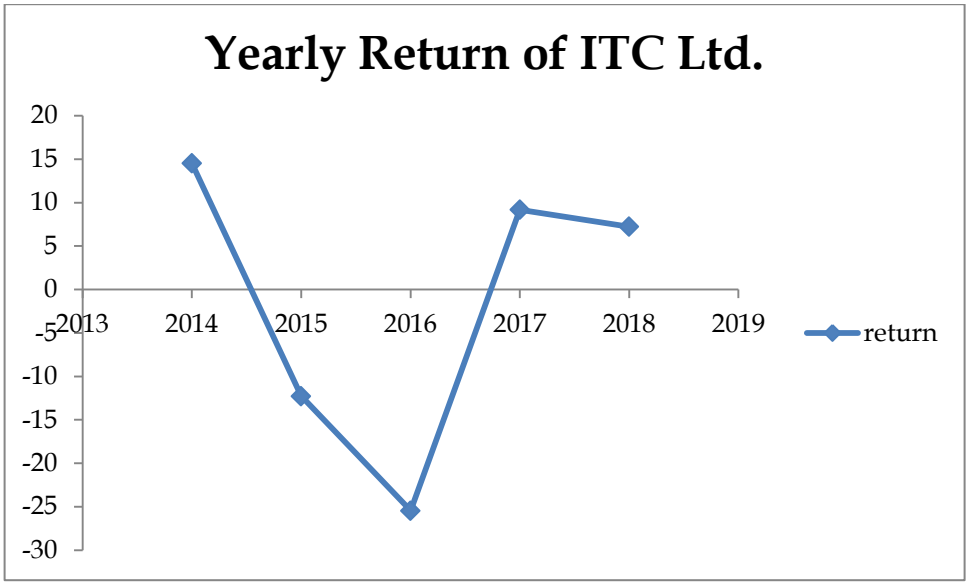
$\sigma i = \frac{\sqrt{(Ri-\bar{R}i)^2}}{N}$

= 15.085

$\boldsymbol{\beta} i = \frac{\Sigma (Ri - \bar{R}i)\, \Sigma(Rm-\bar{R}m)}{(Rm-\bar{R}m)^2}$

= 0.7741

Graph no 12: Graph Showing Yearly Return of ITC Ltd.



Interpretation:

From the above table we can see that the return of the stock of ITC ltd is -1.34 and Risk is 15.085. Beta of the stock is 0.77 since, the beta is less than 1 it is less riskier. Hence it is suggested that the stock is associated with less return and more risk. It is the not at all suggested for investment. From the above chart we can find the fluctuations of yearly return.

In 2014 return is at 14.5 and in 2015 the return is -12.2 showing a downtrend. In 2016 the return has still showing a downtrend -25.44 and for the next year 2017 there is a increase in the return to 9.19 and the next year 2018 has slightly decrease to 7.2. this stock is not that suggestible for investment.

Table 16: Table showing Risk and return calculation of Kotak Mahindra Bank Ltd.

Year	Closing Price	Ri	(Ri - $\bar{R}$i)	(Ri - $\bar{R}$i)²	(Rm - $\bar{R}$m)	(Ri -$\bar{R}$i) (Rm - $\bar{R}$m)
2013	729.05					
2014	1263.15	73.25972	53.27373	2838.09	18.30118	974.9721
2015	700.95	-44.5078	-64.4938	4159.446	-16.6178	1071.745
2016	719.05	2.58221	-17.4038	302.8916	-9.64414	167.8445
2017	1009.1	40.33795	20.35196	414.2021	16.31325	332.0065
2018	1294.25	28.25785	8.271863	68.42372	-8.35245	-69.0903
		ΣRi=99.929		Σ(Ri-$\bar{R}$i)² 7783.054		Σ(Ri-$\bar{R}$i)(Rm-$\bar{R}$m) 2477.477

$\bar{R}i = \Sigma \frac{Ri}{N} = 19.985$

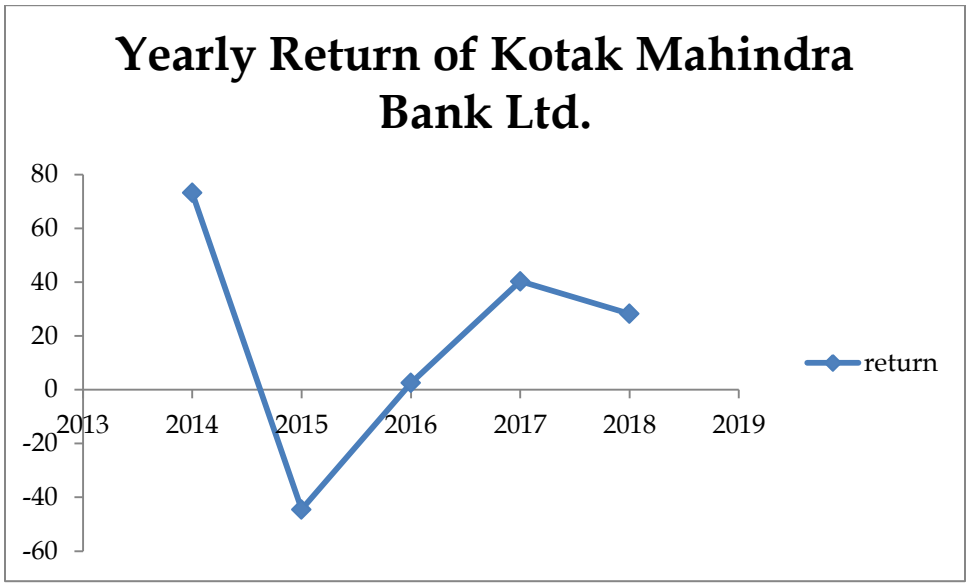
$\sigma i = \frac{\sqrt{(Ri-Ri)^2}}{N}$

= 39.453

$\boldsymbol{\beta} i = \frac{\Sigma\,(Ri - Ri)\;\Sigma(Rm-Rm)}{(Rm-\bar{R}m)^2}$

= 2.382

Graph no 13: Graph Showing Yearly Return of Kotak Mahindra Bank Ltd.



