Risk and Return Analysis of Selected Stock Listed on Nifty Financial Services Index

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Abstract
 Before liberalization of Indian economy the main area of investment were bank deposits and physical assets such as gold, property and other forms of tangible assets but for the past few years we had been witnessing a lot of investment opportunities coming up in the form of primary and secondary market since the globalization which had its inception during 90's foreign capital flowing to India .New multinational entered the market. Due to high purchasing power of people investment in stock market is also grown up. Indian capital market is known for high volatility. In securities market higher the volatility higher will be the risk. In this research I have tried to find the risk associate with individual security along with their respective volatility and return during the research period.

Keywords : *Systematic Risk, Unsystematic Risk, Return, Nifty Financial Services Index, Investment*

I.   INTRODUCTION

 Indian capital market is known for high volatility. In securities market higher the volatility higher will be the risk. One cannot talk about investment in securities market without talking about

II. LITERATURE REVIEW

 In the area of risk and return analysis two well known economist made effort to study the relation between risk and return and they are the people who quantify the risk and return aspects of an instrument .they are Harry Markowitz and William Sharpe.Very broadly the investment process consists of two tasks.

- The first task is security analysis which focuses on assessing the risk and return characteristics of the available investment alternatives.
- The second task is portfolio selection which involves choosing the best possible portfolio from the set of feasible portfolio.

Portfolio theory, originally proposed by Harry Markowitz in the 1950's was the first formal attempt to quantify the risk of portfolio and develop a methodology for determining the optimal portfolio

risk factor involves in stock because investment decision involves a tradeoff between risk and return. An investor deploys his fund in any securities after analyzing the risk and expected return in that particular script. Risk is a probability that an investment's differ from actual return. Usually higher the risk higher will be return, lower the risk lower will be return.The research topic "risk and return analyses of selected stock listed on Nifty financial services Index" is relevant in this circumstance .I have been selected 10 companies which are belongs to financial services sector and also belongs to NIFTY FINANCIAL SERVICES INDEX. The scripts come under the research studies are HDFC bank, Bajaj finance, HDFC ltd, ICICI bank, Kotak Mahindra bank, LIC Housing finance ltd, Power finance corporation ltd, State bank of India, Rural Electrification corporation ltd, Sriram Transport Finance co. ltd etc.The objective behind the report is to understand the risk and return involve in 10 financial services sector listed on NIFTY and nifty financial services index.Research gives a direction along with backup of information to get success in right direction. The purpose is to understand the risk involved along with return in such stock before taking any decision to invest in the stock market.

Prior to the development of portfolio theory, investors dealt with the concept of return and risk somewhat loosely .Harry Markowitz was the first person to show quantitatively why and how diversification reduce risk. Harry Markowitz developed an approach that helps the investors to achieve his optimalPortfolio position .in this contest William Sharpe and others try to find out an answer for a question, what is the relationship between risk and return and they developed capital asset pricing theory. The study is mainly based on secondary data collected from Investing.com, NSE Website and Money Control.com and website of different companies.

III. OBJECTIVES OF STUDIES

1) To study the variation in the stock returns for the study period from 1st April 2016 to 31 march 2017.
2) To rank the companies on the basis of Actual Return, Abnormal Return and CAPM return.

3) To rank the companies on the basis of Systematic Risk and Unsystematic Risk.
4) To offer meaningful suggestions to the investors based on the findings of the study.

Hypothecs

Research is based on the assumption that stock price is inclusive of dividend paid by the companies during the research period i.e., 1st April 2016 to 31 march 2017 Risk free rate of security is 6.00% p.a (as per expected rate of government bond)

IV. RESEARCH METHODOLOGY

The study is purely based on secondary data collected from Investing.com, NSE Website and Money Control.com and websites of respective companies. The

Method of Sampling − Judgmental sampling involves the choice of subjects who are most advantageously placed or in the best position to provide the information required. The Judgmental sampling method is used for stockfrom NSE (NIFTY financial services Index) for the study.

V. DATA ANALYSIS

Standard deviation:-It measures the amount of variation from the average. A low standard deviation indicates that the data points tend to be very close to the mean (also called expected value); a high standard deviation indicates that the data points are spread out over a large range of values.
Formula:- standard deviation is calculated on excel based formula
Variance:-Variance is the square of standard deviation.
Formula:- variance is calculated as per excel formula.
Beta:-Beta refers to the change in return of individual security in response to unit change in the return of market index. Beta is a measure of systematic risk.

$$\text{Beta } (\beta) = (N*(\textstyle\sum X*Y) - (\textstyle\sum X*\textstyle\sum Y)) / (N*(\textstyle\sum X{\char`\^}2) - (\textstyle\sum X){\char`\^}2)$$

Where,N= number of items, Y= Return on securities (stock), X= Market return (Return of NSE financial services index)

Actual return:-Actual returns for each company have been computed for the study period as under

Total risk

Systematic Risk + Unsystematic Risk.

monthly share prices of 10 selected companies listed on NSE, which are used to compile niftyfinancial services index, are collected from 1st April 2016 to 31 March 2017. These data are used to calculate Actual return, CAPM return and abnormal return of each of the companies.

