



# A STUDY ON PORT-FOLIO EVALUATION OF SELECTED PORT-FOLIO'S

**A. Somasekhar & Mr V Venkata Rao \***

Student, Department of Management Studies, Madanapalle Institute of Technology & Science.

\*Assistant Professor, Department of Management Studies, Madanapalle Institute of Technology & Science.

## **ABSTRACT**

The portfolio evaluation involves the determination of how a managed portfolio has performed relative to some comparison benchmark. Performance evaluation methods generally fall into two categories, namely conventional and risk-adjusted methods. The most widely used conventional methods include benchmark comparison and style comparison. The risk-adjusted methods adjust returns in order to take account of differences in risk levels between the managed portfolio and the benchmark portfolio. The major such methods are the Sharpe ratio, Treynor ratio, Modigliani and Modigliani, and Treynor Squared. The risk-adjusted methods are preferred to the conventional methods.

**Key words:** Port-folio's, Evaluation, Standard deviation, Systematic risk, Risk-adjusted measures, Sharpe measure, Treynor measure,

## **INTRODUCTION**

A portfolio is a collection of financial investments like stocks, bonds, commodities, cash, and cash equivalents, including closed-end funds and exchange traded funds (ETFs). People generally believe that stocks, bonds, and cash comprise the core of a portfolio. Though this is often the case, it does not need to be the rule. A portfolio may contain a wide range of assets including real estate, art, and private investments.

You may choose to hold and manage your portfolio yourself, or you may allow a money manager, financial advisor, or another finance professional to manage your portfolio.

## **DEFINITION OF PORTFOLIO**

As per portfolio definition, it is a collection of a wide range of assets that are owned by investors. The said collection of financial assets may also be valuables ranging from gold, stocks, funds, derivatives, property, cash equivalents, bonds, etc. Individuals put their

money in such assets to generate revenue while ensuring that the original equity of the asset or capital does not erode.

Depending on one's know-how of the investment market, individuals may either manage their portfolio or seek the assistance of professional financial advisors for the same. As per financial experts, diversification is a vital concept in portfolio management.

## **Review of Literature**

### **Dr. NallaBalaKalyan and S MD Salman**

The study focuses on analyzing the stock returns of 15 prominent companies listed on the National Stock Exchange (NSE) during a specific period, from 1st June 2017 to 31st March 2018. The research encompasses an evaluation of risk-return dynamics and portfolio assessment using the Sharpe model and Treynor model. The analysis is conducted solely on the selected 15 top listed companies, aiming to provide insights into their performance and determine their suitability for portfolio inclusion.

## **OBJECTIVES**

The objectives of the study were as follows:

- ❖ To assess the risk and return characteristics of selected stocks within the portfolio.
- ❖ To construct a portfolio using the selected stocks.
- ❖ To measure the return and risk of the selected portfolios, as well as compare them with the performance of the market index.
- ❖ To evaluate the performance of the selected portfolios based on their risk-adjusted returns and other relevant metrics.

## **Research methodology**

The research methodology is a structured approach used to collect information and data in order to support informed decision-making in business. This methodology includes a range of research techniques, including literature review, interviews, surveys, and other applicable methods. It involves analyzing both current and historical information to gain insights and draw conclusions.

Information was collected from the records and published annual reports of the websites websites and journals from yahoo finance.com.

**Data collection method:** Secondary data is used for the study.

**Sample Size:** 15 companies

**Sampling techniques:** Risk and Return, Sharpe, Treynor.

## **DATA ANALYSIS & INTERPRETION**

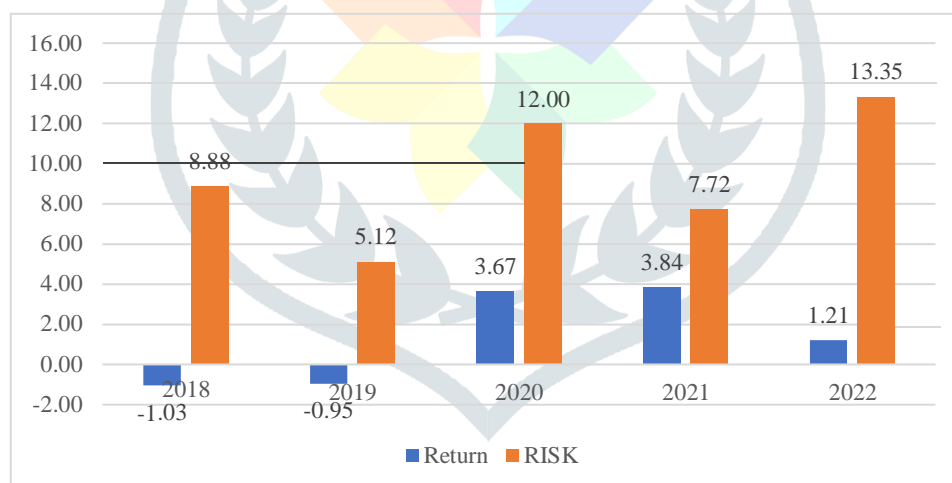
**Table No: 4.1**

**Statement of Return and Risk of Ambuja Cement duringThe period 2018 to 2023**

year	Return	RISK
2017-18	-1.03	8.88
2018-19	-0.95	5.12
2019-20	3.67	12.00
2020-21	3.84	7.72
2021-22	1.21	13.35

**Graph No: 4.1**

**Statement of Return and Risk of Ambuja cement duringThe period 2018 to 2022**



The above table and graph show that the highest return of the Ambuja Cement 3.84% for the year 2021, where has the given the lowest return of -1.03% for the year 2018. The highest risk of 13.35% for the year 2022, In the year 2019, the lowest risk was recorded at 5.12%. When the return and risk compared with individual returns of the cement then we can see that have return less than the risk.

