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Portfolio Management And Investment Decision With Reference To Jmarathon Advisory Services Pvt Ltd., Hyderabad

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ABSTRACT:
The present study examines the Risk & Return Analysis of Selected Stocks in JMarathon advisory services. Portfolio construction has become important to diversify the risk. Risk is known to be probability of occurrence of loss or less return. Investors choose better portfolio to gain more return. So, it has become important to evaluate the historical performance of the stocks in terms of risk and return to project the future risk and return. In Portfolio Management one has to follow certain steps in choosing the right portfolio in order to get effective returns and by managing all the risks. The paper has chosen a sample of top 30 securities belonging to different sectors based upon the market capitalisation like Banking, Financial services, Telecommunication service, Cement and construction, oil and gas refineries, IT, Pharma etc. At first, analysing of selected securities individual return and thereby arriving at the overall portfolio return. It also covers the various techniques for evaluation and selecting the best portfolio for optimistic and pessimistic investors. The purpose of evaluation is to know, how Portfolio Management has to be done in arriving at the effective portfolio and at the same time make aware to the investors to choose the right security based on the risk and return.

Keywords: Portfolio Management, Investment decisions, Risk and Return.

INTRODUCTION

This paper deals with Portfolio Evaluation and different investment decisions based on the investors risk appetite byconsidering top 30 companies by their market capitalization. This paper also shows different ways of analysis of the securities using; risk and return analysis, modern risk adjusted techniques such as Sharpe's Treynor's and Jensen's Ratio and determining the optimal portfolio for the investor. This paper presents best investment plan to the individuals as per the ability to undertake the risk. This paper also provides the information of securities belonging to different sectors, and their performance for last five years.

REVIEW OF RELATED LITERATURE

Gary Brinson, L. Randolph Hood and Gilbert L. Beebower (1995) The main aim of this study is determining the historical data of U.S pension plan and analyze which investment decision yields the highest return. The authors for this purpose created a framework based upon the passive, benchmark portfolio, Data from 91 large U.S pension plans in the SEI large plan universe. SEIS have developed a quarterly data for complete 10-year period beginning from 1974 the analyses resulted the investment policy dominates investment strategy i.e... Market timing and security selection, the investment policy portfolio is compared with the actual returns which are resulting from the combination of investment policy and market timing.***S. R Nanda, B. Mahanty and M. K Tiwari (2010)***have attempted to use a data mining approach for classification of different stocks and are presented in the form of a cluster. Clustering approach is used to categorize the stock based on some investment criteria. The team collected stock returns of different times along with the valuation ratios from the stocks of Bombay Stock Exchange for the fiscal year 2007-2008.The Results of the Analysis proved that K means cluster analysis builds the most compact cluster as compared to other clustering methods which are SOM and Fuzzy c-means for classification of the stock. After analysis the stocks are selected from the clusters to build a portfolio, which minimizes portfolio risk and compare the returns with that of benchmark index i.e... Sensex.***Dr.I. Satyanarayana, N.B.C Sindhu and D. Maruthi (2015)***The main of this research is to maximize the returns and minimize the risk in the investment made by an Investor , for this purpose market prices of the company of different dates have been considered and thereby dividing the companies into mainly 5 sections. The Sources of the data include primary data and secondary data where primary data information is been collected from share khan by interviewing the

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executives working. From the analysis the combination of TCS and Wipro, the risk involved in TCS is less than Wipro, and from the combination of IDBI and Andhra Bank, the risk involved in Andhra Bank is less than IDBI Bank.***Noel Amenc, Philippe Malaise and Lionel Martellini (2004*)**provides guide to the investors which allow that investors to gain full access to Good tracking error, and also by maintaining the level of bad tracking error based on the optimal dynamic adjustments of fractions which are invested in a passive core vs. active satellite portfolio. The different method under this include Standard Static Core-Satellite Approach, The Arithmetic of Core -Satellite Portfolio Management which are the extensions of Constant Proportion Portfolio Insurance Techniques which are specially designed to ensure in respect of absolute performance in relative to return context.***Jensen, (1969).*** Quite similar to this was Treynor measure, which gave the freedom to interpret the relativity between rewards to risk factor. A high Treynor measure is preferred as compared to a smaller one.