Interpretation:

From the above table we can see that the return of the stock of Kotak Mahindra Bank is 19.98 and Risk is 39.45. Beta of the stock is 2.38 since, the beta is greater than 1 it is more riskier. Hence it is suggested that the stock is associated with less return and more risk. Investors who can bear more risk with moderate return can invest in this stock. From the above chart we can find the fluctuations of yearly return. In 2014 return is at 73.2 which is very good indicator of growth and in 2015 the return is -44.5 showing a huge downtrend. In 2016 the return has slightly increased to 2.5 and for the next year 2017 there is a increase in the return to 40.3 and the next year 2018 has slightly decrease to 28.2 moderate for investment.

Table 17: Table showing risk and return calculation of Larsen and Toubro Ltd.

Year	Closing Price	Ri	(Ri - $\bar{R}$i)	(Ri - $\bar{R}$i)²	(Rm - $\bar{R}$m)	(Ri -$\bar{R}$i) (Rm - $\bar{R}$m)
2013	1069.9					
2014	1496.5	39.87289	34.1796	1168.245	18.30118	625.5271
2015	1294.5	-13.4982	-19.1914	368.3115	-16.6178	318.9196
2016	1349.4	4.24102	-1.45226	2.109064	-9.64414	14.00582
2017	1256.95	-6.85119	-12.5445	157.3638	16.31325	-204.641
2018	1316.05	4.701858	-10.3951	108.0589	-8.35245	86.82488
		ΣRi 28.466		Σ(Ri-$\bar{R}$i)² 1804.089		Σ(Ri-$\bar{R}$i)(Rm-$\bar{R}$m) 840.6362

$\bar{R}i = \Sigma \frac{Ri}{N} = 5.693$

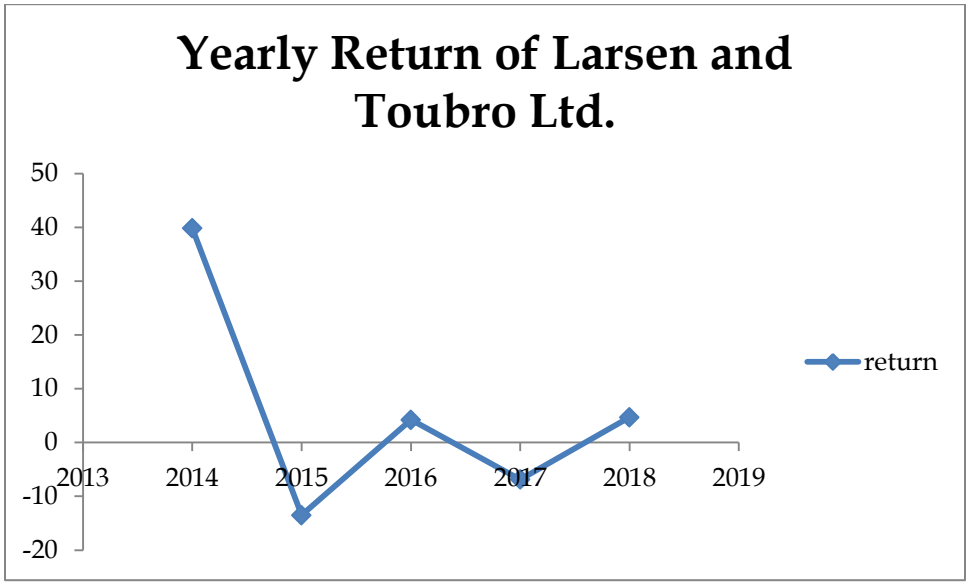
$\sigma i = \frac{\sqrt{(Ri-\bar{R}i)^2}}{N}$

= 18.99

$\boldsymbol{\beta} i = \frac{\Sigma (Ri - \bar{R}i)\, \Sigma(Rm - \bar{R}m)}{(Rm-\bar{R}m)^2}$

= 0.8083

Graph no 14: Graph Showing Yearly Return of Larsen and Toubro Ltd.



Interpretation

From the above table we can see that the return of the stock of Larsen and Toubro is 5.69 and Risk is 18.99. Beta of the stock is 0.80 since, the beta is less than 1 it is less riskier. Hence it is suggested that the stock is associated with less return and more risk. It is the not at all suggested for investment. From the above chart we can find the fluctuations of yearly return. In 2014 return is at 39.8 which is very good indicator of growth and in 2015 the return is -13.4 showing a downtrend. In 2016 the return has slightly increased to 4.2 and for the next year 2017 there is a decrease in the return to -6.8 and the next year 2018 has slightly increased to 4.7. This stock yields less return.

Table 18: Table showing risk and return calculation of Mahindra and Mahindra Ltd.

Year	Closing Price	Ri	(Ri - $\bar{R}$i)	(Ri - $\bar{R}$i)²	(Rm - $\bar{R}$m)	(Ri -$\bar{R}$i) (Rm - $\bar{R}$m)
2013	943.5					
2014	1234.5	30.84261	30.56299	934.0961	18.30118	559.3387
2015	1257.7	1.879303	1.599683	2.558985	-16.6178	-26.5832
2016	1184.45	-5.82412	-6.10374	37.25569	-9.64414	58.86536
2017	751.05	-36.5908	-36.8704	1359.43	16.31325	-601.477
2018	834.35	11.09114	10.81152	116.8889	-8.35245	-90.3027
		ΣRi 1.398104		Σ(Ri-$\bar{R}$i)² 2450.229		Σ(Ri-$\bar{R}$i)(Rm-$\bar{R}$m) -100.159