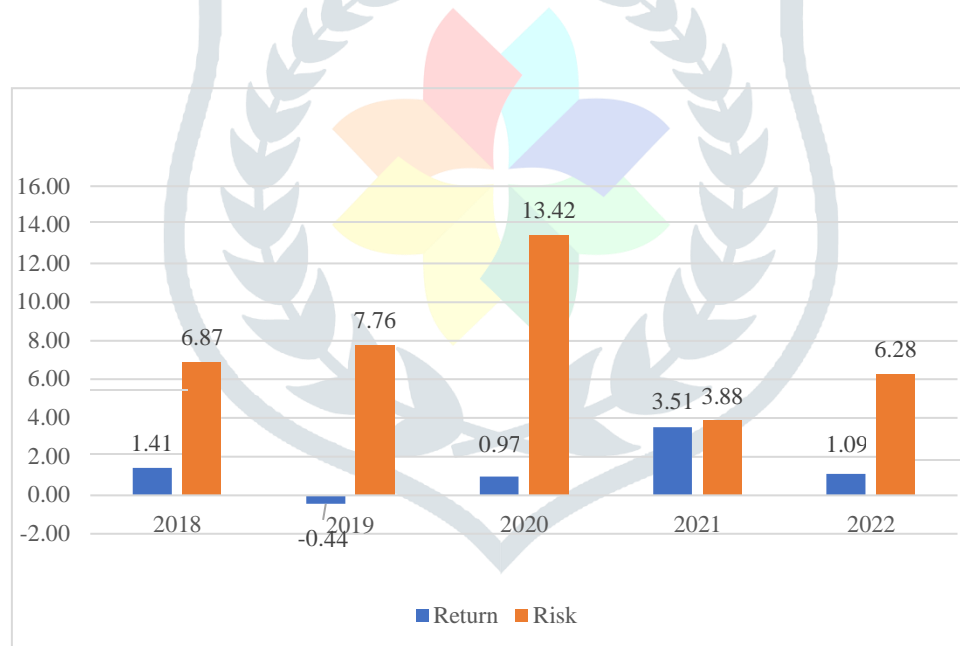
### Table No: 4.2

#### Statement of Return and Risk of L&T CEMENT during The period 2018 to 2022

Year	Return	Risk
2018	1.41	6.87
2019	-0.44	7.76
2020	0.97	13.42
2021	3.51	3.88
2022	1.09	6.28

### Graph No: 4.2

#### Statement of Return and Risk of L&T CEMENT during The period 2018 to 2022



**INTERPRETATION:**

The above table and graph show that the highest return of the L&T Cement is 3.51% for the year 2021, where has the given the lowest return of -0.44% for the year 2019. The highest risk of 13.42% for the year 2020, In the year 2022, the lowest risk was reported at 6.28%.. When the return and risk compared with individual returns of the cement then we can see that have return less than the risk.

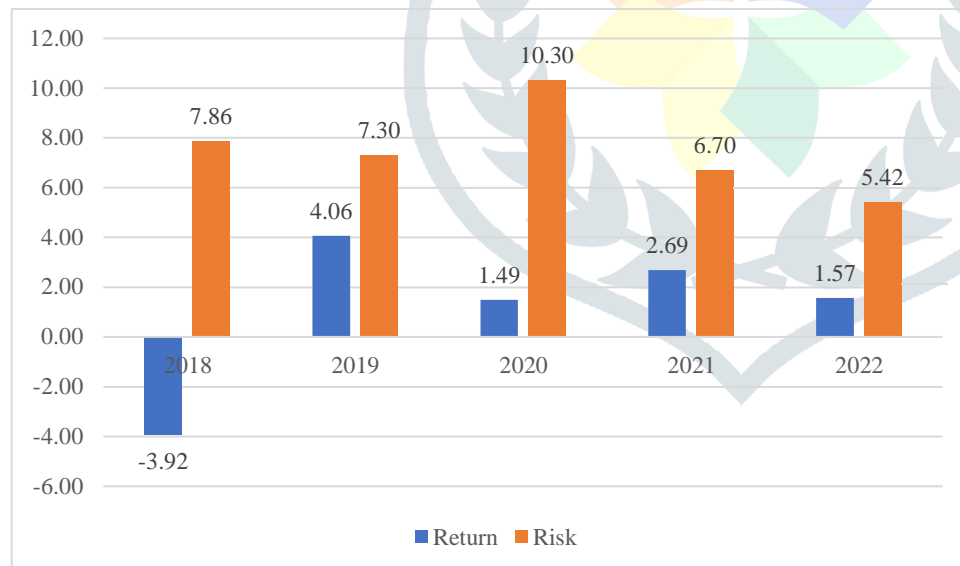
**Table No: 4.3**

**Statement of Return and Risk of Bharathi cement during The period 2018 to 2022**

Year	Return	Risk
2018	-3.92	7.86
2019	4.06	7.30
2020	1.49	10.30
2021	2.69	6.70
2022	1.57	5.42

**Graph No: 4.3**

**Statement of Return and Risk of Bharathi cement during The period 2018 to 2022**



**INTERPRETATION:**

2019, where has the given the lowest return of -3.92% for the year 2018. The highest risk of 10.30% for the year 2021, In the year 2022, the lowest risk was observed at 5.42%. When the return and risk compared with individual returns of the cement then we can see that have return less than the risk.