NEED OF THE STUDY

Portfolio Evaluation can be used to select the best stock from the given combination of securities so as to make decision for investment. To evaluate the performance of the security, risk and returns of the securities are compared.Further to suggest the investors' to choose a portfolio with respect to their risk appetite.

OBJECTIVES OF THE STUDY

- To calculate the risk and return associated with 30 Top different securities of 8 different sectors.
- To analyze and rank the performance of the securities using absolute risk-adjusted measures like Sharpe's Ratio, Treynor's Ratio, and relative risk adjusted performance measure Jensen's Alpha.
- To determine the optimal portfolio, which gives the investors optimal return at minimum risk

SCOPE OF THE STUDY

The study covers the calculation of risk and return of Top 30 companies of 8 different sectors, for the period of five years by using average returns to calculate the expected returns, standard deviation to calculate the risk, correlation between securities and the market index that is Nifty 50, Beta to measure the volatility in comparison with the market index. This study includes absolute risk adjusted techniques to construct optimal portfolio for an investor such as Sharpe's, Treynor's, Jensen's Ratio. The study also determines the consistency of stock prices and also covers various companies shares of different sectors such as Banking and Financial services, Telecommunication service, Cement and Construction, Oil and gas, Refineries, Information Technology, Pharmaceutical, manufacturing, Financial Investments, Retail and real estate and constructing and contracting houses.

RESEARCH METHODOLOGY

The study is based on the secondary data, collected from various websites in order to achieve the respected objectives. Sample of top 30 companies whose market capitalization is more has chosen from different sectors for the study. The data has been analyzed for a period of five years i.e., from 2014 to 2019 The tools and techniques that are used for analyses include Beta, Standard deviation and absolute risk adjusted techniques such as Sharpe's, Treynor's and Jensen's Alpha. The study also checks the consistency of the stocks for different years based upon risk adjusted techniques, so as to determine the stock that is consistently performing well. The software used for analyzing the stock price includes Excel.

LIMITATIONS OF STUDY

- The study is purely based on secondary data which has been collected from websites like nseindia.com, Yahoo finance.com. The reliability of data depends on these sources.
- The analyses have been performed for duration of 5 years only.

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DATA ANALYSIS-1 RISK AND RETURN ANALYSIS

TABLE-1.1: FOR THE YEAR 2015

Companies	Returns	Risk	Beta	Correlation
ICICI	-2.82	3.87	0.39	0.28
AXIS	-2.30	4.77	1.22	0.70
ALLAHABAD	-4.35	7.24	0.86	0.32
BANK OF BORODA	-1.32	10.91	-0.07	-0.02
BHARATHI AIRTEL	-0.58	7.05	1.36	0.53
OLECTRA	2.87	12.48	2.33	0.51
ADC	2.08	10.42	-2.03	-0.53
INFRATEL	2.04	9.00	1.71	0.52
ACC	-1.13	4.80	1.10	0.63
AMBUJA	-1.68	5.30	1.56	0.81
ANJANI	13.03	30.92	7.17	0.63
KAKATIYA	3.70	12.59	3.10	0.67
ABAN	-6.15	7.47	1.64	0.60
DEEP	12.22	19.44	2.29	0.32
IOC	2.09	5.77	0.16	0.08
NAGARJUNA	3.19	19.24	-3.51	-0.50
CEREBRA	4.28	19.30	1.88	0.27
DLINK	0.93	10.17	2.20	0.59
3I INFOTECH	0.33	34.90	-0.58	-0.05
RS SOFTWARE	-3.41	8.33	1.90	0.62
AARTI	-4.39	16.30	3.64	0.61
ABOTT	4.16	8.44	0.22	0.07
BHARAT ELECT	-3.61	22.61	2.98	0.36
CENTUM	-0.21	13.82	4.11	0.81
TCI	0.35	9.49	1.60	0.46
BAJAJ	3.20	7.31	1.41	0.53
AJMERA	6.36	16.21	2.78	0.47
BRIGADE	-0.69	7.23	-0.05	-0.02
ALPINE	5.82	23.44	-2.11	-0.25
ANSAL	-0.49	11.35	1.80	0.43

INTERPRETATION

The above Table shows, Anjani Industry of cement sector yields the return of 13.03 and risk of 30.92 whereas Deep Industry of oil and gas sector is yielding the return of 12.22 and risk of 19.44 among these two stocks if the investor is optimistic, Anjani Industry is suitable for investment. Or else Deep Industry is suitable for pessimist investor.