$\bar{R}i = \Sigma \frac{Ri}{N} = 0.279$

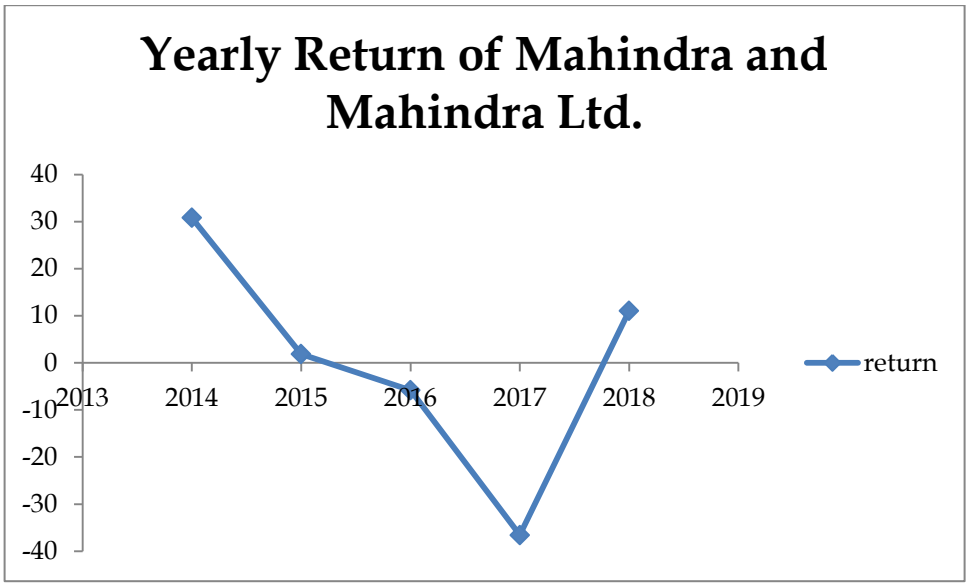
$\sigma i = \frac{\sqrt{(Ri-\bar{R}i)^2}}{N}$

= 22.13

$\boldsymbol{\beta} i = \frac{\Sigma (Ri - \bar{R}i)\, \Sigma(Rm - \bar{R}m)}{(Rm-\bar{R}m)^2}$

= -0.0963

Graph no 15: Graph Showing Yearly Return of Mahindra and Mahindra Ltd.



Interpretation:

From the above table we can see that the return of the stock of Mahindra and Mahindra ltd is 0.27 and Risk is 22.13. Beta of the stock is -0.09 since, the beta is less than 1 it is less riskier. Hence it is suggested that the stock is associated with very less return and more risk. It is the not at all suggested for investment. From the above chart we can find the fluctuations of yearly return. In 2014 return is at 30.84 which is very good indicator of growth and in 2015 the return is 1.87 showing a downtrend. In 2016 the return has slightly decreased to -5.8 and for the next year 2017 there is a huge decrease in the return to -36.5 and the next year 2018 has slightly increased to 11.09.

Table 19: Table showing risk and return calculation of ONGC Ltd.

Year	Close Price	Ri	(Ri - $\bar{R}$i)	(Ri - $\bar{R}$i)²	(Rm - $\bar{R}$m)	(Ri -$\bar{R}$i) (Rm - $\bar{R}$m)
2013	288.6					
2014	341.2	18.22592	25.15272	632.6593	18.30118	6.85154
2015	233.95	-31.4332	-24.5064	600.5624	-16.6178	-7.88858
2016	191.45	-18.1663	-22.1458	490.4361	-9.64414	-12.5017
2017	194.65	1.671455	8.598256	73.93001	16.31325	-7.71499
2018	185.05	-4.93193	1.994873	3.979516	-8.35245	10.34732
		ΣRi -34.634		Σ(Ri-$\bar{R}$i)² 1801.567		Σ(Ri-$\bar{R}$i)(Rm-$\bar{R}$m) -10.9064

$\bar{R}i = \Sigma \frac{Ri}{N} = -6.92$

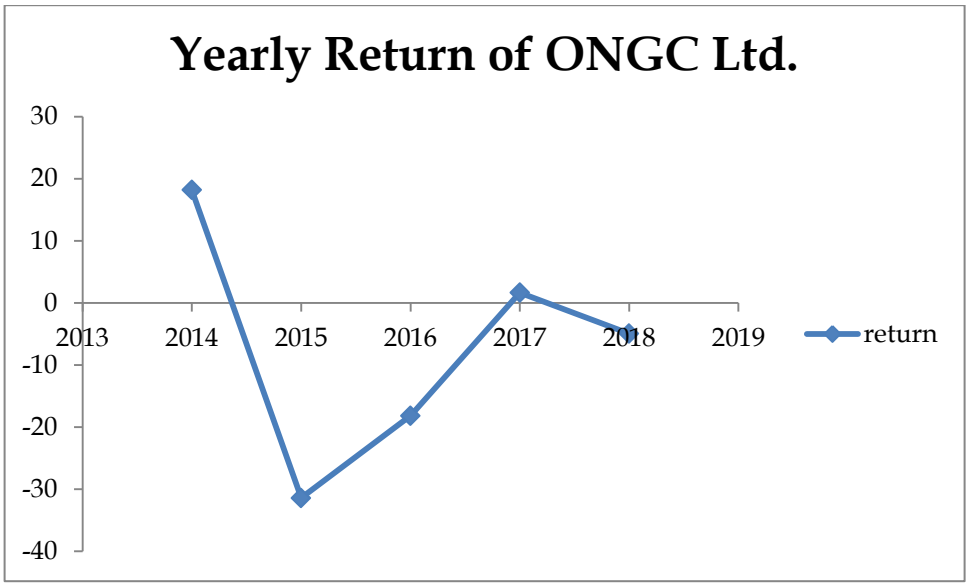
$\sigma i = \frac{\sqrt{(Ri-Ri)^2}}{N}$

= 18.981

$\boldsymbol{\beta} i = \frac{\Sigma\,(Ri - Ri)\,\Sigma(Rm-Rm)}{(Rm-\bar{R}m)^2}$

= -0.0104

Graph no 16: Graph Showing Yearly Return of Oil and Natural Gas Corp Ltd.



Interpretation:

From the above table we can see that the return of the stock of ONGC ltd is -6.92 and Risk is 18.98. Beta of the stock is -0.01 since, the beta is less than 0 it is very less riskier. Hence it is suggested that the stock is associated with very less return and more risk. It is the not suggested for investment. From the above chart we can find the fluctuations of yearly return. In 2014 return is at 18.2 and in 2015 the return has decreased to -31.4 showing a downtrend. In 2016 the return has slightly recovered to -18.16 and for the next year 2017 there is a still more recovery reaching the positive return to 1.67 and the next year 2018 has slightly decreased to -4.9. this stock not suggestible to invest.

Table 20: Table showing risk and return calculation of Reliance Industry Ltd.