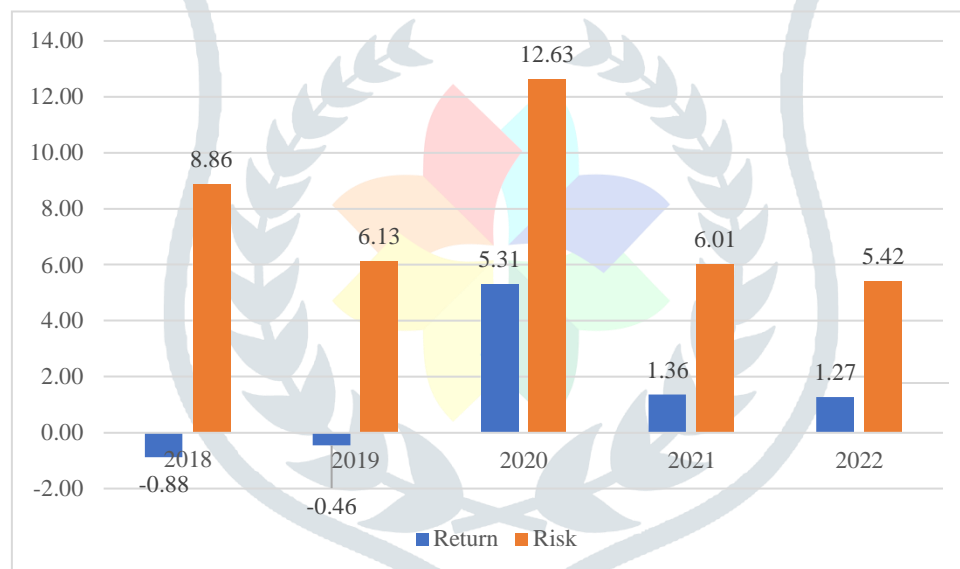
#### Table No: 4.4

#### Statement of Return and Risk of CIPLA lab during The period 2018 to 2022

Year	Return	Risk
2018	-0.88	8.86
2019	-0.46	6.13
2020	5.31	12.63
2021	1.36	6.01
2022	1.27	5.42

#### Graph No: 4.4

#### Statement of Return and Risk of CIPLA lab during the period 2018 to 2022



#### INTERPRETATION:

The above table and graph show that the highest return of CIPLA lab 5.31% for the year 2020, where has the given the lowest return of -0.88% for the year 2018. The highest risk of 12.63% for the year 2020, For the year 2022, the lowest risk reported was 5.42%. When

return less than the risk.

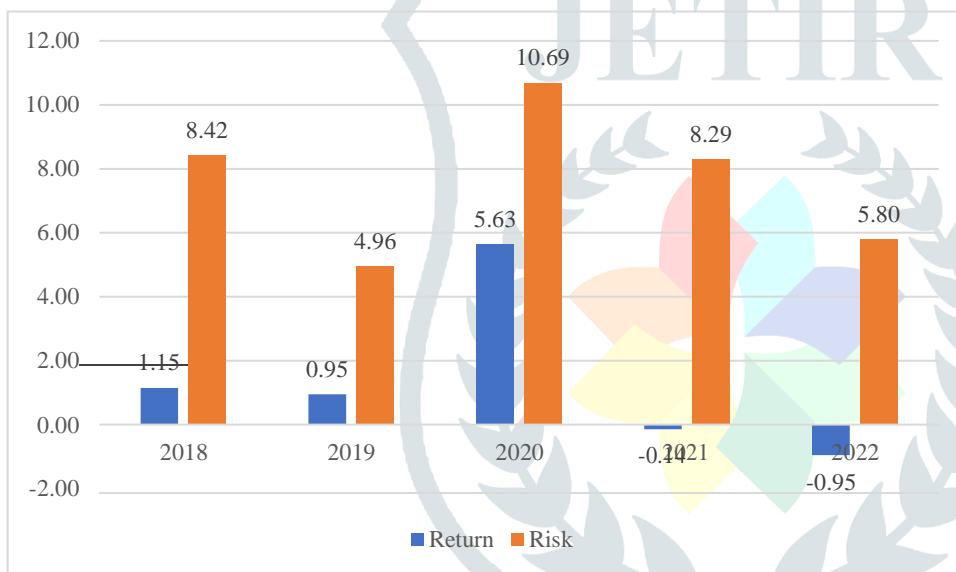
**Table No: 4.5**

**Statement of Return and Risk of REDDY’S lab duringThe period 2018 to 2022**

Year	Return	Risk
2018	1.15	8.42
2019	0.95	4.96
2020	5.63	10.69
2021	-0.14	8.29
2022	-0.95	5.80

