

A STUDY ON RISK MANAGEMENT

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ABSTRACT

The concept of "risk management" originally entered medicine in the United States from the insurance world as a consequence of the medical malpractice crisis. With the realization that much negligence-related injury in health care can be avoided, a positive concept of risk management has developed, complemented by a methodical approach to quality assurance. Risk management and quality assurance differ in their focus and methods, but they have in common the objective of identifying and eliminating risk factors and ensuring adequate standards of patient care. If risk management activities are to be fully accepted by health professionals it is important that the latter be taught to understand that the process is not a witch-hunt but a genuine attempt to learn from errors and thereby improve the standard of practice.

INTRODUCTION

Risk management occurs everywhere in the financial world. It occurs when an investor buys low-risk government bond over riskier corporate bond when a manager fund hedges his currency exposure with currency derivatives and when a bank performs a credit check on an individual before issuing a personal line of credit. Stockbrokers use financial instruments like options and futures and money managers use strategies like portfolio and investment diversification, in order to mitigate or effectively manage risk.

In the financial world, risk management is the process of identification, analysis and acceptance or mitigation of uncertainty in investment decisions. Essentially, risk management occurs any time an investor fund manager analyzes and attempts to quantify the potential for losses in an investment and then takes the appropriate action (or inaction) given his investment objective and risk tolerance.

Risk management is an important part of planning for businesses. The process of risk management is designed to reduce or eliminate the risk of certain kinds of events happening or having an impact on the business.

DEFINITION OF RISK MANAGEMENT

Risk management is a process for identifying, assessing, and prioritizing risks of different kinds. Once the risks are identified, the risk manager will create a plan to minimize or eliminate the impact of negative events. A variety of strategies is available, depending on the type of risk and the type of business. There are a number of risk management standards, including those developed by the Project Management Institute, the International Organization for Standardization (ISO), the National Institute of Science and Technology, and actuarial societies.

OBJECTIVE OF THE STUDY

- To analyze the investment decision process.
- To analyze the risk return characteristics of HDFC.

- To analyze Risk Management in HDFC.

SCOPE OF THE STUDY

This study covers the Markowitz model. The study covers the calculation of correlations between the different securities in order to find out at what percentage funds should be invested among the companies in the portfolio. Also, the study includes the calculation of individual Standard Deviation of securities and ends at the calculation of weights of individual securities involved in the portfolio. These percentages help in allocating the funds available for investment based on risky portfolios. The present study covers risk management practices in HDFC bank which will be conducted for a period of 45 days.

IMPORTANCE OF THE STUDY

The idea behind using risk management practices is to protect businesses from being vulnerable. Many business risk management plans may focus on keeping the company viable and reducing financial risks. However, risk management is also designed to protect the employees, customers, and general public from negative events like fires or acts of terrorism that may affect them. Risk management practices are also about preserving the physical facilities, data, records, and physical assets a company owns or uses.

ABOUT THE COMPANY

A bank is a financial institution that accepts deposits and channels those deposits into lending activities. Banks primarily provide financial services to customers while enriching investors. Government restrictions on financial activities by banks vary over time and location. Banks are important players in financial markets and offer services such as investment funds and loans. In some countries such as Germany, banks have historically owned major stakes in industrial corporations while in other countries such as the United States banks are prohibited from owning non-financial companies. In Japan, banks are usually the nexus of a cross-shareholding entity known as the keiretsu. In France, bancassurance is prevalent, as most banks offer insurance services (and now real estate services) to their clients.

India's banking sector is constantly growing. Since the turn of the century, there has been a noticeable upsurge in transactions through ATMs, and also internet and mobile banking.

Following the passing of the Banking Laws (Amendment) Bill by the Indian Parliament in 2017, the landscape of the banking industry began to change. The bill allows the Reserve Bank of India (RBI) to make final guidelines on issuing new licenses, which could lead to a bigger number of banks in the country. Some banks have already received licenses from the government, and the RBI's new norms will provide incentives to banks to spot bad loans and take requisite action to keep rogue borrowers in check.

Over the next decade, the banking sector is projected to create up to two million new jobs, driven by the efforts of the RBI and the Government of India to integrate financial

services into rural areas. Also, the traditional way of operations will slowly give way to modern technology.

DATA COLLECTION

The study is both descriptive and analytical in nature. It is a blend of primary data and secondary data. The primary data has been collected personally by approaching the online share traders who are engaged in share market. The data are collected with a carefully prepared questionnaire. The secondary data has been collected from the books, journals and websites which deal with online share trading.