Year	Closing Price	Ri	(Ri - $\bar{R}$i)	(Ri - $\bar{R}$i)²	(Rm - $\bar{R}$m)	(Ri - $\bar{R}$i) (Rm - $\bar{R}$m)
2013	894.8					
2014	891.15	-0.40791	-1.69509	2.873329	18.30118	-31.0221
2015	1000.9	12.31555	11.02837	121.6249	-16.6178	-183.267
2016	1080.1	7.912878	6.625701	43.89992	-9.64414	-63.8992
2017	921.05	-14.7255	-16.0127	256.4055	16.31325	-261.219
2018	933.4	1.340861	0.053684	0.002882	-8.35245	-0.44839
		ΣRi 6.435		Σ(Ri-$\bar{R}$i)² 424.8065		Σ(Ri-$\bar{R}$i)(Rm-$\bar{R}$m) -539.856

$\bar{R}i = \Sigma \frac{Ri}{N} = 1.287$

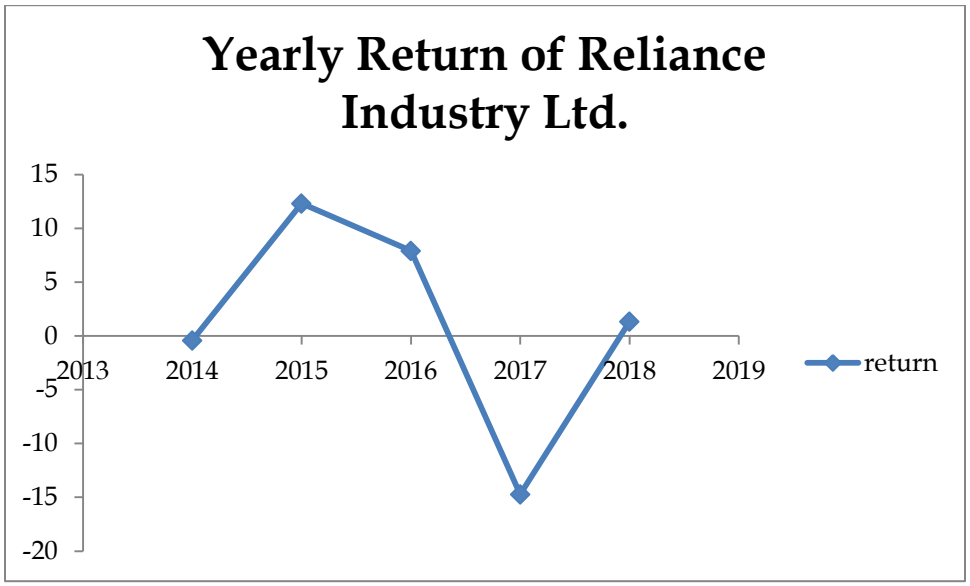
$\sigma i = \frac{\sqrt{(Ri-Ri)^2}}{N}$

= 9.217

$\boldsymbol{\beta} i = \frac{\Sigma\,(Ri - \bar{R}i)\,\Sigma(Rm-\bar{R}m)}{(Rm-\bar{R}m)^2}$

= 0.5191

Graph no 17: Graph Showing Yearly Return of Reliance Industry Ltd.



Interpretation:

From the above table we can see that the return of the stock of Reliance Industry ltd is 1.28 and Risk is 9.217. Beta of the stock is 0.519 since, the beta is less than 1 it is less riskier. Hence it is suggested that the stock is associated with very less return and moderate risk. It is the not suggested for investment. From the above chart we can find the fluctuations of yearly return. In 2014 return is at -0.40 which is a bad indicator of growth and in 2015 the return has been increased to 12.31 showing a uptrend. In 2016 the return has slightly decreased to 7.9 and for the next year 2017 there is a decrease in the return reaching a negative return to -14.72 and the next year 2018 has slightly decreased to 1.34. This stock not suggestible to invest.

Table 21: Table showing risk and return calculation of Tata Consultancy Service Ltd.

Year	Closing Price	Ri	$(Ri - \bar{R}i)^2$	$(Ri - \bar{R}i)^2$	$(Rm - \bar{R}m)$	$(Ri-\bar{R}i) (Rm-\bar{R}m)$
2013	2170.95					
2014	2554.7	17.67659	7.018695	49.26208	18.30118	128.4504
2015	2433.35	-4.75007	-15.408	237.4054	-16.6178	256.0471
2016	2361.95	-2.93423	-13.5921	184.7459	-9.64414	131.0843
2017	2700.4	14.32926	3.671364	13.47891	16.31325	59.89187
2018	3482.65	28.96793	18.31003	335.2573	-8.35245	-152.934
		$\Sigma Ri=53.28949$		$\Sigma(Ri- \bar{R}i)^2$ 820.1496		$\Sigma(Ri-\bar{R}i)(Rm-\bar{R}m)$ 422.54

$\bar{R}i = \Sigma \frac{Ri}{N} = 10.657$

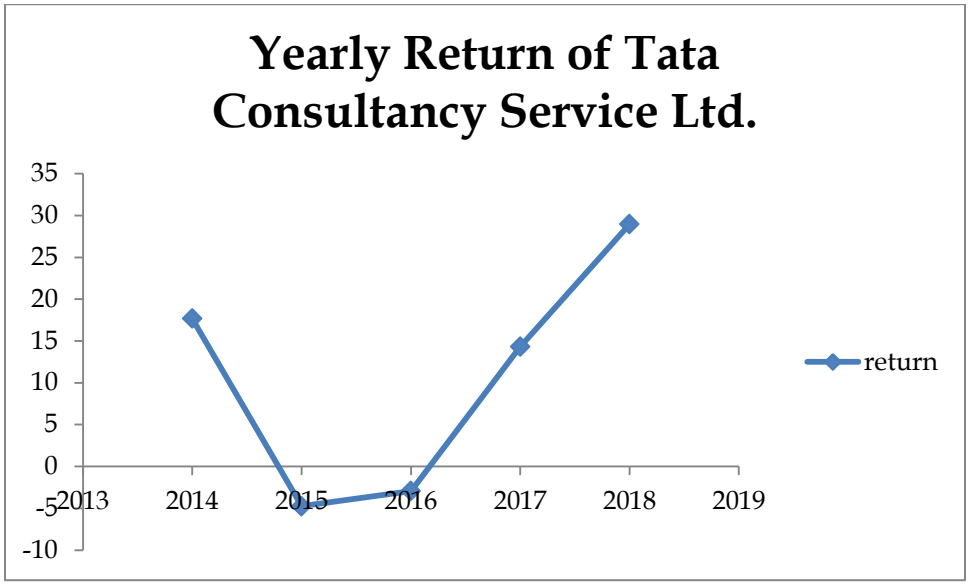
$\sigma i = \frac{\sqrt{(Ri-\bar{R}i)^2}}{N}$

$= 12.807$

$\boldsymbol{\beta} i = \frac{\Sigma (Ri- \bar{R}i)\, \Sigma(Rm-\bar{R}m)}{(Rm-\bar{R}m)^2}$

$= 0.406$

Graph no 18: Graph Showing Yearly Return of Tata Consultancy Services Ltd.