**Graph No: 4.5**

**Statement of Return and Risk of REDD’S lab duringThe period 2018 to 2022**



**INTERPRETATION:**

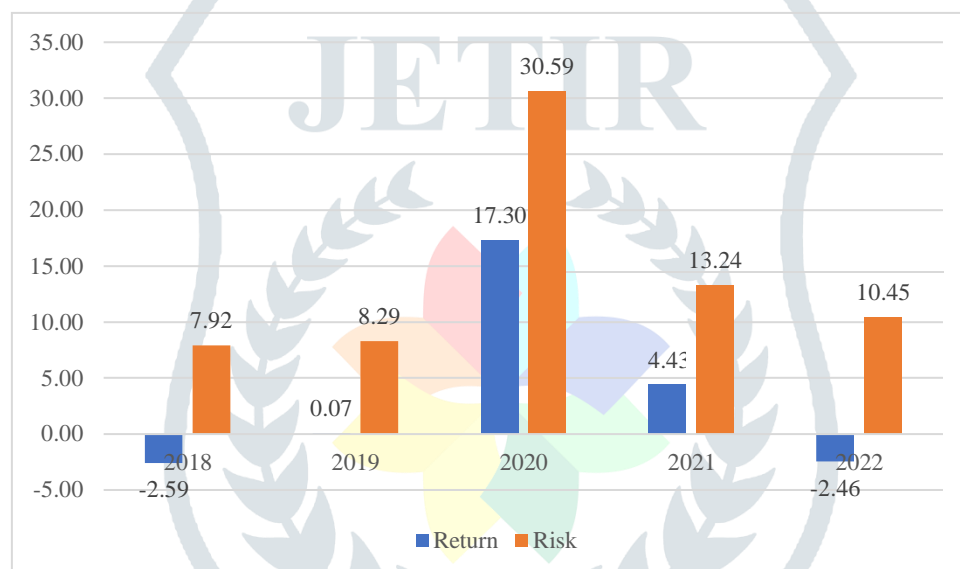
The above table and graph show that the highest return of Redd’s lab 5.63% for the year 2020, where has the given the lowest return of -0.95% for the year 2022. The highest risk of 10.69% for the year 2020, where has the given the lowest risk 4.96% for the year 2019. When the return and risk compared with individual returns of the pharma then we can see that have return less than the risk.

### Statement of Return and Risk of LAURUS lab duringThe period 2018 to 2022

Year	Return	Risk
2018	-2.59	7.92
2019	0.07	8.29
2020	17.30	30.59
2021	4.43	13.24
2022	-2.46	10.45

#### Graph No: 4.6

### Statement of Return and Risk of LAURUS lab duringThe period 2017-18 to 2021-22



#### INTERPRETATION:

The above table and graph show that the highest return of Laurus lab 17.30% for the year 2020, where has the given the lowest return of -2.59% for the year 2019-20. The highest risk of 10.69% for the year 2018, where has the given the lowest risk 30.59% for the year 2020. When the return and risk compared with individual returns of the pharma then we can see that have return less than the risk.

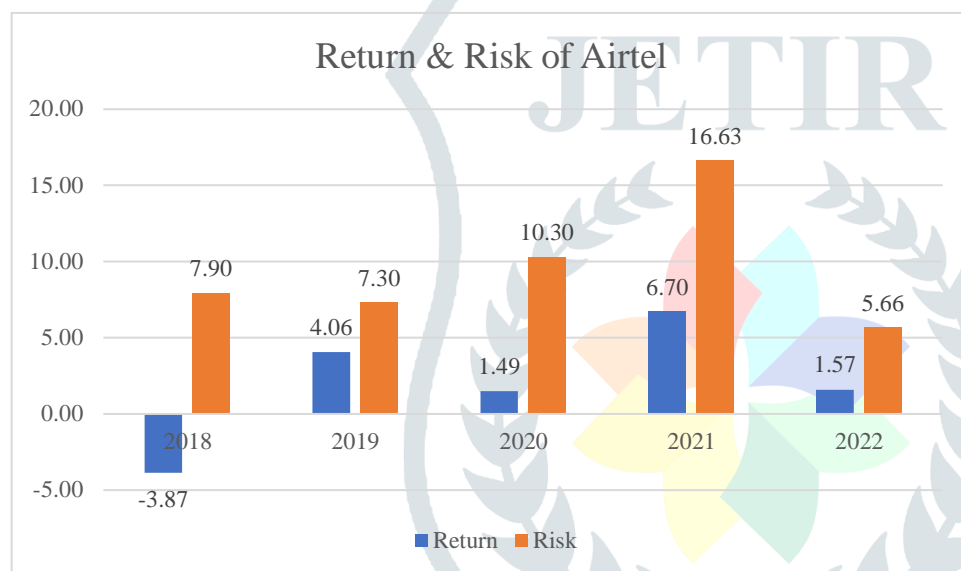


## Statement of Return and Risk of Airtel during The period 2018 to 2022

Year	Return	Risk
2018	-3.87	7.90
2019	4.06	7.30
2020	1.49	10.30
2021	6.70	16.63
2022	1.57	5.66