Source of data

Secondary method: The secondary data collection method includes:

- **Financial records**
- **Records of HDFC**

RISK MANAGEMENT TOOLS AND TECHNIQUES

1. **REGRESSION ANALYSIS:** This approach is used to study the effects on one variable when the other one changes. Let's say for instance what changes will cash inflow encounter when rate of interest increases or decreases.
2. **VALUE AT RISK (VAR):** Another popular approach measuring and checking the financial risk is VAR analysis. VAR is measured with respect to the amount of potential loss, the probability of that amount of loss, and the time frame.
3. **SECURITY ANALYSIS:** Analysis of tradable financial instruments like debts (money borrowed from market), equity (owner's fund), mixture of these two and warrants of company is known as security analysis. Sometimes futures contracts and tradable credit derivatives are also included. Security analysis is further sub-categorized into fundamental analysis, which works in accordance to different fundamental business factors such as financial statements, and technical analysis, which focuses upon price trends and momentum.
4. **SCENARIO ANALYSIS:** Scenario analysis is another useful approach in quantifying risks. It is also known by stress tests, sensitivity tests, or 'what if?' analysis. Financial managers create more than one scenario and ask 'what if' this situation was to occur?

LIMITATIONS

- The study is confined just to the foreign exchange risk but not the total risk.
- The analysis of this study is mainly done on the income statements.
- This study is limited for the year 2017-2021.
- It does not take into consideration all Indian companies foreign exchange risk.
- The hedging techniques are studied only which the company adopted to minimize foreign exchange risk.
- Only two samples have been selected for constructing a portfolio.

- Share prices of scripts of 5 years period was taken.
- The study is to confine just to the foreign exchange risk but not the total risk.
- The analysis of this study is mainly done on the income statements.
- It does not take into consideration all Indian companies foreign exchange risk.

DATA ANALYSIS & INTERPRETATION

Banking Sector

Punjab National Bank September

ICICI Date	Stock price		Sensex price		Return		X*y	X^2
	Open	Close	Open	Close	Stock	Market		
30-Sep-18	889.2	875.4	5109.8	5040	-1.5520	-1.366	2.189977	1.865963
29-Sep-18	862.15	890.7	4998.9	5018.2	3.3185	0.366081	1.218272	0.184015
28-Sep-18	890.5	868.75	4993.35	5064.3	-2.4424	1.42089	-3.47045	2.018928
27-Sep-18	874.5	886.05	5080.15	5184.65	1.3208	0.875958	1.156926	0.767303
26-Sep-18	844	858.05	5189.2	5153.25	1.6647	0.273389	0.455108	0.074741
23-Sep-18	848.3	843.75	5181.3	5059.45	-0.5364	-1.97334	1.058434	3.894071
22-Sep-18	880.1	862.35	4981.7	4946.8	-2.0188	-0.70056	1.418909	0.49079
21-Sep-18	886.9	901.2	4977.8	4940.45	1.6184	-0.75033	-1.2098	0.562997
20-Sep-18	862.25	882.35	4965.05	5018.55	2.3318	0.956687	2.230184	0.91525
19-Sep-18	877.7	859.5	5062.35	5075.7	-2.0736	0.263718	-0.54683	0.069544
18-Sep-18	891	883.9	5183.35	5084.25	-0.7969	-0.76318	0.60818	0.582432
15-Sep-18	875	876.2	5068.4	5031.95	0.1871	-0.71918	-0.09863	0.518194
18-Sep-18	856.85	864.05	5042.55	5180.2	0.8403	1.93652	1.627233	3.750181
18-Sep-18	872.5	852.4	5153.75	5183.25	-2.3037	-0.39777	0.918349	0.15822
18-Sep-18	880.3	862.35	5054.45	4923.65	-2.0391	-2.58782	5.276763	6.696805
9-Sep-18	925.75	896.8	4873.75	4867.75	-3.1872	-0.18318	0.384984	0.015156
8-Sep-18	901.9	918.95	4873.75	4867.75	1.8905	-0.18318	-0.23273	0.015156
7-Sep-18	894	897.35	4878.6	4835.4	0.3747	-0.8855	-0.33181	0.78418
6-Sep-18	875	889.25	5005.5	4945.9	1.6286	-1.19069	-1.93918	1.418743
5-Sep-18	877	883.2	4924.2	5015.45	0.7070	1.853093	1.310054	3.433953
2-Sep-18	891.5	887.15	4990.15	4943.25	-0.4879	-0.93985	0.458593	0.883321
						-4.57409	18.3985	29.0478
		Beta	0.442777	SD	1.861585	Var	3.465499	