TABLE-1.2: FOR THE YEAR 2016

companies 2016	Returns	Risk	Beta	correlation
ICICI	0.32	10.36	2.13	0.91
AXIS	0.38	8.78	1.66	0.84
ALLAHABAD	0.11	16.06	2.74	0.76
BANK OF BORODA	0.20	8.85	0.57	0.28
BHARATHI AIRTEL	-0.63	7.06	0.41	0.26
OLECTRA	3.28	10.52	0.42	0.18
ADC	-0.80	8.06	1.41	0.75

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INFRATEL	-1.46	8.13	0.61	0.32
ACC	0.08	7.10	1.49	0.89
AMBUJA	0.54	9.06	1.74	0.82
ANJANI	-0.74	15.98	3.08	0.82
KAKATIYA	7.94	27.83	4.78	0.73
ABAN	1.34	15.54	1.81	0.50
DEEP	4.51	12.96	1.66	0.55
IOC	-0.72	15.04	1.20	0.34
NAGARJUNA	3.32	21.84	0.43	0.08
CEREBRA	3.24	22.38	0.39	0.07
DLINK	-2.01	16.37	0.00	0.00
3I INFOTECH	2.07	13.16	1.11	0.37
RS SOFTWARE	1.33	23.88	1.68	0.31
AARTI	0.66	10.62	0.50	0.21
ABOTT	-1.89	5.08	0.47	0.41
BHARAT ELECT	0.39	8.77	1.31	0.66
CENTUM	0.08	10.36	0.73	0.31
TCI	-1.95	18.78	1.49	0.35
BAJAJ	3.82	11.52	1.50	0.58
AJMERA	-0.94	14.34	2.18	0.67
BRIGADE	0.15	7.14	1.19	0.74
ALPINE	0.92	18.70	1.02	0.24
ANSAL	-3.49	11.39	1.83	0.71

INTERPRETATION

The above Table shows Kakatiya Industry of cement sector yields the return of 7.94 and risk of 27.83 whereas Deep Industry of oil and gas sector is yielding the return of 4.51 and risk of 12.96 among these two stocks if the investor is optimistic, Kakatiya Industry is suitable for investment. Or else Deep Industry is suitable for pessimist investors.

TABLE-1.3: FOR THE YEAR 2017

Companies	Returns	Risk	Beta	Correlation
ICICI	1.53	6.80	0.18	0.65
AXIS	0.34	3.17	0.37	0.31
ALLAHABAD	1.90	9.57	0.11	0.57
BANK OF BORODA	2.12	9.73	0.00	0.63
BHARATHI AIRTEL	2.15	9.04	0.19	0.69
OLECTRA	-2.63	41.19	0.10	-0.18
ADC	1.13	6.09	-0.13	0.746
INFRATEL	0.85	8.79	0.15	0.320
ACC	1.49	6.50	0.33	0.89
AMBUJA	0.92	5.00	0.39	0.82
ANJANI	1.05	12.41	0.05	0.82
KAKATIYA	1.19	14.04	0.14	0.73
ABAN	0.06	7.61	0.20	0.50
DEEP	0.56	6.59	0.04	0.55
IOC	0.27	10.01	0.03	0.34
NAGARJUNA	1.66	12.72	-0.07	0.08

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CEREBRA	0.80	22.80	0.04	0.07
DLINK	0.26	11.01	0.15	0.00
3I INFOTECH	0.83	31.77	0.00	0.37
RS SOFTWARE	-0.46	11.72	0.19	0.31
AARTI	0.19	7.64	0.10	0.21
ABOTT	-0.62	8.14	0.02	0.41
BHARAT ELECT	0.32	27.07	0.04	0.66
CENTUM	-0.35	5.11	0.15	0.31
TCI	1.06	8.53	0.12	0.35
BAJAJ	1.06	9.68	0.18	0.32
AJMERA	1.61	11.96	0.07	0.39
BRIGADE	1.20	10.75	-0.01	0.32
ALPINE	0.40	8.22	-0.03	0.14
AANSAL	0.16	20.20	0.10	0.16

INTERPRETATION

The above table shows Bharathi Airtel of Telecommunication service yields the return of 2.15 and risk of 9.04 whereas Bank of Baroda of Banking sector is yielding the return of 2.12 and risk of 9.73 among these two stocks if the investor is optimistic, Bank of Baroda is suitable for investment. Or else Bharathi Airtel is suitable for pessimist investor.