### Graph No: 4.7

#### Statement of Return and Risk of Airtel during The period 2018 to 2022



### INTERPRETATION:

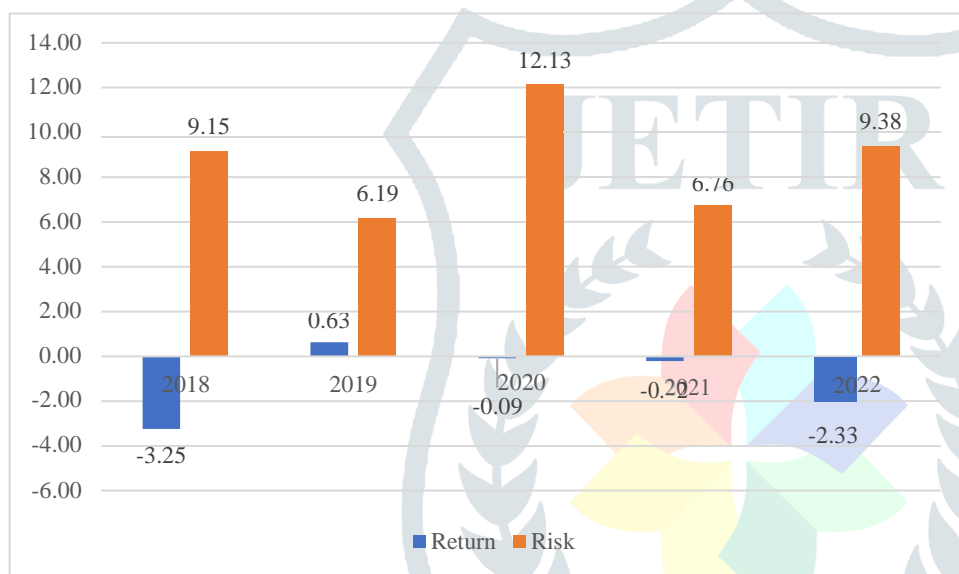
The above table and graph show that the highest return of Airtel company 6.70% for the year 2021, where has the given the lowest return of -3.87% for the year 2018. The highest risk of 16.63% for the year 2022, In the year 2018, the lowest risk recorded was 5.66%. When the return and risk compared with individual returns of the telecom industry then we can see that have return less than the risk.

### Statement of Return and Risk of Vodafone during The period 2018 to 2022

Year	Return	Risk
2018	-3.25	9.15
2019	0.63	6.19
2020	-0.09	12.13
2021	-0.22	6.76
2022	-2.33	9.38

#### Graph No: 4.8

### Statement of Return and Risk of Vodafone during The period 2017-18 to 2021-22



#### INTERPRETATION:

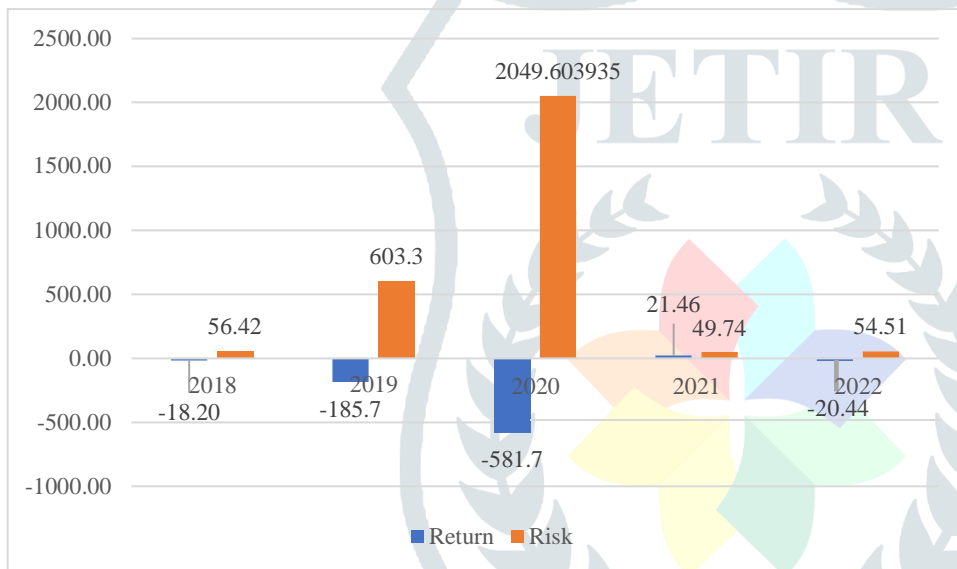
The above table and graph show that the highest return of Vodafone 0.63% for the year 2019, where has the given the lowest return of -3.25% for the year 2018. The highest risk of 12.13% for the year 2020, In the year 2019, the lowest risk observed was 6.19%. When the return and risk compared with individual returns of the telecom industry then we can see that have return less than the risk.

### Statement of Return and Risk of Jio during The period 2018 to 2022

Year	Return	Risk
2018	-18.20	56.42
2019	-185.7	603.3
2020	-581.7	2049.604
2021	21.46	49.74
2022	-20.44	54.51

### Graph No: 4.9

#### Statement of Return and Risk of Cipla during The period 2017-18 to 2021-22



### INTERPRETATION:

The above table and graph show that the highest return of jio company 21.46% for the year 2021, where has the given the lowest return of -581.7% for the year 2020. The highest risk of 2049.60% for the year 2020, In the year 2021, the lowest risk reported was 49.74%. When the return and risk compared with individual returns of the telecom industry then we can see that have return less than the risk.

**Table No: 4.10**

**Statement of Return and Risk of HDFC bank during The period 2018 to 2022**

Year	Return	Risk
2018	0.44	7.09
2019	1.99	7.43
2020	1.97	12.71
2021	-0.62	8.04
2022	0.79	7.60