Sample Size − The sample size for the number of stocks is taken as 10 out of 15 listed financial services company in NSE financial services Index for analysis of stocks as very exhaustive and requires detailed study.

Data Collection Method −The sample of the stocks for the purpose of collecting secondary data has been selected on the basis of Random Sampling

$$Ri = P1\text{-}P0 / P0 *100$$

Where;Ri = Return on Individual securities, P1= closing price of individual security, P0 = opening price of individual security
Actual Return on Market (Return on Index):-

$$Rm = P1\text{-}P0 / P0 *100$$

Where;Rm = Return of index, P1= closing price of index, P0 = opening price of index

C.A.P.M. Return:-CAPM return is calculated by applying the following formulae:

$$Ri = Rf + Beta\ (\ Rm\text{-}Rf)$$

Where;Ri = Return on Individual securities, Rf = Return on risk free security (government bond), Rm = Return on market, Beta = beta value of individual security
*Systematic risk:*Systematic risk is calculated on the basis of following formula:-

$$\beta{\char`\^}2 * \sigma{\char`\^}2m$$

Unsystematic risk:Unsystematic risk is calculated on the basis of following formula:-

$$\sigma{\char`\^}2i - \beta{\char`\^}2 * * \sigma{\char`\^}2m$$

HDFC Bank Ltd.

DATE	P1	P0	Ri (Y)	M1	M0	Mi (X)	X*Y	x^2
17-Mar	1,445.70	1,394.00	3.708751793	8,771.35	8,313.10	5.51	20.4440643	30.38637812
17-Feb	1,390.10	1,286.20	8.0780594	8,286.90	7,920.95	4.62	37.32084961	21.34464614
17-Jan	1,286.65	1,209.45	6.383066683	7,917.45	7,442.40	6.38	40.74325255	40.74296482
16-Dec	1,206.20	1,202.30	0.324378275	7,407.05	7,618.95	-2.78	-0.902168363	7.735202123
16-Nov	1,199.60	1,256.00	-4.49044586	7,591.45	8,069.05	-5.92	26.57855563	35.03352385
16-Oct	1,253.30	1,281.00	-2.162373146	8,043.30	7,995.05	0.60	-1.304988765	0.364210336
16-Sep	1,272.85	1,288.00	-1.176242236	7,952.80	8,150.60	-2.43	2.854522542	5.889432033
16-Aug	1,291.20	1,249.00	3.378702962	8,139.20	7,833.20	3.91	13.1987324	15.26034747
16-Jul	1,246.20	1,180.00	5.610169492	7,837.75	7,344.40	6.72	37.68554434	45.12296418
16-Jun	1,176.45	1,182.95	-0.549473773	7,320.65	7,217.00	1.44	-0.789150015	2.062648391
16-May	1,181.90	1,127.75	4.801596098	7,193.25	6,672.75	7.80	37.4542845	60.84596171
16-Apr	1,132.35	1,068.80	5.945920659	6,724.70	6,560.75	2.50	14.85857093	6.244761606
SUM	15,082.50	14,725.45	29.85211035			28.35	228.1420697	271.0330408
		STOCK	INDEX					
	β	0.772		SYSTEMATIC RISK	11.06	CAPM Return	0.06+0.772(28.35-6) = 18.60	
	σ	3.97		Unsystematic RISK	4.71			
	variance	15.77	18.55	Total Risk	15.77		Abnormal Return	11.25

Standard deviation of the stock is 3.97 where as the beta value is 0.772.it shows that diversification of this stock would help the investor to eliminate considerable part of risk associated with this stock.The stock has systematic risk is 11.6 and unsystematic risk is 4.71. it means there is a huge difference between systematic and unsystematic risk here virtually no systematic risk associated with this stock when we camper 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 company is earning 11.25% abnormal profit of 29.85% as compare to 18.60% C.A.P.M return. The above table revels that the average stock return is well above the market return.