TABLE-1.4: FOR THE YEAR 2018

Companies	Returns	Risk	Beta	Correlation
ICICI	1.58	9.37	0.99	0.50
AXIS	1.10	7.69	1.18	0.73
ALLAHABAD	-3.06	12.27	0.71	0.28
BANK OF BORODA	-1.03	16.70	1.71	0.49
BHARATHI AIRTEL	-4.01	7.20	0.72	0.48
OLECTRA	2.55	16.52	1.38	0.40
ADC	-0.14	11.92	0.44	0.18
INFRATEL	-3.01	3.62	-0.21	-0.28
ACC	-0.96	8.10	1.25	0.73
AMBUJA	-1.18	8.65	1.25	0.69
ANJANI	-4.73	8.41	1.34	0.76
KAKATIYA	-4.66	11.89	1.48	0.59
ABAN	-7.20	11.69	1.89	0.77
DEEP	-1.27	22.96	2.88	0.60
IOC	-6.52	15.53	1.27	0.39
NAGARJUNA	-12.53	12.57	-0.46	-0.17
CEREBRA	-0.69	20.79	1.84	0.42
DLINK	-3.56	13.00	1.66	0.61
3I INFOTECH	-5.96	9.00	-0.09	-0.05
RS SOFTWARE	-6.11	17.72	1.15	0.31
AARTI	-0.56	7.76	0.36	0.22
ABOTT	2.80	5.95	0.77	0.62
BHARAT ELECT	-5.24	10.82	0.46	0.20
CENTUM	-4.73	7.85	0.32	0.19
TCI	-2.89	17.59	2.75	0.74
BAJAJ	2.20	9.22	0.96	0.50

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AJMERA	-4.65	12.04	1.63	0.64
BRIGADE	-2.26	12.30	1.28	0.50
ALPINE	-3.73	12.92	2.14	0.79
ANSAL	-5.77	12.25	1.40	0.55

INTERPRETATION

The above table shows Abbott of Pharmaceutical sector yields the return of 2.80 and risk of 5.95 whereas Olectra of Telecommunication sector yielding the return of 2.55 and risk of 16.52 among these two stocks if the investor is optimistic, Olectra Industry is suitable for investment. Or else Abbott is suitable for pessimist investor.

TABLE-1.5: FOR THE YEAR 2019

Companies	Returns	Risk	Beta	Correlation
ICICI	2.67	5.47	1.42	0.90
AXIS	3.66	6.69	0.78	0.41
ALLAHABAD	1.13	9.07	0.97	0.37
BANK OF BORODA	1.64	13.38	3.05	0.79
BHARATHI AIRTEL	2.19	4.09	0.30	0.26
OLECTRA	-1.94	6.53	0.89	0.47
ADC	0.27	5.34	0.27	0.18
INFRATEL	0.43	8.46	0.55	0.23
ACC	0.73	7.37	1.91	0.90
AMBUJA	-0.68	6.21	1.37	0.76
ANJANI	4.06	12.58	1.36	0.37
KAKATIYA	-1.25	11.80	2.24	0.66
ABAN	-9.14	9.21	2.35	0.88
DEEP	1.99	14.64	3.49	0.83
IOC	1.63	5.85	1.36	0.81
NAGARJUNA	-11.33	14.32	1.23	0.30
CEREBRA	-1.91	5.25	0.20	0.13
DLINK	4.15	7.73	1.46	0.66
3I INFOTECH	-1.26	6.73	1.37	0.71
RS SOFTWARE	-6.78	8.01	1.77	0.77
AARTI	-1.26	5.50	1.01	0.64
ABOTT	2.36	6.49	-0.49	-0.26
BHARAT ELECT	3.49	11.77	1.71	0.51
CENTUM	6.36	11.36	1.28	0.39
TCI	-3.95	7.29	1.78	0.85
BAJAJ	3.00	6.49	1.09	0.58
AJMERA	0.04	10.40	2.20	0.73
BRIGADE	3.89	12.02	2.50	0.72
ALPINE	-2.65	9.08	0.81	0.31
ANSAL	-10.23	11.68	1.42	0.42

INTERPRETATION

The above Table shows Dlink of Information technology sector yields the return of 4.15 and risk of 7.73 whereas centum of Manufacturing sector is yielding the return of 6.36 and risk of 11.36 among these two stocks if the investor is optimistic, centum Industry is suitable for investment or else Dlink is suitable for pessimist investor.