Punjab National Bank October

ICICI Date	Stock price		Sensex price		Return		X*y	X^2
	Open	Close	Open	Close	Stock	Market		
31-Oct-18	935	931.15	4874.4	4849.5	-0.4188	-0.51083	0.210343	0.260949
28-Oct-18	918.65	933.35	4823.5	4772.15	2.3803	-1.06458	-2.53402	1.18333
26-Oct-18	885	871.7	4791.3	4751.3	-1.5028	-0.83485	1.254628	0.696969
25-Oct-18	879	878.4	4883.65	4888.05	-0.0683	0.090097	-0.00615	0.008187
24-Oct-18	884.8	868.45	4886.85	4888.05	-1.8479	0.024556	-0.04538	0.000603
21-Oct-18	880	870.55	5019.9	4974.35	-1.0739	-0.90739	0.974418	0.823354
20-Oct-18	885.35	878.05	5018.2	5099.4	-0.8245	1.760057	-1.45182	3.097802

19-Oct-18	888	904.15	5180.8	5077.85	1.8187	-1.032	-1.8769	1.06503
18-Oct-18	888	876.5	5057.35	5182.3	-1.2950	1.482001	-1.91926	2.196328
18-Oct-18	895	898.85	5156.2	5188.25	0.4302	-0.73601	-0.31861	0.541807
18-Oct-18	877	890.4	5049.45	5037.5	1.5279	-0.23666	-0.3618	0.056008
16-Oct-18	875.5	879.85	5080.45	5189.15	0.4969	1.155409	0.574076	1.334971
18-Oct-18	840	859.7	5086.55	5091.9	2.3452	0.105189	0.246671	0.018063
18-Oct-18	852	832.5	5106.6	5049.95	-2.2887	-1.10935	2.539002	1.230655
10-Oct-18	824.9	842.65	5184.7	5098.35	2.1518	-0.31967	-0.68785	0.102187
7-Oct-18	818.1	824.45	5187.9	5191.6	0.8995	1.045184	0.940158	1.092389
5-Oct-18	801	779.25	5218.95	5201.8	-2.7154	-0.25218	0.684703	0.063584
4-Oct-18	834	800.95	5341.9	5360.7	-3.9628	0.351935	-1.39466	0.183858
3-Oct-18	860	839.1	5358.9	5326.6	-2.4302	-0.60274	1.464788	0.36329
						-1.59182	-1.70486	18.20219

Beta 0.18182 SD 1.887418 Var 3.562346

Punjab National Bank November

ICI CI Date	Stock price		Sensex price		Return		X*y	X^2
	Open	Close	Open	Close	Stock	Market		
30-Nov-18	724	718.45	5278.6	5257.95	-1.5953	-0.3918	0.624086	0.153039
29-Nov-18	750.5	733.95	5218.75	5258.45	-2.2052	0.799348	-1.76272	0.638958
28-Nov-18	730	749.85	5241.55	5265.75	2.7192	0.461895	1.255432	0.218183
25-Nov-18	725.3	718.2	5325.4	5284.2	-0.9789	-0.77365	0.757331	0.598536
24-Nov-18	726	730.1	5292.25	5289.35	0.5647	-0.0548	-0.03095	0.003003
23-Nov-18	739.95	726.7	5309.7	5221.05	-1.7907	-1.66959	2.989663	2.787518
22-Nov-18	740.05	745.45	5159.75	5188.85	0.7297	0.186365	0.18869	0.031805
21-Nov-18	762.9	731.6	5218.35	5188.35	-4.1028	-1.32251	5.425951	1.749034
18-Nov-18	770	770.1	5181.2	5068.5	0.0180	-1.22194	-0.01587	1.493189
18-Nov-18	790.5	778.2	5059.1	5030.45	-1.5560	-0.56631	0.88186	0.320703
16-Nov-18	787	788.85	5027.1	4934.75	0.2351	-1.83704	-0.43183	3.374728
15-Nov-18	819	789.85	4899.15	4905.8	-3.5592	0.185738	-0.48318	0.018425
18-Nov-18	837.9	821	4873.8	4778.35	-2.0189	-1.95843	3.950051	3.835451
16-Nov-18	856.25	821	4794.85	4818.35	-4.1868	0.364975	-1.50252	0.183207
9-Nov-18	886.75	862.15	4779.5	4706.45	-2.7742	-1.5284	4.240057	2.336018
8-Nov-18	884.5	881.3	4707.55	4756.45	-0.3618	1.038757	-0.37581	1.079018
4-Nov-18	889.6	884.3	4731.3	4710.05	-0.5958	-0.44918	0.267584	0.201824
3-Nov-18	880	878.05	4769.3	4851.3	-0.2218	1.71933	-0.38099	2.956095
2-Nov-18	885.7	885	4864.2	4805.1	-0.0790	-1.215	0.096026	1.476224
1-Nov-18	918.95	895	4766.15	4832.05	-2.5001	1.382667	-3.45686	1.918769
						-6.90918	18.18536	25.31084