Housing Development and Coprotation Ltd

DATE	P1	P0	Ri (Y)	M1	M0	X	X*Y	X^2
17-Mar	1,508.40	1,373.50	9.82	8,771.35	8,313.10	5.51	54.1405614	30.38637812
17-Feb	1,370.05	1,370.00	0.00	8,286.90	7,920.95	4.62	0.016861411	21.34464614
17-Jan	1,365.85	1,272.00	7.38	7,917.45	7,442.40	6.38	47.09485674	40.74296482
16-Dec	1,262.60	1,268.40	-0.46	7,407.05	7,618.95	-2.78	1.271767122	7.735202123
16-Nov	1,263.10	1,382.60	-8.64	7,591.45	8,069.05	-5.92	51.15796545	35.03352385
16-Oct	1,377.50	1,401.00	-1.68	8,043.30	7,995.05	0.60	-1.01229213	0.364210336
16-Sep	1,393.45	1,412.00	-1.31	7,952.80	8,150.60	-2.43	3.188202693	5.889432033
16-Aug	1,405.45	1,385.00	1.48	8,139.20	7,833.20	3.91	5.76800662	15.26034747
16-Jul	1,374.50	1,385.00	-0.76	7,837.75	7,344.40	6.72	-5.092585584	45.12296418
16-Jun	1,253.60	1,385.00	-9.49	7,320.65	7,217.00	1.44	-13.62568024	2.062648391
16-May	1,237.70	1,385.00	-10.64	7,193.25	6,672.75	7.80	-82.960021	60.84596171
16-Apr	1,088.45	1,385.00	-21.41	6,724.70	6,560.75	2.50	-53.50644373	6.244761606
			-35.70			28.35	6.44	271.03
		STOCK	INDEX				Rf Return	0.006
	β	1.467		SYSTEMATIC RISK	39.92		CAPM Return	32.79538488
	σ	8.47		Unsystematic RISK	31.76		Abnormal Return	-68.50
	variance	71.68	18.55	Total Risk	71.68			

Standard deviation of the stock is 8.47 where as the beta value is 1.467, and the stock has systematic risk is 39.2 and unsystematic risk is 31.76. Since the beta is more than 1 it shows that the high volatility of the price of the stock in comparison with market returns. During 1 year of research period the company

is earning (-35.70%) net loss as compare to 28.35% market return. Since stock beta value is more than 1 (1.467) so CAPM expected return rise to 32.80%. Due to high volatility of stock, stock price will change more frequently as compare to market. This is why company is having abnormal loss of -68.50%. So due to high risk and negative return as compare to market and CAPM an investor should go with another investment option.

ICICI Bank

DATE	P1	PO	RI (Y)	M1	MO	X		X*Y	X^2
17-Mar	282.25	277.65	1.656762111	8,771.35	8,313.10	5.51		9.132709064	30.38637812
17-Feb	276.35	265.85	3.949595637	8,286.90	7,920.95	4.62		18.24723705	21.34464614
17-Jan	268.95	256.3	4.935622318	7,917.45	7,442.40	6.38		31.50418389	40.74296482
16-Dec	255.3	266.25	-4.112676056	7,407.05	7,618.95	-2.78		11.43826979	7.735202123
16-Nov	265.55	279.45	-4.974056182	7,591.45	8,069.05	-5.92		29.44100275	35.03352385
16-Oct	277.05	251	10.37848606	8,043.30	7,995.05	0.60		6.263399881	0.364210336
16-Sep	252.15	258.75	-2.550724528	7,952.80	8,150.60	-2.43		6.190137331	5.889432033
16-Aug	258	255.9	0.82063306	8,139.20	7,833.20	3.91		3.205761583	15.26034747
16-Jul	262.9	241.7	8.771203972	7,837.75	7,344.40	6.72		58.91936005	45.12296418
16-Jun	240.55	243.9	-1.373513735	7,320.65	7,217.00	1.44		-1.972629883	2.062648391
16-May	244.65	227.3	7.63308403	7,193.25	6,672.75	7.80		59.54097243	60.84596171
16-Apr	236.95	236	0.402542373	6,724.70	6,560.75	2.50		1.005934109	6.244761606
			25.53695894			28.35		232.92	271.03
		STOCK	INDEX					Rf Return	0.006
	β	0.846		SYSTEM ATIC RISK	13.28			CAPM Return	18.91521582
	σ	5.06		Unsyste matic RISK	12.37			Abnormal Return	6.62
	variance	25.65	18.55	Total Risk	25.65				

Standard deviation of the stock is 5.06 where as the beta value is 0.846.stoch has variance (Total Risk) of 25.65 out of which 13.28 is systematic risk which can be diversified and unsystematic risk is 12.37.Since beta value is less than 1 so stock less volatile than market.

The stock price has comparative lower return of 25.54% as compare to market return of 28.35%. Stock is earning return is higher than CAPM return i.e., 25.54% as compare to 18.92% of CAPM. This shows that company is enjoying 6.62% abnormal profit.