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.ANALYSIS-2(PERFORMANCE MEASUREMENT BY USING RISK-ADJUSTED TECHNIQUES (SHARPE'S, TREYNOR'S AND JENSEN'S RATIO)

TABLE-1.1: FOR THE YEAR 2015

Companies 2015	Sharpe's Ratio	Ranks	Treynor's Ratio	Ranks	Jensen's Ratio	Ranks
ICICI	-2.70	30	-26.76	29	-7.12	24
AXIS	-2.08	29	-8.16	25	0.42	19
ALLAHABAD	-1.65	25	-13.94	27	-4.66	23
BANK OF BORODA	-0.82	20	128.23	2	-9.52	26
BHARATHI AIRTEL	-1.16	23	-6.02	23	3.39	17
OLECTRA	-0.38	9	-2.03	13	15.10	7
ADC	-0.53	12	2.73	4	-22.77	29
INFRATEL	-0.62	15	-3.26	16	8.98	11
ACC	-1.82	27	-7.92	24	0.65	18
AMBUJA	-1.75	26	-5.94	22	4.02	16
ANJANI	0.18	2	0.76	8	66.36	1
KAKATIYA	-0.31	8	-1.26	10	22.46	4
ABAN	-1.84	28	-8.42	26	0.15	20
DEEP	0.24	1	2.01	5	24.13	3
IOC	-0.96	21	-34.19	30	-4.15	22
NAGARJUNA	-0.23	7	1.26	6	-34.29	30
CEREBRA	-0.17	5	-1.77	11	12.64	9
DLINK	-0.66	16	-3.04	14	12.01	10
3I INFOTECH	-0.21	6	12.47	3	-12.25	27
RS SOFTWARE	-1.32	24	-5.81	21	5.11	15
AARTI	-0.74	18	-3.30	17	18.92	6
ABOTT	-0.41	10	-15.97	28	-1.61	21
BHARAT ELECT	-0.50	11	-3.77	18	14.11	8
CENTUM	-0.57	13	-1.90	12	27.15	2
TCI	-0.77	19	-4.55	20	6.31	14
BAJAJ	-0.60	14	-3.14	15	7.54	12
AJMERA	-0.08	4	-0.45	9	22.40	5
BRIGADE	-1.15	22	182.70	1	-8.69	25
ALPINE	-0.08	3	0.85	7	-19.72	28
ANSAL	-0.71	17	-4.50	19	7.21	13

INTERPRETATION

The above table shows that Deep Industries of Oil and Gas sector gives the highest Sharpe's Ratio that is 0.24; Brigade of Banking sector gives the highest Treynor's Ratio that is 182.70; Anjani of cement industry gives the highest Jensen's Ratio that is 66.36.

TABLE-1.2: FOR THE YEAR 2016

Companies 2016	Sharpe's Ratio	Ranks	Treynor's Ratio	Ranks	Jensen's Ratio	Ranks
ICICI	-0.62	18	-3.02	8	7.21	5
AXIS	-0.73	22	-3.84	12	4.27	11
ALLAHABAD	-0.41	11	-2.42	5	10.92	3
BANK OF BORODA	-0.74	23	-11.57	26	-2.93	26
BHARATI AIRTEL	-1.05	29	-17.85	29	-4.74	28
OLECTRA	-0.33	8	-8.30	23	-0.80	22