Beta 0.531818 SD 1.747704 Var 3.054471

Punjab National Bank

Standard deviation (total risk associated with stock) is 1.86 where as the beta value is 0.44. It shows that diversification of this stock would help the investor to eliminate considerable part

of risk associated with this stock. Here the beta is less than 1 it shows that the low volatility of the price of the stock in comparison with market returns. The above graph reveals that the average stock return is well above the market return.

Standard deviation (total risk associated with stock) is 1.88 where as the beta value is -0.181 the beta values less than 1 it shows that this stock is risky and volatile than the index. The systematic risk here is very high and the standard risk associated with any stock so an investor should be careful while investing this stock.

Standard deviation (total risk associated with stock) is 1.747 where as the beta value is 0.531 it shows that diversification of this stock would help the investor to eliminate considerable part of risk associated with this stock. Here the beta is less than 1 it shows that the low volatility of the price of the stock in comparison with market returns.

In the case of icecap bank the stock is more volatile and the systematic risk associate with this stock is very high since the beta value on an average less than 1 its above the standard. The fluctuation in this stock mainly because of inflationary trend in the economy because of high inflation rate RBI forced to increase the CRR and interest rate that would be the reason for the down ward trend of this stock. The average stock return is below the market return so an investor must take an extra care while investing in this stock.

Canara Bank September

SUNPHARM A	Stock price		Sensex price		Return		X*y	X^2
	Date	Open	Close	Open	Close	Stock		
30-Sep-18	66.2	65.6	5109.8	5040	-0.9063	-1.366	1.238069	1.865963
29-Sep-18	67.1	66.7	4998.9	5018.2	-0.5961	0.366081	-0.21823	0.184015
28-Sep-18	69.5	67.75	4993.35	5064.3	-2.5180	1.42089	-3.57778	2.018928
27-Sep-18	68.65	67.5	5080.15	5184.65	-1.6752	0.875958	-1.46737	0.767303
26-Sep-18	69.5	67	5189.2	5153.25	-3.5971	0.273389	-0.98341	0.074741
23-Sep-18	68	67.65	5181.3	5059.45	-0.5187	-1.97334	1.01569	3.894071
22-Sep-18	71	69.1	4981.7	4946.8	-2.6761	-0.70056	1.874749	0.49079
21-Sep-18	70.1	72.25	4977.8	4940.45	3.0670	-0.75033	-2.3018	0.562997
20-Sep-18	69	71	4965.05	5018.55	2.8986	0.956687	2.773007	0.91525
19-Sep-18	69.1	69.15	5062.35	5075.7	0.0724	0.263718	0.019082	0.069544
18-Sep-18	68	69.5	5183.35	5084.25	2.2059	-0.76318	-1.68347	0.582432
15-Sep-18	67.8	68.3	5068.4	5031.95	0.7375	-0.71918	-0.53036	0.518194
18-Sep-18	66.15	67.2	5042.55	5180.2	1.5873	1.93652	3.073842	3.750181
18-Sep-18	65.6	66.9	5153.75	5183.25	1.9818	-0.39777	-0.78826	0.15822
16-Sep-18	67.1	65.75	5054.45	4923.65	-2.0189	-2.58782	5.206491	6.696805
9-Sep-18	69.95	68	4873.75	4867.75	-2.7877	-0.18318	0.34319	0.015156
8-Sep-18	70.4	69.4	4873.75	4867.75	-1.4205	-0.18318	0.18487	0.015156
7-Sep-18	67.2	69.55	4878.6	4835.4	3.4970	-0.8855	-3.09661	0.78418
6-Sep-18	68.7	66.4	5005.5	4945.9	-3.3479	-1.19069	3.986299	1.418743
5-Sep-18	69.5	67.7	4924.2	5015.45	-2.5899	1.853093	-4.79938	3.433953
2-Sep-18	68.6	69.5	4990.15	4943.25	1.3180	-0.93985	-1.23304	0.883321