**Graph No: 4.10**

**Statement of Return and Risk of HDFC bank during The period 2018 to 20-22**



**INTERPRETATION:**

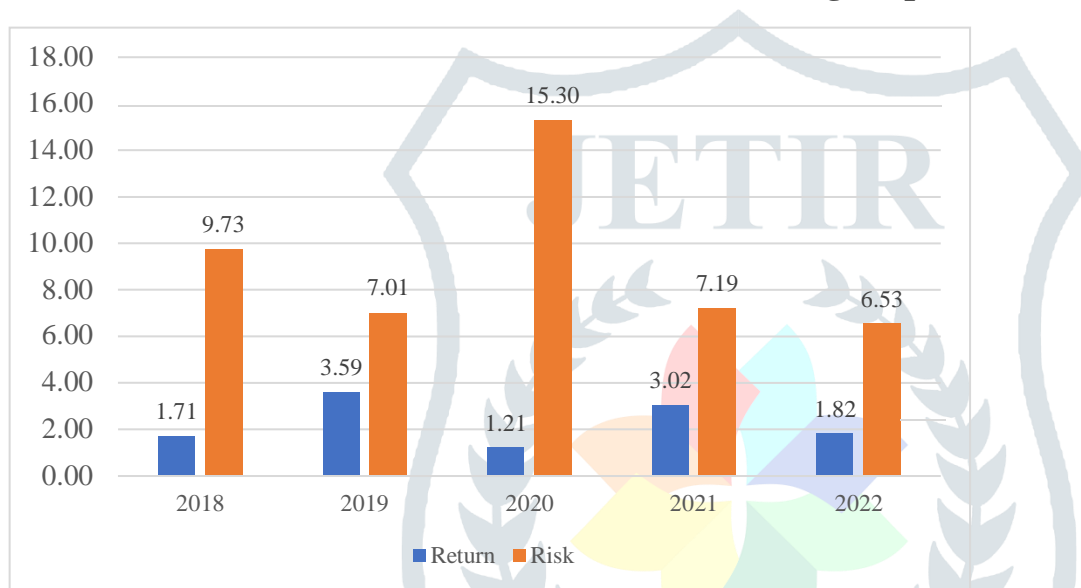
The above table and graph show that the highest return of Hdfc bank 1.99% for the year 2019, where has the given the lowest return of -0.62% for the year 2021. The highest risk of 12.71% for the year 2021, where has the given the lowest risk 7.09% for the year 2018. When the return and risk compared with individual returns of the bank then we can see that have return less than the risk.

## Statement of Return and Risk ICICI Bank duringThe period 2018 to 2022

Year	Return	Risk
2018	1.71	9.73
2019	3.59	7.01
2020	1.21	15.30
2021	3.02	7.19
2022	1.82	6.53

### Graph No: 4.11

## Statement of Return and Risk of ICICI Bank duringthe period 2018 to 2022



### INTERPRETATION:

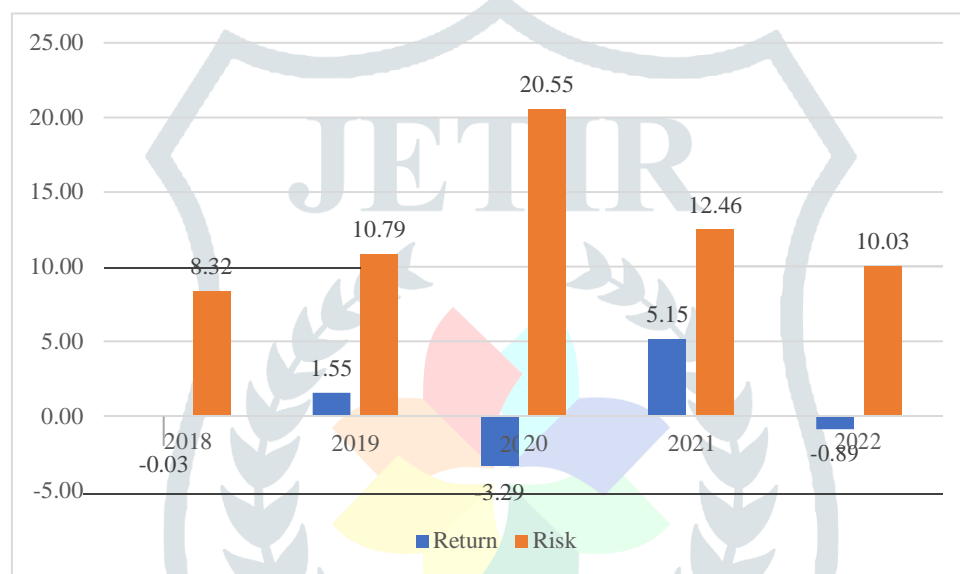
The above table and graph show that the highest return of ICICI 3.02% for the year 2021, where has the given the lowest return of 1.21%for the year 2020. The highest risk of 15.30% for the year 2020, In the year 2022, the lowest risk observed was 6.53%. When the return and risk compared with individual returns of the bank then we can see that have return less than the risk.

### Statement of Return and Risk of SBI bank during the period 2018 to 2022

Year	Return	Risk
2018	-0.03	8.32
2019	1.55	10.79
2020	-3.29	20.55
2021	5.15	12.46
2022	-0.89	10.03

#### Graph No: 4.12

### Statement of Return and Risk of SBI bank during the period 2018 to 2022



#### INTERPRETATION:

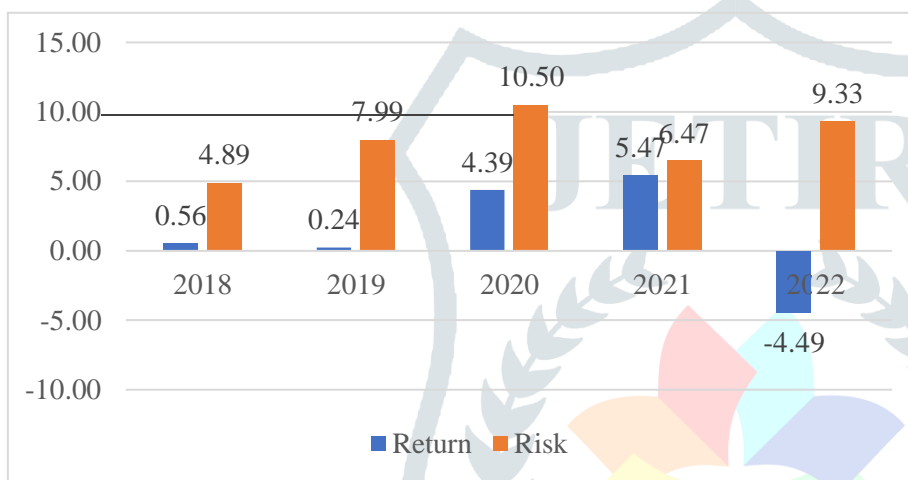
The above graph show that the highest return of SBI bank 5.15% for the year 2021, where has the given the lowest return of -3.29% for the year 2020. The highest risk of 20.55% for the year 2020, where has the given the lowest risk 8.32% for the year 2018. When the return and risk compared with individual returns of the bank then we can see that have return less than the risk.