Interpretation:

From the above table we can see that the return of the stock of TATA Consultancy Services ltd is 10.65 and Risk is 12.80. Beta of the stock is 0.406 since, the beta is less than 1 it is less riskier. Hence it is suggested that the stock is associated with moderate return and moderate risk. It is good for short term investment and new traders. From the above chart we can find the fluctuations of yearly return. In 2014 return is at 17.67 which is a moderate indicator of growth and in 2015 the return has been decreased to -4.7 showing a downtrend. In 2016 the return has slightly decreased to -2.93 and for the next year 2017 there is a increase in the return to 14.32 and the next year 2018 has been increased to 28.96. from the past 2 years the stock is giving good returns hence it is good for investment.

Table 22: Table showing risk and return calculation of Wipro Ltd.

Year	Closing Price	Ri	(Ri- $\bar{R}$I)²	(Ri- $\bar{R}$I)²	(Rm- $\bar{R}$m)	(Ri-$\bar{R}$i) (Rm-$\bar{R}$m)
2013	559.05					
2014	553.8	-0.93909	11.65561	135.8532	18.30118	213.3114
2015	555.95	0.388227	12.98293	168.5565	-16.6178	-215.748
2016	474	-14.7405	-2.14583	4.604594	-9.64414	20.6947
2017	313.4	-33.8819	-21.2872	453.1429	16.31325	-347.263
2018	270.15	-13.8003	-1.20555	1.453358	-8.35245	10.06932
		ΣRi=-62.9735		Σ(Ri- $\bar{R}$i)² 763.6106		Σ(Ri-$\bar{R}$i)(Rm-$\bar{R}$m) -318.935

$\bar{R}i = \Sigma \frac{Ri}{N} =$ -12.594

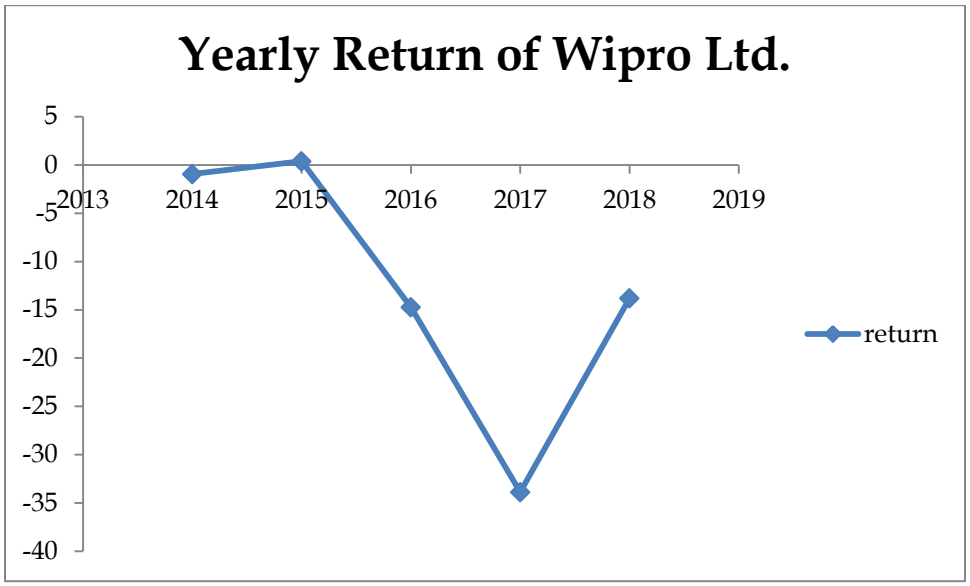
$\sigma i = \frac{\sqrt{(Ri-Ri)^2}}{N}$

= 12.35

$\boldsymbol{\beta} i = \frac{\Sigma (Ri - Ri)\, \Sigma(Rm-Rm)}{(Rm-\bar{R}m)^2}$

= -0.306

Graph no 19: Graph Showing Yearly Return of Wipro Ltd.



Interpretation:

From the above table we can see that the return of the stock of Wipro ltd is -12.59 and Risk is 12.35. Beta of the stock is -0.30 since, the beta is less than 0 it is less riskier. Hence it is suggested that the stock is associated with less return and moderate risk. It is not suggested for investment. From the above chart we can find the fluctuations of yearly return. In 2014 return is at -0.9 showing a negative trend and in 2015 the return has been very slightly increased to 0.3. In 2016 the return has been decreased to -14.74 and for the next year 2017 there is a still more decrease reaching the downtrend to -33.8 and the next year 2018 has slightly increased to -13.8 but still in the negative trend to. This stock not at suggestible to invest.

Table 23: Table showing risk and return calculation of Yes Bank Ltd.

Year	Closing Price	Ri	$(Ri - \bar{R}I)^2$	$(Ri- \bar{R}I)^2$	$(Rm- \bar{R}m)$	$(Ri - \bar{R}i) (Rm - \bar{R}m)$
2013	370.1					
2014	772.85	108.8219	88.48233	7829.122	18.30118	1619.331
2015	725.35	-6.14608	-26.4857	701.492	-16.6178	440.135
2016	1156.3	59.4127	39.07309	1526.706	-9.64414	-376.826
2017	315.05	-72.7536	-93.0932	8666.348	16.31325	-1518.65
2018	354	12.36312	-7.9765	63.62448	-8.35245	66.6233
		$\Sigma Ri= 101.6981$		$\Sigma(Ri-\bar{R}i)^2$ =18787.29		$\Sigma(Ri-\bar{R}i)(Rm-\bar{R}m)$ 230.6099