Beta -1.39592 SD 2.301578 Var 5.297263

Canara Bank October

SUNPHAR MA	Stock price		Sensex price		Return		X*y	X^2
	Date	Open	Close	Open	Close	Stock		
31-Oct-18	63.9	63.45	4874.4	4849.5	-0.7042	-0.51083	0.359741	0.260949
28-Oct-18	62	62.8	4823.5	4772.15	1.2903	-1.06458	-1.37365	1.18333
26-Oct-18	61.8	61.65	4791.3	4751.3	-0.2427	-0.83485	0.202633	0.696969
25-Oct-18	60.9	61	4883.65	4888.05	0.1842	0.090097	0.018794	0.008187
24-Oct-18	63.25	60.95	4886.85	4888.05	-3.6364	0.024556	-0.08929	0.000603
21-Oct-18	60.8	61.8	5019.9	4974.35	1.6447	-0.90739	-1.49242	0.823354
20-Oct-18	60.2	61.45	5018.2	5099.4	2.0764	1.760057	3.654604	3.097802
19-Oct-18	62.35	60.7	5180.8	5077.85	-2.6464	-1.032	2.731042	1.06503
18-Oct-18	62	60.9	5057.35	5182.3	-1.7742	1.482001	-2.62936	2.196328
18-Oct-18	65	62.75	5156.2	5188.25	-3.4615	-0.73601	2.547718	0.541807
18-Oct-18	62.9	63.3	5049.45	5037.5	0.6359	-0.23666	-0.1505	0.056008
18-Oct-18	62.2	62.35	5080.45	5189.15	0.2418	1.155409	0.278636	1.334971
16-Oct-18	60.4	62.2	5086.55	5091.9	2.9801	0.105189	0.318448	0.018063
18-Oct-18	58.9	59.65	5106.6	5049.95	1.2733	-1.10935	-1.41858	1.230655
10-Oct-18	59.9	58.9	5184.7	5098.35	-1.6694	-0.31967	0.533668	0.102187
7-Oct-18	62.85	58.6	5187.9	5191.6	-6.7621	1.045184	-7.06761	1.092389
5-Oct-18	64.1	60	5218.95	5201.8	-6.3963	-0.25218	1.618878	0.063584
4-Oct-18	64.05	64.2	5341.9	5360.7	0.2342	0.351935	0.08242	0.183858
3-Oct-18	65.1	64.75	5358.9	5326.6	-0.5376	-0.60274	0.324051	0.36329
						-1.59182	-1.55977	18.20219

2.68348

Beta -0.18081 SD 5 Var 7.201093

Canara Bank November

SUNPHA RMA	Stock price		Sensex price		Return		X*y	X^2
	Date	Open	Close	Open	Close	Stock		
30-Nov-18	51.7	52.65	5278.6	5257.95	1.8375	-0.3918	-0.71884	0.153039
29-Nov-18	52.25	52.1	5218.75	5258.45	-0.2871	0.799348	-0.22948	0.638958
28-Nov-18	51.95	52.3	5241.55	5265.75	0.6737	0.461895	0.318056	0.218183
25-Nov-18	50.55	50.05	5325.4	5284.2	-0.9891	-0.77365	0.765233	0.598536
24-Nov-18	52.05	50.9	5292.25	5289.35	-2.2094	-0.0548	0.18107	0.003003
23-Nov-18	54.5	52	5309.7	5221.05	-4.5872	-1.66959	7.658651	2.787518
22-Nov-18	54.9	53.6	5159.75	5188.85	-2.3679	0.186365	-0.41862	0.031805
21-Nov-18	55	53	5218.35	5188.35	-3.6364	-1.32251	4.809189	1.749034
18-Nov-18	54.8	55.5	5181.2	5068.5	1.2774	-1.22194	-1.56087	1.493189
18-Nov-18	58	55.4	5059.1	5030.45	-4.4828	-0.56631	2.538618	0.320703
16-Nov-18	60	57.1	5027.1	4934.75	-4.8333	-1.83704	8.879042	3.374728
15-Nov-18	63.35	58.9	4899.15	4905.8	-7.0245	0.185738	-0.95349	0.018425
18-Nov-18	67.7	64.2	4873.8	4778.35	-5.1899	-1.95843	10.18483	3.835451

16Nov-18	64.35	66.1	4794.85	4818.35	2.7195	0.364975	0.99255	0.183207
9-Nov-18	67	63.85	4779.5	4706.45	-4.7015	-1.5284	7.185773	2.336018
8-Nov-18	67.9	67.05	4707.55	4756.45	-1.2518	1.038757	-1.30036	1.079018
4-Nov-18	65.05	67.55	4731.3	4710.05	3.8432	-0.44918	-1.72618	0.201824
3-Nov-18	63.75	65.45	4769.3	4851.3	2.6667	1.71933	4.58488	2.956095
2-Nov-18	63.5	63.75	4864.2	4805.1	0.3937	-1.215	-0.47835	1.476224
1-Nov-18	63.25	63.1	4766.15	4832.05	-0.2372	1.382667	-0.32791	1.918769
						-6.90918	40.2578	25.31084

Beta 1.756189 SD 3.109667 Var 9.670029

Canara Bank

Standard deviation (total risk associated with stock) is 2.30 where as the beta value is -1.39. It shows that diversification of this stock would help the investor to eliminate considerable part of risk associated with this stock. When we compare it with the total risk. Here the beta is less than 1 it shows that the low volatility of the price of the stock in comparison with market returns. The above graph reveals that the average stock return is well above the market return and frequent fluctuation in price put the stock under the scanner.