### Statement of Return and Risk of Wipro during The period 2018 to 2022

Year	Return	Risk
2018	0.56	4.89
2019	0.24	7.99
2020	4.39	10.50
2021	5.47	6.47
2022	-4.49	9.33

#### Graph No: 4.13

### Statement of Return and Risk of Wipro during The period 2018 to 2022



#### INTERPRETATION:

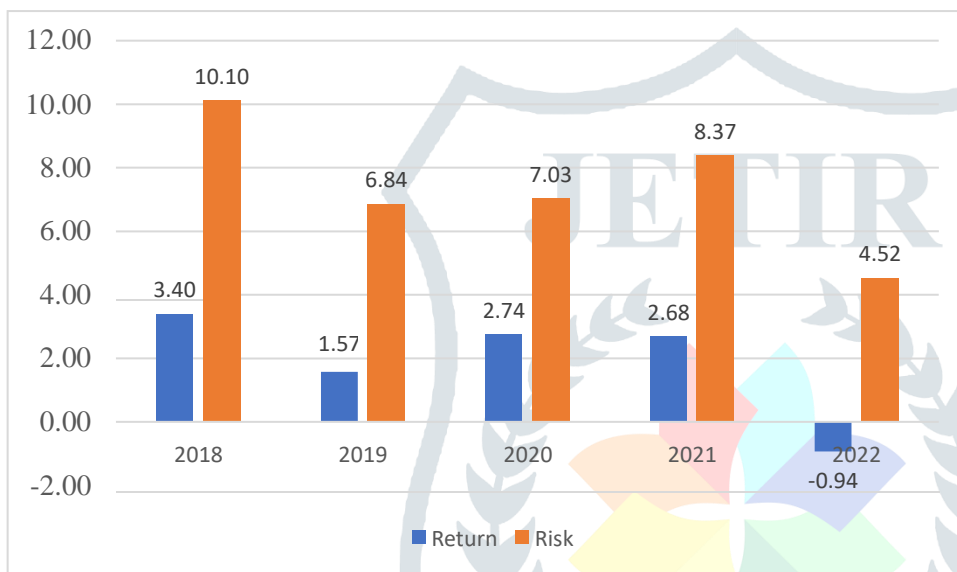
The above graph show that the highest return of Wipro company 5.47% for the year 2021, where has the given the lowest return of -4.49% for the year 2022. The highest risk of 10.50% for the year 2020, In the year 2018, the lowest risk reported was 4.89%. When the return and risk compared with individual returns of the IT industry then we can see that have return less than the risk.

## Statement of Return and Risk of TCS duringThe period 2018 to 2022

Year	Return	Risk
2018	3.40	10.10
2019	1.57	6.84
2020	2.74	7.03
2021	2.68	8.37
2022	-0.94	4.52

### Graph No: 4.14

## Statement of Return and Risk of TCS duringThe period 2018 to 2022



### INTERPRETATION:

The above table and graph show that the highest return of TCS Company 3.40% for the year 2018, where has the given the lowest return of -0.94% for the year 2022. The highest risk of 10.10% for the year 2018, In the year 2022, the lowest risk observed was 4.52%. When the return and risk compared with individual returns of the IT industry then we can see that have return less than the risk.

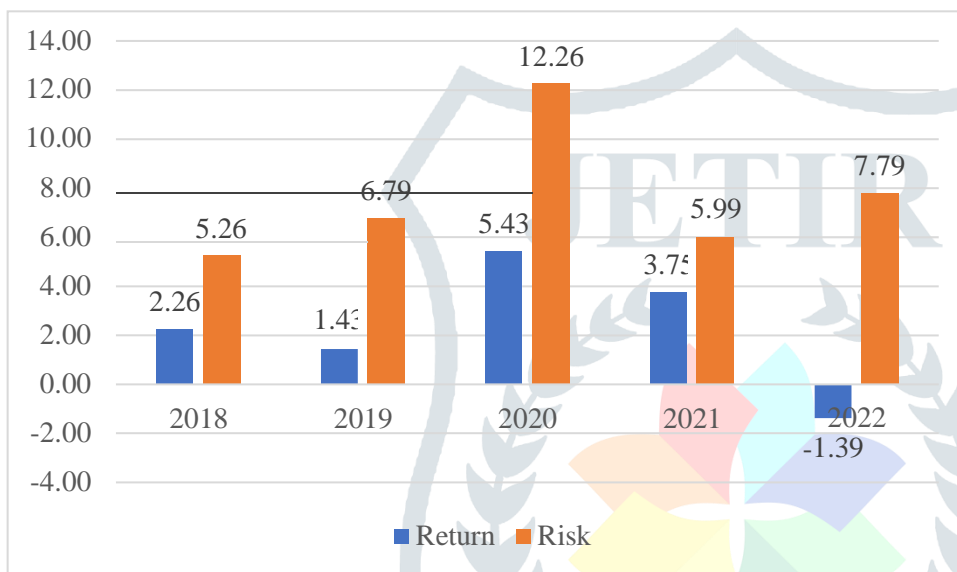


## Statement of Return and Risk of Infosys during The period 2018 to 2022

Year	Return	Risk
2018	2.26	5.26
2019	1.43	6.79
2020	5.43	12.26
2021	3.75	5.99
2022	-1.39	7.79