Kotak Mahindra Bank

DATE	P1	PO	Y	M1	MO	Mi (X)	X*Y	X^2
17-Mar	865.1	804.25	7.566055	8,771.35	8,313.10	5.51	41.707	30.38638
17-Feb	802.1	777.5	3.163987	8,286.90	7,920.95	4.62	14.6177	21.34465
17-Jan	774.15	720	7.520833	7,917.45	7,442.40	6.38	48.00564	40.74296
16-Dec	719.7	755	-4.6755	7,407.05	7,618.95	-2.78	13.0036	7.735202
16-Nov	755.45	819.9	-7.86071	7,591.45	8,069.05	-5.92	46.52688	35.03352
16-Oct	819.65	788.95	3.891248	8,043.30	7,995.05	0.60	2.348362	0.36421
16-Sep	777	813	-4.42804	7,952.80	8,150.60	-2.43	10.74605	5.889432
16-Aug	806.9	766	5.339426	8,139.20	7,833.20	3.91	20.8582	15.26035
16-Jul	763.5	764	-0.06545	7,837.75	7,344.40	6.72	-0.43962	45.12296
16-Jun	763.35	749.75	1.813938	7,320.65	7,217.00	1.44	2.605164	2.062648
16-May	746.55	714.2	4.529544	7,193.25	6,672.75	7.80	35.33217	60.84596
16-Apr	717.15	682	5.153959	6,724.70	6,560.75	2.50	12.8795	6.244762
			21.94929			28.35	248.19	271.03
		STOCK	INDEX					
	β	1.07		SYSTEM ATIC RISK	21.24		Rf Return	0.006
	σ	5.05		Unsyste matic RISK	4.30		CAPM Ret	23.92191
	variance	25.54	18.55	Total Risk	25.54		Abnorma l Return	-1.97

Standard deviation of the stock is 5.05 where as the beta value is 1.07.Beta of higher than 1% shows stock is more volatile than market. 1% change in market can bring more than 7% change (positive or negative as the case may be). In above table market stock performance is almost lower of 7% (21.95) from market (Index)

return of 28.35%.The above data shows stock return (21.95%) is lower than market return (28.35%). Above observation also shows due to high rate of beta value there is high rate of expected CAPM return of 23.92% that cause to abnormal loss of -1.97% to stock holders.

LIC Housing Finance Ltd

17-Feb	560.8	557	0.682226	8,286.90	7,920.95	4.62	3.151903	21.34465	
17-Jan	553.55	560.2	-1.18708	7,917.45	7,442.40	6.38	-7.57713	40.74296	
16-Dec	559.7	567.1	-1.30488	7,407.05	7,618.95	-2.78	3.629175	7.735202	
16-Nov	564.4	586	-3.68601	7,591.45	8,069.05	-5.92	21.81715	35.03352	
16-Oct	588.4	585	0.581197	8,043.30	7,995.05	0.60	0.350751	0.36421	
16-Sep	578.8	573	1.012216	7,952.80	8,150.60	-2.43	-2.45646	5.889432	
16-Aug	573.05	522.05	9.769179	8,139.20	7,833.20	3.91	38.1628	15.26035	
16-Jul	520	495.05	5.039895	7,837.75	7,344.40	6.72	33.8548	45.12296	
16-Jun	495	470.3	5.251967	7,320.65	7,217.00	1.44	7.542834	2.062648	
16-May	470.75	459.4	2.470614	7,193.25	6,672.75	7.80	19.27173	60.84596	
16-Apr	462.3	489.2	-5.49877	6,724.70	6,560.75	2.50	-13.7412	6.244762	
			23.88668			28.35	163.30	271.03	
		STOCK	INDEX						
β		0.52		SYSTEMATIC RISK	5.02		Rf Return	0.006	
σ		4.97		Unsystematic RISK	19.66		CAPM Ret	11.62869	
variance		24.68	18.55	Total Risk	24.68		Abnormal Return	12.26	

Standard deviation of the stock is 4.97 where as the beta value is 0.52. Stock has systematic risk is about 5.02% and unsystematic risk is about 19.66%. Stock has high unsystematic risk. However this risk can be reduced through diversification of portfolio. Lower beta indicates the lower volatility than market. Stock one year earning is 23.89% as compare to 28.35%. Since stock price is less volatile (β=0.52) so expected CAPM return of stock is 11.63%. Here stock is earning 12.26% abnormal profit. An investor must take diversified investment portfolio decision due to high unsystematic risk of stock.