Standard deviation (total risk associated with stock) is 2.68 where as the beta value is -0.18. It shows that diversification of this stock would help the investor to eliminate considerable part of risk associated with this stock. Here the beta is less than 1 it shows that the low volatility of the price of the stock in comparison with market returns. The above graph reveals that the average stock return is below the market return. In the month of October this stock fluctuating along with the market here the non diversifiable risk is very less so proper diversification of the portfolio ensure maximum return with minimum investment.

Total risk associated with this stock is 3.10 and the beta is 1.756 here it means all the risk associated with this stock can be eliminated with proper diversification of the portfolio in this particular month the return from this stock much above the market return but some trading day the price of the stock is crumbling down may be because of the high selling trend for short term profile.

The overall performance of this stock is promising the risk associated with this stock comparatively high. The average beta is more than one that means this stock is high volatile than the market. Proper diversification of the portfolio will help the investor to eliminate the considerable part of the risk.

SBI September

SBI Date	Stock price		Sensex price		Return		X*y	X^2
	Open	Close	Open	Close	Stock	Market		
30-Sep-18	2531.9	2533.05	5109.8	5040	0.0454	-1.366	-0.06204	1.865963
29-Sep-18	2482	2551.1	4998.9	5018.2	2.7840	0.366081	1.019185	0.184015
28-Sep-18	2480	2470.25	4993.35	5064.3	-0.3931	1.42089	-0.55862	2.018928
27-Sep-18	2377.2	2444.15	5080.15	5184.65	2.8183	0.875958	2.466995	0.767303
26-Sep-18	2345	2355	5189.2	5153.25	0.4264	0.273389	0.186584	0.074741
23-Sep-18	2328	2338.8	5181.3	5059.45	0.4639	-1.97334	-0.91547	3.894071
22-Sep-18	2384	2352.6	4981.7	4946.8	-1.3181	-0.70056	0.922723	0.49079



21-Sep-18	2440	2435.65	4977.8	4940.45	-0.1883	-0.75033	0.183768	0.562997
20-Sep-18	2377	2436.55	4965.05	5018.55	2.5053	0.956687	2.396749	0.91525
19-Sep-18	2399	2362.65	5062.35	5075.7	-1.5152	0.263718	-0.39958	0.069544
18-Sep-18	2457.9	2395.15	5183.35	5084.25	-2.5530	-0.76318	1.948374	0.582432
15-Sep-18	2378	2409.9	5068.4	5031.95	1.3415	-0.71918	-0.96473	0.518194
18-Sep-18	2251	2351.65	5042.55	5180.2	4.4718	1.93652	8.658852	3.750181
16-Sep-18	2223.1	2222.05	5153.75	5183.25	-0.0472	-0.39777	0.018787	0.15822
18-Sep-18	2208	2198.45	5054.45	4923.65	-0.4325	-2.58782	1.189278	6.696805
9-Sep-18	2328.1	2274.3	4873.75	4867.75	-2.3109	-0.18318	0.284491	0.015156
8-Sep-18	2300	2338.45	4873.75	4867.75	1.6718	-0.18318	-0.20581	0.015156
7-Sep-18	2297.9	2291.45	4878.6	4835.4	-0.2807	-0.8855	0.248552	0.78418
6-Sep-18	2253.9	2302.55	5005.5	4945.9	2.1585	-1.19069	-2.57008	1.418743
5-Sep-18	2293.7	2265.1	4924.2	5015.45	-1.2469	1.853093	-2.31061	3.433953
2-Sep-18	2385	2319.2	4990.15	4943.25	-2.7589	-0.93985	2.592966	0.883321
						-4.57409	18.94037	29.0478