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ADC	-0.94	26	-5.35	16	1.50	16
INFRATEL	-1.01	28	-13.43	28	-4.30	27
ACC	-0.94	27	-4.48	14	2.86	12
AMBUJA	-0.69	20	-3.57	11	4.94	10
ANJANI	-0.47	13	-2.43	6	12.23	2
KAKATIYA	0.04	1	0.25	2	31.81	1
ABAN	-0.35	9	-2.99	7	6.19	8
DEEP	-0.17	4	-1.36	3	8.40	4
IOC	-0.50	14	-6.22	21	0.22	20
NAGARJUNA	-0.16	3	-8.10	22	-0.72	21
CEREBRA	-0.16	2	-9.03	24	-1.02	23
DLINK	-0.54	15	1872.76	1	-8.80	30
3I INFOTECH	-0.36	10	-4.21	13	2.45	13
RS SOFTWARE	-0.23	5	-3.23	9	5.34	9
AARTI	-0.57	17	-12.20	27	-2.90	25
ABOTT	-1.70	30	-18.57	30	-5.67	29
BHARAT ELECT	-0.73	21	-4.85	15	2.04	14
CENTUM	-0.64	19	-9.12	25	-1.99	24
TCI	-0.46	12	-5.83	20	0.85	18
BAJAJ	-0.26	6	-1.96	4	6.66	6
AJMERA	-0.54	16	-3.53	10	6.28	7
BRIGADE	-0.93	25	-5.55	17	1.01	17
ALPINE	-0.31	7	-5.75	19	0.67	19
ANSAL	-0.90	24	-5.59	18	1.50	15

INTERPRETATION

The above table shows that Kakatiya Industries of Cement sector gives the highest Sharpe's Ratio that is 0.04; Dlink of computer hardware sector gives the highest Treynor's Ratio that is 1872.76; Kakatiya Industries of Cement sector gives the highest Jensen's Ratio that is 31.81

TABLE-1.3: FOR THE YEAR 2017

Companies	Sharpe's Ratio	Ranks	Treynor's Ratio	Ranks	Jensen's Ratio	Ranks
ICICI	-0.64	23	-2.84	16	2.00	13
AXIS	-1.38	30	-13.06	24	-2.99	21
ALLAHABAD	-0.44	13	-2.21	13	3.69	6
BANK OF BORODA	-0.56	18	-2.57	15	3.35	9
BHARATHI AIRTEL	-0.14	9	-0.58	9	7.69	2
OLECTRA	0.42	1	-6.60	22	6.42	3
ADC	-1.15	28	-6.17	21	-2.29	19
INFRATEL	-0.58	21	-6.04	20	-1.60	18
ACC	-0.57	20	-2.52	14	2.43	12
AMBUJA	-0.78	25	-4.23	18	-0.07	16
ANJANI	-0.14	10	-1.68	12	2.59	11
KAKATIYA	-0.11	8	-1.34	11	3.34	10
ABAN	-0.92	26	-122.97	30	-6.79	26
DEEP	-1.32	29	-15.59	25	-6.36	25
IOC	-0.43	12	-16.24	26	-3.24	22
NAGARJUNA	-0.55	17	-4.19	17	-0.07	15
CEREBRA	0.03	5	0.77	6	3.94	5
DLINK	-0.46	14	-19.28	27	-3.96	23

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3I INFOTECH	0.00	6	-0.13	8	3.35	8
RS SOFTWARE	-0.64	22	16.11	1	-9.39	29
AARTI	-0.73	24	-29.49	28	-4.78	24
ABOTT	-0.57	19	7.48	3	-7.27	28
BHARAT ELECT	-0.42	11	-34.73	29	-9.93	30
CENTUM	-1.07	27	15.52	2	-6.95	27
TCI	-0.53	16	-4.31	19	-0.17	17
BAJAJ	-0.08	7	-0.76	10	3.61	7
AJMERA	0.12	2	0.92	5	8.17	1
BRIGADE	0.05	3	0.47	7	5.56	4
ALPINE	-0.53	15	-10.77	23	-2.66	20
ANSAL	0.04	4	4.36	4	1.39	14

INTERPRETATION

The above table shows that olectra of Telecommunication sector gives the highest Sharpe's Ratio that is 0.42; RS software of computer software sector gives the highest Treynor's Ratio that is 16.11; Ajmera Industries of Construction and contracting real estate sector gives the highest Jensen's Ratio that is 8.17.

