

Risk-Return Analysis – A Study of Banking Sector

Renuka .S¹, Dr. Shaheeda Banu S², Varsha K.S³

¹Asst. Prof, DMS, BITM, Ballari.

²Associate Prof, DMS, BITM, Ballari

³Student, IV Sem, DMS, BITM, Ballari

ABSTRACT

The concept of risk and return analysis is essential to the process of investing and financing. The risk and return analysis aims at maximizing the return by creating a balance of risk. Risk and return are two key determinants of share price. As we know, greater the risk we assume higher will be the return and lower the risk we assume lower will be the rate of return.

INTRODUCTION

The concept of risk and return analysis is essential to the process of investing and financing. The risk and return analysis aims at maximizing the return by creating a balance of risk. Risk and return are two key determinants of share price. As we know, greater the risk we assume higher will be the return and lower the risk we assume lower will be the rate of return.

Consequently Securities exchange explores is imperative so as to take great money related and speculation choices. It will probably have the capacity to decide the market cost and exchanging volume for the stock, high and low cost for the stock over exceptional interims and the income for the business endeavor. To choose the correct want of a security or portfolio to a speculator, it depends upon on the dimension of hazard that the stock conveys. An estimation of the hazard return profile of a security or portfolio is a basic factor in subsidizing the executives. The stock commercial center investigations will allow one to assess the possible danger of a stock towards the reasonable prizes the stock can likewise offer.

LITERATURE REVIEW

Gupta and Agarwal (2011) research the examination that goes for corresponding and looking at the circulation of securities exchange returns of India with other chose Asian rganizations. The outcome demonstrates that there is exceptionally powerless connection between's Indian markets and Hong Kong, Indonesia, Japan and Malaysia. N.K. Sathya Pal Sharma and Ravikumar.R (2013) attempted to decompose the performance of the common asset based on value in this review. From April 1999 to April 2013 (15 years), 15 private land units were surveyed by two private sector organizations and two regional open organizations. Dinesh Tandon and Dr Nidhi walia (2015) in their study, they are mainly focusing on dividend announcements as a indicator and how it is perceived by the investors in the market. .In this paper, they have attempted to study the performance of Indian corporate in relation to its benchmark index. Mr. Vijayakumar and S. Krishnaprabha (2015) explained that risk and retest play an important role in the company's fundamental leadership process. From a risk and income point of view, high risk offers excellent returns, while decent returns are low, but high risk rates in the banking and automobile sectors are low rates of return and quick sellers.

Bedanta Bora and Anindita Adhikary (2015) in their examination, they've expressed that interest in financial exchange is recommended to assorted hazard return the brokers get from substance that may vary from anticipated go back. Narayan Gaonkar and Dr. Kushalappa S. (2015) clarify that everybody perceive that hazard must be considered in demonstrating quality and settling on venture decisions. The investigation expresses that valuation and a comprehension of the tradeoff among hazard and return structure the establishment for amplifying investor riches. Abu T. Mollik and Mr. Khokan Bepari (2015) attempted to measure risk and Dhaka Stock Exchange (DSE) relationships in their paper. This survey clarifies the noticeable positive link between risk and return in terms of individual and portfolio security, and confirms hypothetical expectations and empirical findings on this problem in the generated market. Dr. R.Narayanasamy, and Ms. R.Thirugnanasoundari (2016) in their investigation have endeavored in clarifying the consistency among hazard and return in the Indian value showcase. It will help the partners to take

proper choice with reference to the season of venture, skyline of speculation, quantum of venture and even portfolio determination. Shaini Naveen and Dr. T. Mallikarjunappa (2016) have investigated in their paper the hazard and return in banking segment taking Nifty Bank Index as the benchmark.

The investigation analyzes the execution of the 12 recorded banks in the NSE. The examine assesses the execution of banking stocks in a general sense to perceive the required rate of return and danger of a chose stock dependent on various hazard components existing in the market and other monetary elements. Ms. BabithaRohit and Dr. Prakash Pinto (2017) Their study analyses the risk return relationship by using mean and standard deviation. Capital Asset Pricing Model is used to determine the expected return of the scrips. Dr. P. Subramanyam and Dr. Nalla Bala Kalyan (2018) in their paper they give financial specialists a fundamental arrangement of speculation into the common assets and urge them to make interest in those zones wherever they will augment their profits on their capital. Their examination gives mindfulness about the shared assets, chance taking capacities of financial specialists and speculation choices favored and so forth. The present paper encourages financial specialists to examine and see how the organizations extend themselves in different divisions and in different organizations to augment the profits and to limit the dangers associated with it.