Beta 0.49784 SD 1.993949 Var 3.975834

SBI October

SBI	Stock price		Sensex price		Return			
Date	Open	Close	Open	Close	Stock	Market	X*y	X^2
31-Oct-18	2856	2877.55	4874.4	4849.5	0.7546	-0.51083	-0.38545	0.260949
28-Oct-18	2921	2858.65	4823.5	4772.15	-2.1845	-1.06458	2.272391	1.18333
26-Oct-18	2861.9	2838.65	4791.3	4751.3	-0.8184	-0.83485	0.678227	0.696969
25-Oct-18	2818	2858.7	4883.65	4888.05	1.6969	0.090097	0.152885	0.008187
24-Oct-18	2750	2767.3	4886.85	4888.05	0.6291	0.024556	0.015448	0.000603
21-Oct-18	2747.55	2722.65	5019.9	4974.35	-0.9063	-0.90739	0.822332	0.823354
20-Oct-18	2692	2747.55	5018.2	5099.4	2.0635	1.760057	3.631918	3.097802
19-Oct-18	2722	2727.75	5180.8	5077.85	0.2182	-1.032	-0.218	1.06503
18-Oct-18	2699.9	2701.55	5057.35	5182.3	0.0618	1.482001	0.09057	2.196328
18-Oct-18	2761.1	2746.55	5156.2	5188.25	-0.5270	-0.73601	0.387849	0.541807
16-Oct-18	2718.1	2743.75	5049.45	5037.5	1.2043	-0.23666	-0.28501	0.056008
18-Oct-18	2719	2696.7	5080.45	5189.15	-0.8202	1.155409	-0.94761	1.334971
18-Oct-18	2595	2679.35	5086.55	5091.9	3.2505	0.105189	0.341884	0.018063
16-Oct-18	2593.4	2504.55	5106.6	5049.95	-3.4260	-1.10935	3.800634	1.230655
10-Oct-18	2545	2589.95	5184.7	5098.35	1.7662	-0.31967	-0.5646	0.102187
7-Oct-18	2560	2508.7	5187.9	5191.6	-2.0039	1.045184	-2.09443	1.092389
5-Oct-1	2457.95	2446.95	5218.95	5201.8	-0.4475	-0.25218	0.182848	0.063584
4-Oct-18	2452.2	2438.5	5341.9	5360.7	-0.5587	0.351935	-0.19662	0.183858
3-Oct-18	2490	2475.9	5358.9	5326.6	-0.5663	-0.60274	0.341808	0.36329
						-1.59182	7.956567	18.20219

Beta 0.565278 SD 1.618207 Var 2.602437

SBI November

SBI	Stock price	Sensex price	Return		
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Date	Open	Close	Open	Close	Stock	Market	X*y	X^2
30-Nov-18	2581	2606.85	5278.6	5257.95	1.0015	-0.3918	-0.39181	0.153039
29-Nov-18	2622.2	2597.95	5218.75	5258.45	-0.9248	0.799348	-0.73923	0.638958
28-Nov-18	2620.05	2636.15	5241.55	5265.75	0.6185	0.461895	0.283708	0.218183
25-Nov-18	2655	2599.7	5325.4	5284.2	-2.0829	-0.77365	1.618408	0.598536
24-Nov-18	2641	2666.2	5292.25	5289.35	0.9542	-0.0548	-0.05229	0.003003
23-Nov-18	2675	2652.65	5309.7	5221.05	-0.8355	-1.66959	1.394962	2.787518
22-Nov-18	2600	2724	5159.75	5188.85	4.7692	0.186365	0.841826	0.031805
21-Nov-18	2720	2670.1	5218.35	5188.35	-1.8346	-1.32251	2.426223	1.749034
18-Nov-18	2731.05	2740.8	5181.2	5068.5	0.3570	-1.22194	-0.43624	1.493189
18-Nov-18	2768.3	2753.5	5059.1	5030.45	-0.5346	-0.56631	0.302761	0.320703
16-Nov-18	2795	2778.3	5027.1	4934.75	-0.5975	-1.83704	1.097625	3.374728
15-Nov-18	2800.1	2798.3	4899.15	4905.8	-0.0643	0.185738	-0.00873	0.018425
18-Nov-18	2810.15	2808.8	4873.8	4778.35	-0.0480	-1.95843	0.094083	3.835451
16-Nov-18	2610.7	2775.7	4794.85	4818.35	6.3201	0.364975	2.306694	0.183207
9-Nov-18	2845	2835.3	4779.5	4706.45	-0.3409	-1.5284	0.521807	2.336018
8-Nov-18	2815.05	2842.1	4707.55	4756.45	0.9609	1.038757	0.998188	1.079018
4-Nov-18	2845	2825.95	4731.3	4710.05	-0.6696	-0.44918	0.30074	0.201824
3-Nov-18	2834	2802.1	4769.3	4851.3	-1.1856	1.71933	-1.93531	2.956095
2-Nov-18	2820	2834.4	4864.2	4805.1	0.5106	-1.215	-0.62043	1.476224
1-Nov-18	2840	2836.6	4766.15	4832.05	-0.1897	1.382667	-0.18553	1.918769
						-6.90918	7.829031	25.31084