Powergred Finance Corporation ltd

DATE	P1	PO	Y	M1	M0	X	X*Y	X^2	
17-Mar	144.85	136.6	6.039531	8,771.35	8,313.10	5.51	33.29222	30.38638	
17-Feb	136	130.9	3.896104	8,286.90	7,920.95	4.62	18.0001	21.34465	
17-Jan	130.15	122.95	5.856039	7,917.45	7,442.40	6.38	37.37922	40.74296	
16-Dec	121.95	134.6	-9.39822	7,407.05	7,618.95	-2.78	26.13854	7.735202	
16-Nov	134.2	124.6	7.704655	7,591.45	8,069.05	-5.92	-45.6032	35.03352	
16-Oct	124.5	120.5	3.319502	8,043.30	7,995.05	0.60	2.003314	0.36421	
16-Sep	120.3	124.25	-3.17907	7,952.80	8,150.60	-2.43	7.715026	5.889432	
16-Aug	123.7	109.4	13.0713	8,139.20	7,833.20	3.91	51.06237	15.26035	
16-Jul	109.03	86	26.77907	7,837.75	7,344.40	6.72	179.8847	45.12296	
16-Jun	84.7	82.2	3.041363	7,320.65	7,217.00	1.44	4.367982	2.062648	
16-May	81.85	88.2	-7.19955	7,193.25	6,672.75	7.80	-56.1592	60.84596	
16-Apr	89.67	85.5	4.877193	6,724.70	6,560.75	2.50	12.18787	6.244762	
			54.80792			28.35	270.27	271.033	
		STOCK	INDEX						
β		0.69		SYSTEMATIC RISK	8.83		Rf Return	0.006	
σ		9.43		Unsystematic RISK	80.01		CAPM R	15.4284	
variance		88.84	18.55	Total Risk	88.84		Abnormal Return	39.38	

Standard deviation of the stock is 9.43 where as the beta value is 0.69. Stock has systematic risk is about 8.83% and unsystematic risk is about 80.84%. Above calculation clearly states that Stock has high level of unsystematic risk. However this risk can be reduced through diversification of portfolio. Lower beta indicates the lower volatility of stock than market. Stock one year earning is 54.80% as compare to 28.35%. That mean stock has very strong return irrespective of high unsystematic risk. Since stock price is less volatile (β=0.69) so expected CAPM return of stock is only 15.43%. Here stock is earning 39.38% abnormal profit. However before taking investment decision an investor must consider the high rate of variance i.e. 88.84.

Rural Electrification Corporation Ltd.

DATE	P1	PO	Y	M1	M0	X	X*Y	X^2
17-Mar	181.65	152.85	18.842	8,771.35	8,313.10	5.51	103.8644	30.38638
17-Feb	152.65	142.55	7.085233	8,286.90	7,920.95	4.62	32.73397	21.34465
17-Jan	142.15	124.85	13.85663	7,917.45	7,442.40	6.38	88.44716	40.74296
16-Dec	124.85	138.5	-9.8556	7,407.05	7,618.95	-2.78	27.41061	7.735202
16-Nov	136.9	134.95	1.44498	7,591.45	8,069.05	-5.92	-8.55271	35.03352
16-Oct	134.9	121.6	10.9375	8,043.30	7,995.05	0.60	6.600764	0.36421
16-Sep	120.3	119.25	0.880503	7,952.80	8,150.60	-2.43	-2.13682	5.889432
16-Aug	119.17	107	11.37383	8,139.20	7,833.20	3.91	44.4313	15.26035
16-Jul	106.1	87.22	21.64641	7,837.75	7,344.40	6.72	145.4068	45.12296
16-Jun	86.72	81.05	6.995682	7,320.65	7,217.00	1.44	10.04714	2.062648
16-May	80.05	88.2	-9.24036	7,193.25	6,672.75	7.80	-72.0784	60.84596
16-Apr	89.2	83.25	7.147147	6,724.70	6,560.75	2.50	17.86038	6.244762
			81.11396			28.35	394.03	271.03
		STOCK	INDEX					
β		0.992		SYSTEMATIC RISK	18.25		Rf Return	0.006
σ		9.78		Unsystematic RISK	77.37		CAPM R	22.1785
variance		95.63	18.55	Total Risk	95.63		Abnormal Return	58.94

Standard deviation of the Rural Electrification Corporation Ltd. stock is 9.78 where as the beta value is 0.992. Stock has systematic risk is about 18.25% and unsystematic risk is about 77.37%. Above calculation clearly states that Stock has high level of unsystematic risk. However this risk can be reduced through diversification of portfolio. Lower beta indicates the lower volatility of stock than market. Stock one year earning is 81.11% as compare to 28.35%. The expected CAPM return of stock is only 22.18%. Here stock is earning 58.94% abnormal profit. However before taking investment decision an investor must consider the high rate of variance i.e. 88.84. The high variance is due to negative return in the month of May 2016 and December 2016. That mean stock has very strong return irrespective of high systematic and unsystematic risk.

Shriram Transport Finance Co. Ltd.