Objectives Of The Study

- To measure the systematic risk of the securities.
- To evaluate the performance of stocks by using Sharpe ratio.

RESEARCH METHODOLOGY

The study is based on secondary source and the data required for this study was obtained from the website www.yahoofinance.com. 05 Companies were selected for the study.

Sampling Size: 05 companies are taken for the study (Union Bank of India, ICICI Bank, State Bank of India, Punjab National Bank, Canara Bank)

ANALYSIS OF DATA

1. Data Analysis of Union Bank of India:

Date	Adj Close	Bse Returns(x)	Adj Close	Company Returns(y)
31-12-2017	35965.01953		136.25	
31-01-2018	34184.03906	-4.951979705	105.550003	-22.53210789
28-02-2018	32968.67969	-3.55534164	94	-10.94268372
31-03-2018	35160.35938	6.647762991	95.400002	1.48936383
30-04-2018	35322.37891	0.460801692	90.699997	-4.926629876
31-05-2018	35423.48047	0.286225238	81.949997	-9.647188853
30-06-2018	37606.57813	6.162854771	86.449997	5.491153343
31-07-2018	38645.07031	2.76146419	89.75	3.817238999
31-08-2018	36227.14063	-6.256761001	65.75	-26.74094708
30-09-2018	34442.05078	-4.927493071	76.650002	16.57794981
31-10-2018	36194.30078	5.087530969	78.550003	2.478800979
30-11-2018	36068.32813	-0.348045558	85.900002	9.35709576
	Average returns	0.124274443	Average returns	-3.234359518
			Beta	1.381574361
			Standard deviation	13.26745982
			Risk free rate	6.56
			Sharpe ratio	-3.728802319

2. Data Analysis of ICICI Bank:

Date	Adj Close	Bse Returns(x)	Adj Close	Company Returns(y)
31-12-2017	35965.01953		347.494995	
31-01-2018	34184.03906	-4.951979705	308.408569	-11.24805438
28-02-2018	32968.67969	-3.55534164	274.047974	-11.14125821
31-03-2018	35160.35938	6.647762991	279.807556	2.10166925
30-04-2018	35322.37891	0.460801692	281.382782	0.562967642
31-05-2018	35423.48047	0.286225238	271.143555	-3.638896071

30-06-2018	37606.57813	6.162854771	299.547668	10.4756733
31-07-2018	38645.07031	2.76146419	341.075989	13.86367695
31-08-2018	36227.14063	-6.256761001	305.549988	-10.41586102
30-09-2018	34442.05078	-4.927493071	355	16.18393518
31-10-2018	36194.30078	5.087530969	355.149994	0.042251831
30-11-2018	36068.32813	-0.348045558	360.149994	1.407855859
	Average returns	0.124274443	Average returns	0.744905485
			Beta	0.902811407
			Standard deviation	9.679117616
			Risk free rate	6.56
			Sharpe ratio	0.067157754

3. Data Analysis of State Bank of India:

Date	Adj Close	Bse Returns(x)	Adj Close	Company Returns(y)
31-12-2017	35965.01953		313.25	
31-01-2018	34184.03906	-4.951979705	268	-14.44533121
28-02-2018	32968.67969	-3.55534164	249.899994	-6.753733582
31-03-2018	35160.35938	6.647762991	246.399994	-1.400560258
30-04-2018	35322.37891	0.460801692	269.549988	9.395290002
31-05-2018	35423.48047	0.286225238	259.350006	-3.784078076
30-06-2018	37606.57813	6.162854771	293.5	13.1675316
31-07-2018	38645.07031	2.76146419	309.600006	5.485521635
31-08-2018	36227.14063	-6.256761001	265.5	-14.24418771
30-09-2018	34442.05078	-4.927493071	281.399994	5.988698305
31-10-2018	36194.30078	5.087530969	284.649994	1.154939612
30-11-2018	36068.32813	-0.348045558	295.899994	3.95222211
	Average returns	0.124274443	Average returns	-0.134880688
			Beta	1.154991971
			Standard deviation	9.043355861
			Risk free rate	6.56
			Sharpe ratio	-0.860275121