TABLE-1.4: FOR THE YEAR 2018

Companies	Sharpe's Ratio	Ranks	Treynor's Ratio	Ranks	Jensen's Ratio	Ranks
ICICI	-0.58	7	-5.47	12	1.19	9
AXIS	-0.77	12	-5.01	10	1.95	7
ALLAHABAD	-0.82	14	-14.11	25	-5.31	23
BANK OF BORODA	-0.48	4	-4.70	8	3.37	6
BHARATHI AIRTEL	-1.53	28	-15.34	26	-6.24	25
OLECTRA	-0.27	1	-3.24	5	4.73	3
ADC	-0.60	8	-16.26	27	-4.22	20
INFRATEL	-2.77	30	47.21	2	-11.44	28
ACC	-0.98	21	-6.37	14	0.37	12
AMBUJA	-0.95	17	-6.55	16	0.14	13
ANJANI	-1.40	25	-8.76	21	-2.81	18
KAKATIYA	-0.98	20	-7.87	20	-1.79	17
ABAN	-1.22	24	-7.52	19	-1.62	16
DEEP	-0.36	2	-2.88	4	10.91	1
IOC	-0.87	16	-10.68	23	-5.09	21
NAGARJUNA	-1.56	29	42.57	3	-22.62	30
CEREBRA	-0.37	3	-4.20	7	4.52	4
DLINK	-0.81	13	-6.37	15	0.49	11
3I INFOTECH	-1.44	26	142.63	1	-13.59	29
RS SOFTWARE	-0.74	10	-11.47	24	-5.50	24
AARTI	-0.98	19	-21.01	28	-5.18	22
ABOTT	-0.71	9	-5.47	13	0.92	10
BHARAT ELECT	-1.13	23	-26.82	29	-9.21	26
CENTUM	-1.50	27	-36.87	30	-9.62	27
TCI	-0.56	6	-3.60	6	8.43	2
BAJAJ	-0.52	5	-5.00	9	1.60	8
AJMERA	-0.97	18	-7.15	17	-0.79	15
BRIGADE	-0.75	11	-7.22	18	-0.72	14
ALPINE	-0.83	15	-5.02	11	3.52	5
ANSAL	-1.04	22	-9.11	22	-3.43	19

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INTERPRETATION

The above table shows that Olectra of Telecommunication sector gives the highest Sharpe's Ratio that is -0.27; 3I Infotech of computer software sector gives the highest Treynor's Ratio that is 142,63; Deep Industries of Oil and Gas sector gives the highest Jensen's Ratio that is 10.91.

TABLE-1.5: FOR THE YEAR 2019

Companies 2019	Sharpe's Ratio	Ranks	Treynor's Ratio	Ranks	Jensen's Ratio	Ranks
ICICI	-0.69	14	-2.66	9	4.04	11
AXIS	-0.42	8	-3.55	15	1.53	14
ALLAHABAD	-0.59	10	-5.46	17	0.05	16
BANK OF BORODA	-0.36	7	-1.58	6	12.00	2
BHARATHI AIRTEL	-1.04	19	-13.96	27	-2.57	20
OLECTRA	-1.28	24	-9.48	23	-3.51	24
ADC	-1.16	22	-22.52	29	-4.67	26
INFRATEL	-0.71	15	-10.89	24	-2.97	22
ACC	-0.78	16	-2.98	11	4.84	9
AMBUJA	-1.15	21	-5.21	16	0.42	15
ANJANI	-0.19	2	-1.76	8	5.10	8
KAKATIYA	-0.65	13	-3.43	13	4.67	10
ABAN	-1.69	30	-6.65	20	-2.65	21
DEEP	-0.30	6	-1.27	4	14.82	1
IOC	-0.82	17	-3.54	14	2.69	12
NAGARJUNA	-1.24	23	-14.44	28	-10.98	30
CEREBRA	-1.59	28	-41.45	30	-7.24	28
DLINK	-0.30	5	-1.57	5	5.78	6
3I INFOTECH	-1.14	20	-5.63	18	-0.15	17
RS SOFTWARE	-1.65	29	-7.46	21	-3.45	23
AARTI	-1.40	25	-7.59	22	-2.11	19
ABOTT	-0.63	12	8.29	1	-6.80	27
BHARAT ELECT	-0.25	4	-1.72	7	6.50	5
CENTUM	-0.01	1	-0.06	2	6.99	4
TCI	-1.43	26	-5.84	19	-0.59	18
BAJAJ	-0.53	9	-3.16	12	2.57	13
AJMERA	-0.62	11	-2.91	10	5.73	7
BRIGADE	-0.21	3	-1.02	3	11.24	3
ALPINE	-1.00	18	-11.20	25	-4.62	25
ANSAL	-1.43	27	-11.72	26	-8.83	29

INTERPRETATION

The above table shows that Centum of Electrical sector gives the highest Sharpe's Ratio that is -0.01; Abbott of Pharmaceutical sector gives the highest Treynor's Ratio that is 8.29; Deep Industries of Oil and Gas sector gives the highest Jensen's Ratio that is 14.82.