DATE	P1	P0	Y	M1	MO	X	X*Y	X^2
17-Mar	1,061.75	930.15	14.14826	8,771.35	8,313.10	5.51	77.99062	30.38638
17-Feb	929.2	948.7	-2.05544	8,286.90	7,920.95	4.62	-9.49621	21.34465
17-Jan	954.75	856.65	11.45158	7,917.45	7,442.40	6.38	73.09571	40.74296
16-Dec	853.45	907	-5.90408	7,407.05	7,618.95	-2.78	16.42056	7.735202
16-Nov	904.45	1,081.25	-16.3514	7,591.45	8,069.05	-5.92	96.78277	35.03352
16-Oct	1,085.45	1,173.70	-7.51896	8,043.30	7,995.05	0.60	-4.53768	0.36421
16-Sep	1,162.65	1,235.15	-5.86973	7,952.80	8,150.60	-2.43	14.24476	5.889432
16-Aug	1,237.05	1,281.00	-3.43091	8,139.20	7,833.20	3.91	-13.4027	15.26035
16-Jul	1,280.20	1,214.70	5.392278	7,837.75	7,344.40	6.72	36.22189	45.12296
16-Jun	1,203.90	1,180.50	1.982211	7,320.65	7,217.00	1.44	2.846836	2.062648
16-May	1,180.40	962.9	22.58802	7,193.25	6,672.75	7.80	176.1952	60.84596
16-Apr	942.85	955.1	-1.28259	6,724.70	6,560.75	2.50	-3.20513	6.244762
			13.14918			28.35	463.16	271.03
		STOCK	INDEX					
	β	2.12		SYSTEMATIC RISK	83.37		Rf Return	0.006
	σ	10.75		Unsystematic RISK	32.17		CAPM R	47.3908
	variance	115.54	18.55	Total Risk	115.54		Abnormal Return	-34.24

Standard deviation of the stock is 10.75 where as the beta value is 2.12. Above table show stock is very volatile as it producesfrom August 2016 to December 2016 negative return and again positive return in May, June and July 2016. The stock has systematic risk is 83.37 and unsystematic risk is 32.17. it means there is a huge difference between systematic and unsystematic risk here virtually no systematic risk associated with this stock when we camper it with the total risk. Here the beta is more than 1 it shows that the high volatility of the price of the stock in comparison with market returns. The stock has poor performance as compare to index return of 28.35% and return of other company. The expected CAPM return is 47.34% but stock is able to generate only 13.15.Due to high risk and negative return as compare to market and CAPM an investor should go with another investment option.

State Bank Of India

DATE	P1	P0	Y	M1	MO	X	X*Y	X^2
17-Mar	291.1	270	7.814815	8,771.35	8,313.10	5.51	43.07826	30.38638
17-Feb	269.2	262	2.748092	8,286.90	7,920.95	4.62	12.69626	21.34465
17-Jan	260.35	252.5	3.108911	7,917.45	7,442.40	6.38	19.84425	40.74296
16-Dec	250.2	259.65	-3.63951	7,407.05	7,618.95	-2.78	10.1223	7.735202
16-Nov	258.35	257	0.525292	7,591.45	8,069.05	-5.92	-3.10916	35.03352
16-Oct	257.6	253	1.818182	8,043.30	7,995.05	0.60	1.09727	0.36421
16-Sep	251.25	251.95	-0.27783	7,952.80	8,150.60	-2.43	0.674249	5.889432
16-Aug	252.5	230.8	9.40208	8,139.20	7,833.20	3.91	36.72875	15.26035
16-Jul	229.4	220.8	3.894928	7,837.75	7,344.40	6.72	26.16364	45.12296
16-Jun	218.8	205.95	6.239378	7,320.65	7,217.00	1.44	8.960947	2.062648
16-May	204.95	187.6	9.248401	7,193.25	6,672.75	7.80	72.14106	60.84596
16-Apr	189	193.7	-2.42643	6,724.70	6,560.75	2.50	-6.06354	6.244762
			38.4563			28.35	222.33	271.03
		STOCK	INDEX					
β		0.644		SYSTEMATIC RISK	7.69		Rf Return	0.006
σ		4.33		Unsystematic RISK	11.02		CAPM Re	14.4002
	variance	18.72	18.55	Total Risk	18.72		Abnormal Return	24.06

Standard deviation of the stock is 4.33 where as the beta value is 0.644. Stock has systematic risk is about 7.69% and unsystematic risk is about 11.02%. Stock has high unsystematic risk. However this risk can be reduced through diversification of portfolio. Lower beta indicates the lower volatility than market. Stock one year earning is 38.45% as compare to 28.35%.

Since stock price is less volatile (β=0.644) so expected CAPM return of stock is 14.40%. Here stock is earning 14.40% abnormal profit. Lower systematic and unsystematic risk and high rate of return makes stock as a strong participant in portfolio of investor.

Sundaram Finance Ltd.