4. Data Analysis of Punjab National Bank:

Date	Adj Close	Bse Returns(x)	Adj Close	Company Returns(y)
31-12-2017	35965.01953		171.350006	
31-01-2018	34184.03906	-4.951979705	101.400002	-40.82287806
28-02-2018	32968.67969	-3.55534164	95.300003	-6.015777988
31-03-2018	35160.35938	6.647762991	95.400002	0.104930742
30-04-2018	35322.37891	0.460801692	83.650002	-12.31656159
31-05-2018	35423.48047	0.286225238	76.150002	-8.965929254
30-06-2018	37606.57813	6.162854771	85.099998	11.75311328
31-07-2018	38645.07031	2.76146419	88.150002	3.584023586
31-08-2018	36227.14063	-6.256761001	59.700001	-32.27453245
30-09-2018	34442.05078	-4.927493071	73.650002	23.36683545
31-10-2018	36194.30078	5.087530969	69.900002	-5.091649556
30-11-2018	36068.32813	-0.348045558	78.099998	11.73103829
	Average returns	0.124274443	Average returns	-4.995217049
			Beta	1.671752557
			Standard deviation	18.87457791
			Risk free rate	6.56
			Sharpe ratio	-0.347557441

5. Data Analysis of Canara Bank:

Date	Adj Close	Bse Returns(x)	Adj Close	Company Returns(y)
31-12-2017	35965.01953		341.350006	
31-01-2018	34184.03906	-4.951979705	299.25	-12.3333837
28-02-2018	32968.67969	-3.55534164	263.899994	-11.8128675
31-03-2018	35160.35938	6.647762991	265.950012	0.776816236
30-04-2018	35322.37891	0.460801692	257.149994	-3.308899268
31-05-2018	35423.48047	0.286225238	251.550003	-2.177713837
30-06-2018	37606.57813	6.162854771	284.5	13.09878617
31-07-2018	38645.07031	2.76146419	283.700012	-0.281190861
31-08-2018	36227.14063	-6.256761001	220.850006	-22.15368465
30-09-2018	34442.05078	-4.927493071	261.950012	18.60991844
31-10-2018	36194.30078	5.087530969	255.800003	-2.347779621
30-11-2018	36068.32813	-0.348045558	275.049988	7.525404525
	Average returns	0.124274443	Average returns	-1.309508551
			Beta	1.016894664
			Standard deviation	11.66192011
			Risk free rate	6.56
			Sharpe ratio	-1.872023123

RISK AND RETURN ANALYSIS

S.NO	Name of the companies	Average Return	Standard deviation	BSE Returns	Beta	Sharpe ratio
1	Union Bank of India	-3.234359518	13.26745982	0.124274443	1.381574361	-3.728802319
2	ICICI Bank	0.744905485	9.679117616	0.124274443	0.902811407	0.067157754
3	State Bank of India	-0.134880688	9.043355861	0.124274443	1.154991971	-0.860275121
4	Punjab National Bank	-4.995217049	18.87457791	0.124274443	1.671752557	-0.347557441
5	Canara Bank	-1.309508551	11.66192011	0.124274443	1.016894664	-1.872023123

Beta: ICICI bank, since it has least beta value is less volatile than the market, where as Punjab National Bank has highest beta of **1.671752557** and it is more volatile than the market.

Standard deviation: In the above table it should be noted that, volatility of Investment is highest in case of Punjab National Bank with highest standard deviation of **18.87457791** and lowest in case of State Bank of India with Standard deviation of **9.043355861**.

Sharpe Ratio: Sharpe ratios of Union Bank of India, State Bank of India, Punjab National Bank and Canara Bank are negative because their returns are lower than risk free rate where as ICICI Bank has positive sharpe ratio as it has positive return and good for investment as per sharpe ratio.

In this sector ICICI bank is a good investment because it has exceeded the market index returns along with having low beta, low standard deviation and positive Sharpe ratio.

Apart from ICICI Bank, Investors can go for **State Bank of India** as it has good average returns and less standard deviation compared to rest other 3 banks.

CONCLUSION

An investor should make good analysis of stocks of the companies in which he or she wants to invest through different kinds of analysis one of them could be risk and return analysis.