CONCLUSION AND FINDINGS

Investor can invest in a portfolio that matches their investment objective. By observing the risk and return earned by the individual securities, a portfolio has been constructed. Risk appetite of an investor plays an important role in selection of stock. The following are the stock prices of different companies which have performed well for different years based upon Risk &Return analysis and Sharpe's, Treynor's and Jensen's Ratio. Based on such analysis an optimal portfolio has been determined.

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Table-1.6: Suggested Securities

Companies	Optimistic Investor	Pessimist Investor
2015	Anjani of cement sector	Deep of oil and gas sector
2016	Kakatiya of Cement sector	Deep of oil and gas sector
2017	Bank of Baroda of Banking sector	Bharathi Airtel of Telecommunication sector
2018	Olectra of Telecommunication sector	Abbott of Pharmaceutical sector
2019	centum of manufacturing sector	D-Link of Information Technology

Table-1.7: Top PerformingSecurities using Sharpe's Measurement

2015	Deep Industries of Oil and gas sector
2016	Kakatiya Industries of cement sector
2017	Olectra Industry of Telecommunication sector
2018	Olectra Industry of Telecommunication sector
2019	Centum Industry of electrical manufacturing sector

Table-1.8: Top PerformingSecurities using Treynor's Measurement

2015	Brigade of Retail and Real Estate Sector
2016	DLink of computer Hardware sector
2017	RS Software of computer software sector
2018	3I Infotech of computer software sector
2019	Abbott of Pharmaceutical sector

Table-1.9: Top PerformingSecurities using Jensen's Measurement

2015	Anjani of Cement Industry
2016	Kakatiya of Cement Industry
2017	Ajmera of Retail and Real Estate sector
2018	Deep of Oil and Gas sector
2019	Deep of Oil and Gas sector

OPTIMAL PORTFOLIO

Optimal portfolio provides the investor the best investment decision which gives optimal return at a minimum risk.

1.	Deep of Oil and Gas sector
2.	Kakatiya of Cement and construction sector
3.	Olectra of Telecommunication sector

FINDINGS

The above table shows the optimal portfolio which is determined based on the Optimistic and Pessimistic risk appetite perspective of an investor and also by considering modern risk adjusted techniques based on year-wise performance of the stocks.

The optimal portfolio determined generates the maximum returns and minimum risk for the Pessimistic investor and maximum returns and maximum risks for the optimistic investor.

The Risk adjusted techniques are used to rank the stocks determining whether the stocks are underperforming or outperforming the market.

REFERENCES

- Gary Brinson, L. Randolph Hood and Gilbert L. Beebower (1995) A Research on Determinants of Portfolio Performance, Financial Analysts Journal Publications, volume 42, Issue 4.
- S. R Nanda, B. Mahanty and M. K Tiwari (2010) A Research on Clustering Indian Stock market data for Portfolio Management, Expert systems with application, volume 37, Issue 12, December 2010.

ISSN:0971-1260

Vol-22-Issue-14-December-2019

- Dr.I. Satyanarayana, N.B.C Sindhu and D. Maruthi (2015) A research on Review on Portfolio Management, International Journal of Advance Research In computer science and Management Studies, volume 3, Issue 2.
- Noel Amenc, Philippe Malaise and Lionel Martellini (2004), The Research on Revisiting Core-Satellite Investing - A Dynamic Model of Relative Risk Management, Journal of Portfolio Management (2004).
- Harry M. Markowitz (1971) Portfolio Selection: Efficient Diversification of Investments. Yale University Press – 351 Pages.
- Jensen M. C (1969) Risk, the pricing of capital assets, and the evaluation of investment portfolio. Journal of Business; 42, 607-636.