DATE	P1	P0	Y	M1	MO	X	X*Y	X^2
17-Mar	1,614.45	1,449.95	11.35	8,771.35	8,313.10	5.51	62.5392	30.38638
17-Feb	1,439.95	1,369.00	5.18	8,286.90	7,920.95	4.62	23.94382	21.34465
17-Jan	1,375.30	1,152.00	19.38	7,917.45	7,442.40	6.38	123.7265	40.74296
16-Dec	1,150.30	1,255.00	-8.34	7,407.05	7,618.95	-2.78	23.20271	7.735202
16-Nov	1,277.60	1,445.90	-11.64	7,591.45	8,069.05	-5.92	68.89501	35.03352
16-Oct	1,400.20	1,335.00	4.88	8,043.30	7,995.05	0.60	2.947423	0.36421
16-Sep	1,329.60	1,446.70	-8.09	7,952.80	8,150.60	-2.43	19.64333	5.889432
16-Aug	1,454.75	1,482.60	-1.88	8,139.20	7,833.20	3.91	-7.3381	15.26035
16-Jul	1,491.80	1,524.00	-2.11	7,837.75	7,344.40	6.72	-14.1929	45.12296
16-Jun	1,523.90	1,410.00	8.08	7,320.65	7,217.00	1.44	11.60158	2.062648
16-May	1,389.40	1,260.00	10.27	7,193.25	6,672.75	7.80	80.10869	60.84596
16-Apr	1,279.15	1,301.00	-1.68	6,724.70	6,560.75	2.50	-4.19693	6.244762
			25.40			28.35	390.88	271.03
		STOCK	INDEX					
β		1.622		SYSTEMATIC RISK	48.80		Rf Return	0.006
σ		9.31		Unsystematic RISK	37.88		CAPM Re	36.2598
	variance	86.69	18.55	Total Risk	86.69		Abnormal Return	-10.86

Standard deviation of the stock is 9.31 where as the beta value is 1.62. Above table show stock is very volatile as it produces its return as -, +, +,-,-,-, +,-,-, +, +, + from April 2016 to March2017. The stock has systematic risk is 48.80 and unsystematic risk is 37.88. it means there is a huge difference between systematic and unsystematic risk here virtually no systematic risk associated with this stock when we camper it with the total risk. Here the beta is more than 1 it shows that the high volatility of the price of the stock in comparison

with market returns. The stock has poor performance (25.40%) as compare to index return of 28.35% and return of other company. However unsystematic can be reduced through diversification of portfolio. Theexpected CAPM return is 36.26% but stock is able to generate only 25.40%. Stock has abnormal loss of (-10.86%). So due to high risk and negative return as compare to market and CAPM an investor should go with another investment option.

Table 01:- Rank of 10 Financial Services Companies Listed on NSE According to Actual Profit

S.NO.	STOCK NAME (COMPANY NAME)	ACTUAL RETURN	RANK
2	HDFC Bank Ltd.	29.85	4
3	Housing Development Finance Corporation Ltd.	(-35.70)	10
4	ICICI Bank Ltd.	25.34	6
5	Kotak Mahindra Bank Ltd.	21.95	8
6	LIC Housing Finance Ltd.	23.89	7
7	Power Finance Corporation Ltd.	54.80	2
8	**Rural Electrification Corporation Ltd.**	**81.11**	**1**
9	Shriram Transport Finance Co. Ltd.	13.15	9
10	State Bank of India	38.45	3
11	Sundaram Finance Ltd	25.40	5

As per Table 01 Rural Electrification Corporation Ltd. has the highest actual return. Power Finance Corporation Ltd. ranked second and State bank of India third and HDFC bank ltd. ranked fourth in term of actual return.Housing Development Finance Corporation Ltd, Shriram Transport Finance Co. Ltd. and kotak Mahindra bank ltd have the least actual return respectively

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Table 02:- Rank of 11 Financial Services Companies Listed on NSE according to CAPM and Abnormal Profit

S.NO.	STOCK NAME	CAPM RETURN	RANK	ABNORMAL RETURN	RANK
2	HDFC Bank Ltd.	18.60	7	11.25	5
3	H.D.F.C Ltd.	32.8	3	(-68.50)	10
4	ICICI Bank Ltd.	18.91	6	6.62	6
5	Kotak Mahindra Bank Ltd.	29.92	4	(-1.97)	7
6	LIC Housing Finance Ltd.	11.62	10	12.26	4
7	P.F.C Ltd.	15.43	8	39.38	2
8	**R.E.C. Ltd.**	**22.18**	**5**	**58.94**	**1**
9	ShriramTpt. Fin. Co. Ltd.	47.39	1	(-34.24)	9
10	State Bank of India	14.4	10	24.06	3
11	Sundaram Finance Ltd	36.26	2	(-10.86)	8

As per Table 02 Shriram Transport Finance Co. Ltd.has the highest CAPM return. Sundaram Finance Ltd ranked second and Housing Development Finance Corporation Ltd. third and Kotak Mahindra Bank Ltd ranked fourth in term of CAPM return.Housing Development Finance Corporation Ltd.,Shriram Transport Finance Co. Ltd. and kotak Mahindra bank ltd have the least actual return respectively.The HCL Tech have high expected return on same time it have

very less CAPM return because of high risk involved in the stock.Rural Electrification Corporation Ltd. has the highest actual as well as abnormal return. Power Finance Corporation Ltd. ranked second and State bank of India third and HDFC bank ltd. ranked fourth in term of actual return as well as abnormal return ranking.