REFERENCES

- [1]. Dinesh Tandon and Dr Nidhi walia (2015), A SECTOR WISE EMPIRICAL ANALYSIS OF RISK-RETURN RELATIONSHIP: IJMRR/July 2015/ Volume 5/Issue 7/Article No-10/588-593 Dinesh Tandon et. al., / International Journal of Management Research & Review.
- [2]. Shaini Naveen and T. Mallikarjunappa (2016), A STUDY ON COMPARATIVE ANALYSIS OF RISK AND RETURN WITH REFERENCE TO STOCKS OF CNX BANK NIFTY: International Journal of Scientific Research and Modern Education (IJSRME) ISSN (Online): 2455 – 5630 (www.rdmodernresearch.com) Volume I, Issue I, 2016.
- [3]. Dr. S Poornima and Swathiga P (2017) , A study on relationship between risk and return analysis of selected stocks on NSE using capital asset pricing model: International Journal of Applied Research 2017; 3(7): 375-378.
- [4]. Dr. NALLA BALA KALYAN and Dr. S. GAUTAMI (2018), A STUDY ON RISK & RETURN ANALYSIS OF THE SELECTED MUTUAL FUNDS SCHEMES IN INDIA : International Journal of Research in Social Sciences Vol. 8 Issue 5, May 2018, ISSN: 2249-2496
- [5]. Dr. N. K. Sathya Pal Sharma and RAVI KUMAR.R (2013), Analysis of Risk and Return Relationship of Equity Based Mutual fund in India.: International Journal of Advancements in Research & Technology, Volume 2, Issue 8, August-2013 28 ISSN 2278-7763.
- [6]. Gupta and Agarwal (2011), COMPARATIVE STUDY OF DISTRIBUTION OF INDIAN STOCK MARKET WITH OTHER ASIAN MARKETS: International Journal of Enterprise Computing and Business Systems Vol. 1 Issue 2 July 2011.
- [7]. Dr. M. Muthu Gopalakrishnan and Mr. Akarsh P K (2017) , Equity Analysis of Automobile Industry in Indian Stock Market : International Journal of Advance Research and Development (Volume2, Issue5).
- [8]. Banhi Guha, Avijan Dutta, and Gautam Bandyopadhyay (2016), Measurement of Risk Vs Return of Indian Sectoral Indices : Journal of Advanced Management Science Vol. 4, No. 2, March 2016.
- [9]. Ritesh Patel and Dharmesh Shah (2016) , Mergers and Acquisitions: A Pre- post Risk – Return Analysis for the Indian Banking Sector : Journal of Applied Finance & Banking, vol. 6, no. 3, 2016, 99-113ISSN: 1792-6580 (print version), 1792-6599 (online) Scienpress Ltd, 2016.
- [10]. P. Naveen and Mrs. K. Neeraja (2018), Risk and Return Analysis of Equity Shares in Banking Sector : International Journal of Engineering Technology Science and Research Volume 5, Issue 3 March 2018.
- [11]. Dr. R. Narayanasamy, and Ms. R. Thirugnanasoundari (2016), Risk and Return Analysis of Equity Shares with Special Reference it Companies (NSE) Stock Index : SSRG International Journal of Economics and Management Studies (SSRG – IJEMS) – Volume 3 Issue 1 Jan 2016.
- [12]. Dr.Prameela S. Shetty and Dr.Devaraj K (2017), Risk and Return Analysis of Pharmaceutical Industry : Volume 1, Issue 1 , September 2017, ISSN 2456 – 9151.
- [13]. Bedanta Bora & Anindita Adhikary (2015), Risk and Return Relationship -An Empirical Study of BSE Sensex Companies in India: Universal Journal of Accounting and Finance 3(2): 45-51, 2015.
- [14]. Narayan Gaonkar and Dr. Kushalappa S. (2015) , RISK RETURN ANALYSIS OF NSE LISTED STOCKS : PEZZOTTAITE JOURNALS Volume 4, Number 1, January – March' 2015.
- [15]. Ms. BabithaRohit and Dr. Prakash Pinto (2017), Risk Return Relationship of Selected Scrips in the Bombay Stock Exchange : Volume 2, Issue2, December 2017, ISSN 2456 – 9151.
- [16]. Abu T. Mollik and M. Khokan Bepari (2015), Risk Return Trade Offs in Emerging Markets: Australasian Accounting , Business and Finance Journal , volume 9 Issue 1