$\bar{R}i = \Sigma \frac{Ri}{N} = 20.33961$

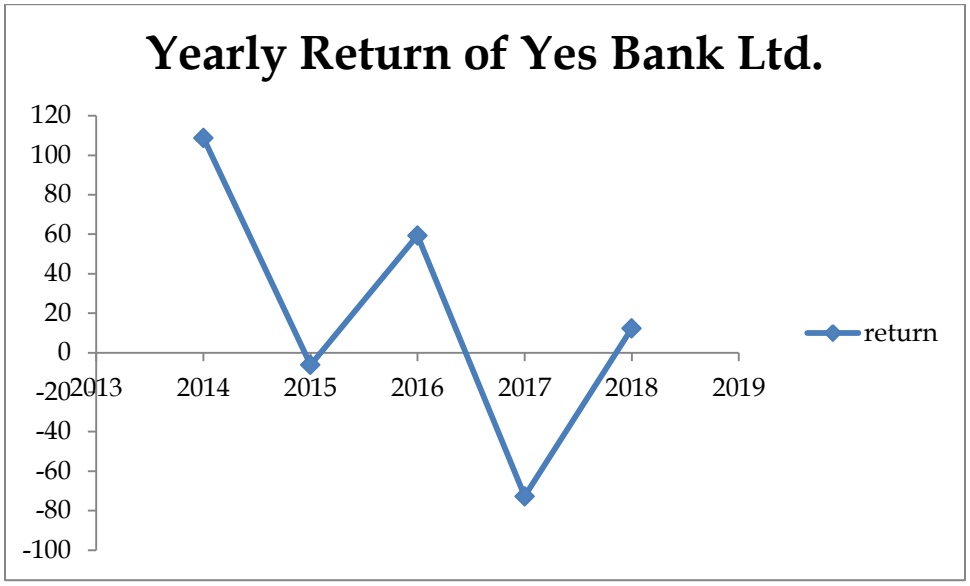
$\sigma i = \frac{\sqrt{(Ri-Ri)^2}}{N}$

$= 61.29$

$\boldsymbol{\beta} i = \frac{\Sigma (Ri- Ri)\, \Sigma(Rm-Rm)}{(Rm-\bar{R}m)^2}$

$= 0.221$

Graph no 20: Graph Showing Yearly Return of Yes Bank Ltd.



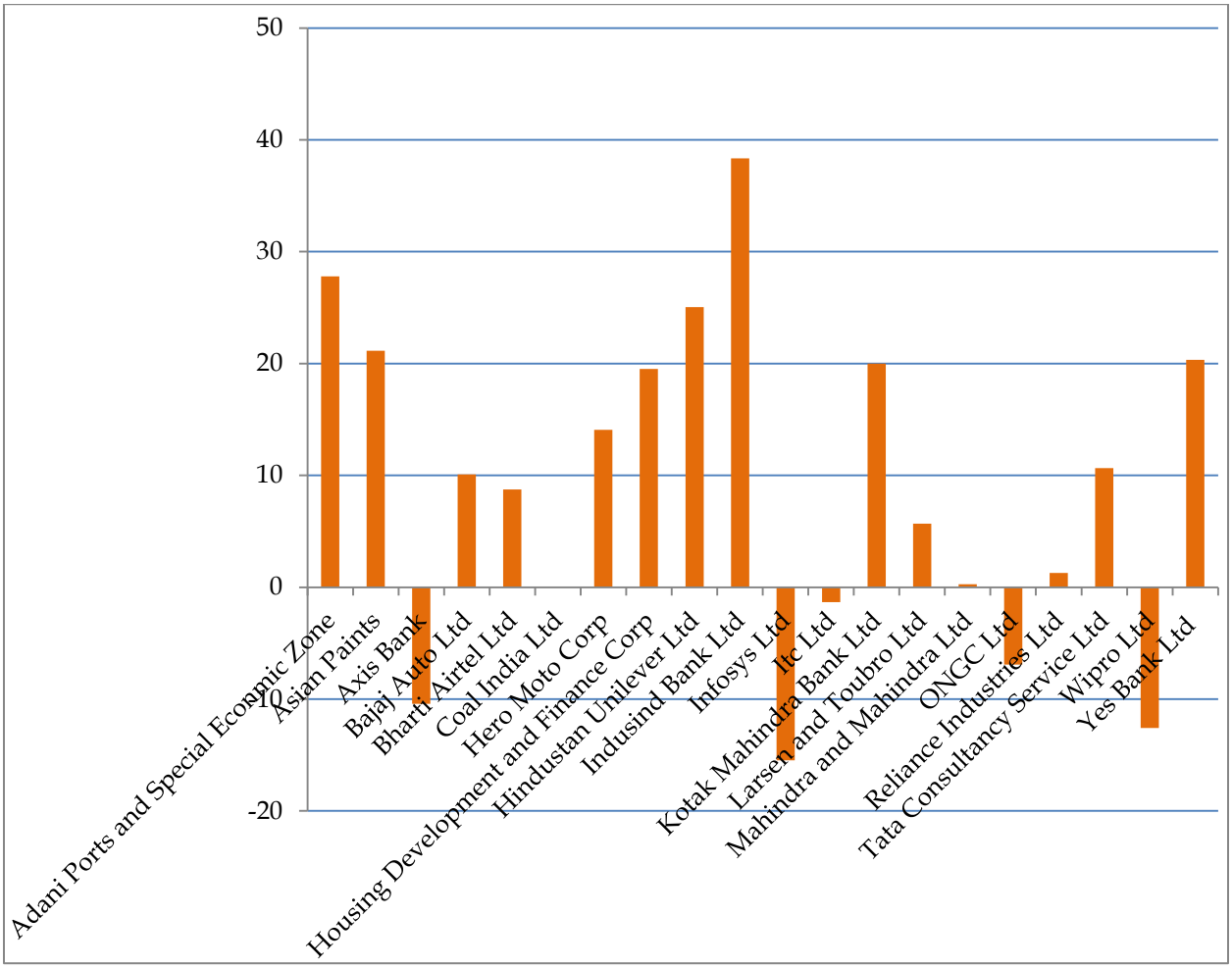
Interpretation:

From the above table we can see that the return of the stock of Yes Bank ltd is 20.33 and Risk is 61.29. Beta of the stock is 0.221 since, the beta is less than 1 it is less riskier. Hence it is suggested that the stock is associated with moderate return and huge risk. It is not suggested for new traders but investment with high investment capacity can try to pool money for shorter time. From the above chart we can find the fluctuations of yearly return. In 2014 the return of the stock is 108.8 which is the extreme level of growth. In 2015 there is a drastic change in the return which has collapsed to -6.14 showing a deep downtrend and in the next year 2016 the return has jumped to 59.41 which has boomed again. In 2016 the return has again collapsed to -72.75 and in 2018 return has recovered to 12.3. This stock is heavily fluctuating and not good for new traders.