Beta 0.341521 SD 2.000718 Var 4.002847

SBI

The total risk (standard deviation) associated with the stock is 1.99 and the beta is 0.49. It shows that diversification of this stock would help the investor to eliminate considerable part of risk associated with this stock. There is a huge difference between systematic and unsystematic risk here virtually no systematic risk associated with this stock when we compare it with the total risk. Here the beta is less than 1 it shows that the low volatility of the price of the stock in comparison with market returns. The above graph reveals that the average stock return is well above the market return.

Standard deviation (total risk associated with stock) is 1.61 where as the beta value is 0.56. It shows that diversification of this stock would help the investor to eliminate considerable part of risk associated with this stock. Here the beta is less than 1 it shows that the low volatility of the price of the stock in comparison with market returns. The above graph reveals that the average stock return is below the market return. In the month of October this stock is more fluctuating as a comparison to the market price and the fluctuation in the stock price compel the investor to compete with the bulls and bears in the market.

Standard deviation (total risk associated with stock) is 2.00 where as the beta value is 0.3415. It shows that diversification of this stock would help the investor to eliminate considerable part of risk associated with this stock. Here the beta is less than 1 by some small decimal. The above graph reveals that the average stock return is below the market return. In the month of November this stock price showing sudden ups and downs.

The average beta is less than one that means this stock is less volatile than the market. Proper diversification of the portfolio will help the investor to eliminate the considerable part of the risk. when we compare the market return with the stock return stock return shows a decreasing tendency means capital appreciation of the stock could not happened in the last three month . So it is better to hold the stock for some time and the position of the stock may improve in the nearest future at that time investor.

CHAPTER –V FINDINGS, SUGGESTIONS AND CONCLUSION

FINDINGS

- When comparing the beta value Banking companies the average beta less than one that means the risk associated with those stock are pretty low and the price of the shares are more fluctuating. One of the reason for this fluctuating may the inflationary trend in the economy baking shares are more bound to interest rate risk.
- Pharmaceutical company's beta values less than one means risk is comparatively low so diversification of portfolio may help the investor to eliminate the controllable risk associated with this stock. The growth in pharma stock mainly because of the growing strength of the Indian pharmaceutical companies they are largely venturing out of the country through merger and acquisitions and the increasing consideration of global players India is low cost hub of research and development.
- It Companies shares are promising one they are more bound to international risk since most other It Companies largely depends on the US Market any downward trend in the US economy may have a negative impact on these companies shares but for the long term Investment this shares are promising one.
- Few Socks negative beta in the month of October and November that means the systematic risk associated with this stock in that particular month is negative. And they have moved against the nifty.

RECOMMENDATIONS

- Based on the finding derived at, risk less investment can be made in the pharma stocks. They are volatile but still the risk associated with that stocks are less.
- In my view InfoTech shares are more volatile next to banking investment in info shares could be more riskier since Indian IT companies are more service based rather than product based so anybody can enter in to that sooner or later but the advantage of Indian IT companies are the talent pool available in India.
- When an investor opts to enter the stock market he should first gather sufficient information about the type of investment options available to him.
- The investor should be in a position to decide where and how much of funds are he ready to invest in particular security.
- Investor should not depend entirely on the past returns as the future is uncertain and the stock market is highly volatile.
- An investor must be in a position to judge which is the right time to enter into the market and quit the market.

**CONCLUSION**

As a whole the stock market is sometime highly volatile. It depends upon the investors how he can make use of this in order to get the money which he has put in the market an investor should be in a position to analyze the various investment options available to him and thus minimize the risk and maximize the returns. The investor should analyze the market on a continuous basis which will help them to pick the right companies to invest their funds. The beta value, standard deviation and variance helps the investors in arriving at decision. The investors should be in a position to interpret the data in the right manner to arrive at important conclusions and investment decision. I hope this dissertation will help the investors as a guiding record in future and help them to make appropriate investment decisions.

BIBLIOGRAPHY

1. Preeti Singh, (2002) *Investment management, 10th edition, Himalaya publication.*
2. Prasanna Chandra, (2005) *Investment Analysis, 2nd editon, Ms. Graw hill publishing Company.*
3. VA Avanti, (2003), *Investment Management, 5th edition, Himalaya Publications House.*
4. Edwin J Elton, (2002), *Modern Portfolio Theory and Investment Analysis, 5th edition John Wiley & sons.*