Table 3: Rank of 10 Financial Services Companies Listed on NSE According to Systematic and UnsystematicRisk

S.NO.	STOCK NAME	Systematic Risk	RANK	Unsystematic Risk	RANK
2	HDFC Bank Ltd.	11.06	4	4.76	2
3	Housing Development Finance Corporation Ltd.	39.92	8	31.76	6
4	ICICI Bank Ltd.	13.28	5	12.37	4
5	Kotak Mahindra Bank Ltd.	21.24	7	**4.30**	**1**
6	**LIC Housing Finance Ltd.**	**5.02**	**1**	19.66	5
7	Power Finance Corporation Ltd.	8.83	3	80.01	10
8	Rural Electrification Corporation Ltd.	18.25	6	77.37	9
9	Shriram Transport Finance Co. Ltd.	83.37	10	32.17	7
10	State Bank of India	7.69	2	11.02	3
11	Sundaram Finance Ltd	48.80	9	37.88	8

Table 03clearly shows that LIC Housing Finance Ltd. has the least systematic risk, followed by State Bank of India, Power Finance Corporation Ltd.andICICI Bank Ltd respectively. The systematic risk of Shriram Transport Finance Co. Ltd. is the highest. The systematic risk of Sundaram Finance Ltd Shriram Transport Finance Co. Ltd., Housing Development Finance Corporation Ltd. and Kotak Mahindra Bank Ltd. is more when compared to other companies.Rural Electrification Corporation Ltd is on number 6 in this list which was on top in term of actual and abnormal return.Unsystematic risk of Kotak Mahindra Bank Ltd. is the least. Companies like HDFC Bank State Bank of India and ICICI Bank Ltd. are also having least unsystematic risk. Power Finance Corporation Ltd has the highest unsystematic risk. However the state bank has both systematic and unsystematic risk is lower as compare to other stock

Table RJF04:- Rank of 10 Financial Services Companies Listed on NSE According to Total Risk

S.NO.	STOCK NAME (COMPANY NAME)	TOTAL RISK	RANK
2	HDFC Bank Ltd.	4.76	2
3	Housing Development Finance Corporation Ltd.	31.76	6
4	ICICI Bank Ltd.	12.37	4
5	**Kotak Mahindra Bank Ltd.**	**4.3**	**1**
6	LIC Housing Finance Ltd.	19.66	5
7	Power Finance Corporation Ltd.	80.01	10
8	Rural Electrification Corporation Ltd.	77.37	9
9	Shriram Transport Finance Co. Ltd.	32.17	7
10	State Bank of India	11.02	3
11	Sundaram Finance Ltd	37.88	8

Table 04Total risk of Kotak Mahindra Bank Ltd. is the least as it has lowest systematic as well as unsystematic risk. Companies like HDFC Bank State Bank of India and ICICI Bank Ltd. are also having least unsystematic risk. Power Finance Corporation Ltd has the highest total risk due to high unsystematic risk. The total risk of Rural Electrification Corporation Ltd and Sundaram Finance Ltd, Shriram Transport Finance Co. Ltd. and Housing Development Finance Corporation Ltd. is also more. The state bank has both systematic and unsystematic risk is lower as compare to other stock.

highest risk and vice versa. An investor who is ready to bear high risk but expect high return will go such stocks where risk and returns are high. Whereas an investor with less risk bearing capacity will go for those stocks

VI. CONCLUSION

The research study put the investors in a position to analyze the various investment options (stock listed on Nse Financial Services Index only) available to him / her on the basis of various measure of risk and return such as beta, standard deviation, systematic risk and unsystematic risk and thus minimizes the risk and maximizes the returns.The research study shows the stock having highest return also have

with low beta value where the risk and return are low.Among the stocks under study Rural Electrification Corporation Ltd has the highest actual returns and abnormal returns and therefore better for those

investors whose objective of investment is to maximize the returns.A risk adverse investor can prefer Kotak Mahindra Bank Ltd stocks as it has the lowest risk compared to all other stocks under study.A risk adverse investor can also prefer H.D.F.C. Bank Ltd stocks as it has the low total risk compared to all other stocks under study.

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