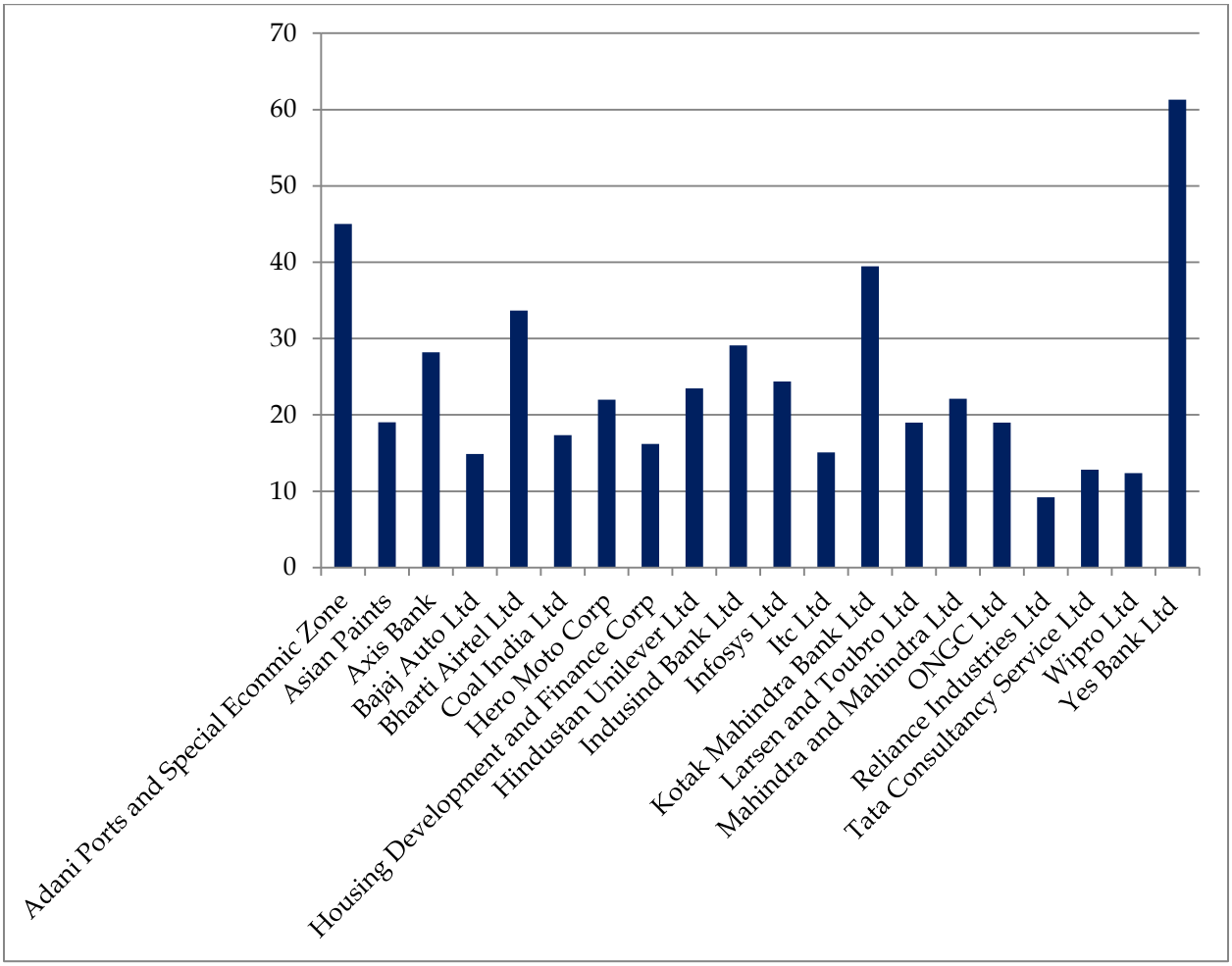
Table 24: Table showing Security Review of Companies

Sl.no	Company	Return	Risk
1	Adani Ports and Special Econmic Zone Ltd.	27.78	45.03
2	Asian Paints Ltd.	21.1339	19.01
3	Axis Bank Ltd.	-10.422	28.21
4	Bajaj Auto Ltd.	10.0825	14.88
5	Bharti Airtel Ltd.	8.73057	33.68
6	Coal India Ltd.	0.032	17.33
7	Hero Moto Corp Ltd.	14.0777	22.01
8	Housing Development and Finance Corporation Ltd.	19.522	16.206
9	Hindustan Unilever Ltd.	25.044	23.478
10	Induslnd Bank Ltd.	38.342	29.085
11	Infosys Ltd.	-15.478	24.36
12	Itc Ltd.	-1.346	15.085
13	Kotak Mahindra Bank Ltd.	19.985	39.453
14	Larsen and Toubro Ltd.	5.693	18.99
15	Mahindra & Mahindra Ltd.	0.279	22.13
16	Oil & Natural Gas Corporation Of India Ltd.	-6.92	18.981
17	Reliance Industries Ltd.	1.287	9.217
18	Tata Consultancy Service Ltd.	10.6579	12.8074
19	Wipro Ltd.	-12.595	12.35
20	Yes Bank Ltd.	20.3396	61.29

Graph no 21: Graph showing Return of the Selected Stocks



Graph no 22: Graph showing Risk of the Selected Stocks



CHAPTER-5

SUMMARY OF FINDINGS SUGGESTIONS AND CONCLUSION

5.1 Findings

1. It is possible to construct an optimal portfolio using only 20 companies scrips listed at Bombay stock exchange.
2. The risks involved in the stocks are not same for each year. It always vary from time to time.
3. Yes Bank returns are heavily fluctuating at 2014 the return is 108.8 and suddenly collapsed to -6.1 in the next year and same repeated in the preceding years.
4. The returns of Wipro ltd from 2014 are as follows -0.93, 0.38, -14.74, -33.88, -13.80. We can see that it is constantly giving negative except 2015. Hence there is no development in the stock returns.
5. By the analysis we can see that Axis bank has always given effective returns. The returns are 33.02, 13.6, -4.2, 65.5 and 17.2 from 2014 respectively, so axis can help in constructing effective portfolio.
6. When we compare Induslnd Bank with other stocks we can find that Induslnd bank has never given negative returns. The return of the stock is 38.3 and risk is 29.08 where risk is lower than return, hence it is good for investment.
7. The Risk and Return of Bajaj Auto is 10.08 and 14.8 respectively, as it contains less risk and less return it is good for entry level traders.
8. It is said that when risk is high the return will also be high, but when we see Coal India's Risk is 17.3 and Return is 0.03. By this we can conclude that Return is not dependent on Risk.

5.2 Suggestions

1. Investor should analyze the risk factors involved in the stock market and also have thorough knowledge of the risk which will help him to plan his investment in such a manner to minimize the risk involved with investments.
2. The investor should always be prepared to hold the stock for a certain period of time to take out the benefits from the rising trends in the market. Investor should be very careful in the timings of the purchase and sale of the stock which is the most important aspect in trading.
3. There is another way to avoid the risk that is to have an investment in short term security rather than having in long term investment.
4. The standard deviation calculation can yield the variability of the return, if at all any inconsistency found in the earnings it is better to avoid it.
5. According to the study I can suggest that investors can invest in the shares which earn higher average return. The investors can also invest in the companies which is associated with lesser risk.
6. The risk and return of Hindustan Unilever is 25.04, 23.4 respectively. This has given moderate risk with moderate return. Hence it is good for investment.

6.3 Conclusion

This study was conducted for testing the utility of sharpe's single index model in optimum portfolio construction which included 20 company scrips which is listed at Bombay stock exchange with Sensex as the bench mark index. This study made an effort to help the investors who plan to invest in the companies which are listed at Bombay stock exchange considering only 20 companies which are listed in Sensex. The method chosen for study is very effective and feasible as it is done continuously. This study will help the investors to minimize the overall risk and maximize return on their investment over the period of time and manage effective portfolio. Sharpes index model developed by William Sharpe proves that it is the best model for investment. Thus the investors can diversify their risk by investing in group of securities.

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Table no 23: Balance Sheet (In Crores)

PARTICULARS	2015-16	2016-17	2017-18
EQUITY AND LIABILITIES			
Shareholders Fund:			
Share Capital	3.78	3.96	4.24
Reserves & Surplus	15.49	15.14	14.67
Non Current Liabilities			
Long Term Borrowing	1.02	1.09	1.45
Long Term Provisions	0.19	0.39	0.48
Current Liabilities			
Short Term Borrowing	3.45	4.25	4.19
Trade Payables	1.37	1.78	1.97
Other Current Liabilities	0.36	0.45	0.76
Short Term Provisions	1.87	2.00	2.19
TOTAL LIABILITIES	**27.53**	**29.06**	**30.92**
ASSETS			
Non-Current Assets			
Fixed Assets (tangible)	0.45	0.75	0.92
Non Current Investments			
Deferred Tax Assets	0.20	0.40	0.51
Long Term Loans and Advances	0.41	0.47	0.68
Trade Receivables	2.16	3.11	3.46
Current Asset			
Inventories	4.92	4.98	4.02
Trade Receivables	1.49	0.13	0.51
Cash and Cash Equivalents	5.78	6.12	6.87
Short Term Loans & Advances	12.12	13.10	13.95
TOTAL ASSETS	**27.53**	**29.06**	**30.92**

ACHARYA INSTITUTE OF TECHONOLOGY
DAPARTMENT OF MBA

INTERNSHIP WEEKLY REPORT

(15 JAN 2018 TO 24 MARCH 2018)

Name of the Student: ABHISHEK.V

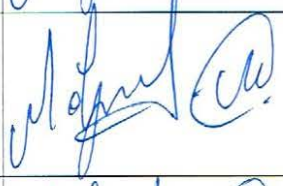
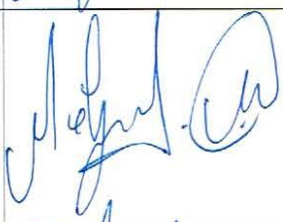
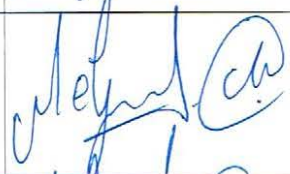
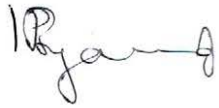
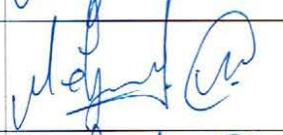
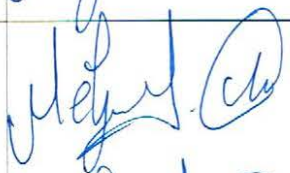
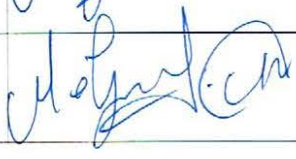
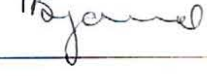
Internal Guide: Dr.PRAKASH B YARGOL

USN No: 1AZ16MBA04

Specialization: Finance & Marketing

Title of the Project: "A Study on Risk and Return Analysis of Selected Stocks in BSE Sensex"

Company Name: J WINGS

Work	Work Undertaken	External Guide Signature	Internal Guide Signature
15/1/2018-20/1/2018	Introduction about Pattern effects labs and its operation		
22/1/2018-27/1/2018	Learning about different operation and products		
29/1/2018-3/2/2018	Orientation and Gathering information about growth of company		
5/2/2018-10/2/2018	Analysis of market position of the company		
12/2/2018-17/2/2018	Research problems identification		
19/2/2018-24/2/2018	Preparation of research instruction for data collection		
26/2/2018-3/3/2018	Theoretical background of the study		
5/3/2018-10/3/2018	Data collection and data analysis		

12/3/2018-17/3/2018	Interpretation of the data gathered during the survey		
19/3/2018-24/3/2018	Final report preparation and submission		

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