### Graph No: 4.15

## Statement of Return and Risk of Infosys during The period 2018 to 2022



### INTERPRETATION:

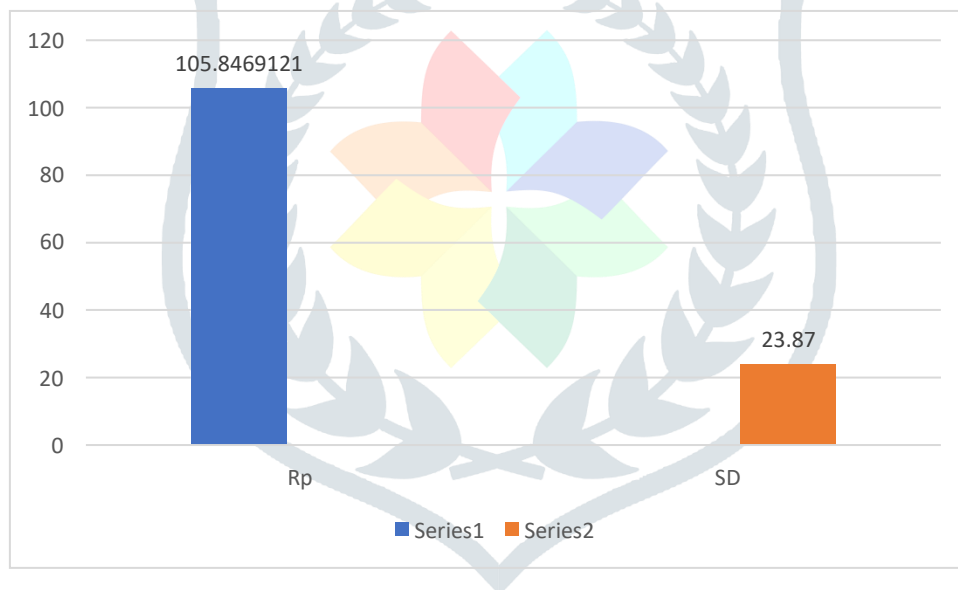
The above table and graph show that the highest return of Infosys company 5.43% for the year 2020, where has the given the lowest return of -1.39% for the year 2022. The highest risk of 12.26% for the year 2020, In the year 2018, the lowest risk recorded was 5.26%. When the return and risk compared with individual returns of the IT industry then we can see that have return less than the risk.

**Statement of portfolio from Cement Industry during 2018 to 2022**

SLNO	Name of the Stock	returns	Risk
1	Ambuja	16.20	27.05
2	L&T	14.86	18.32
3	Bharathi	74.78	57.77
4	Rp	105.84	
5	SD		23.87

**Graph No: 4.16**

**Statement of Return and Risk of Portfolio from Cement Industry during Period 2018-19 to 2021-22**



**INTERPETATION:**

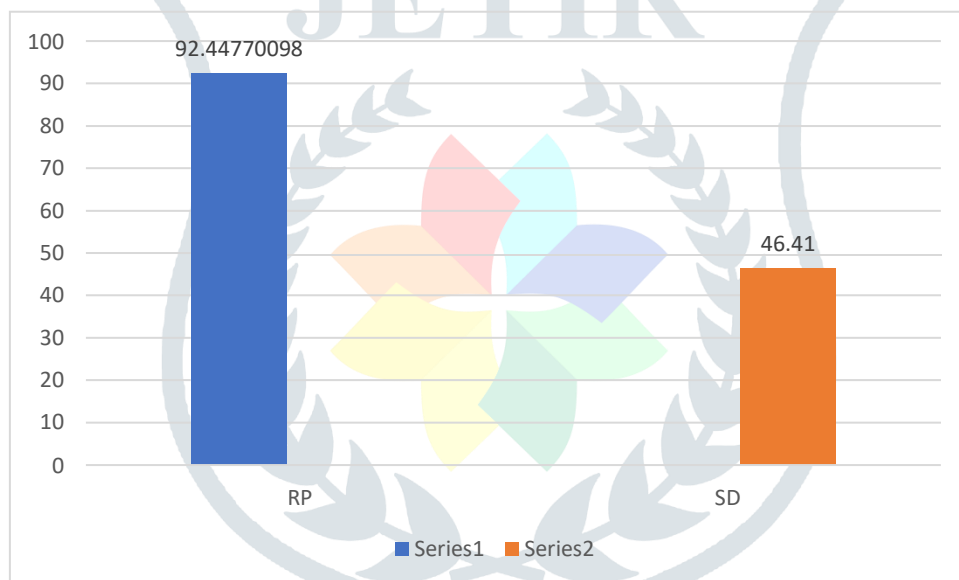
From the above graph show that the cement industry gave the highest return of bharathi 74.78. Where the L&T has given the lowest return of 14.86%. The Bharathi cement gave the highest risk of 57.77%. Where the L&T has given the lowest risk 18.32%. and RP value of 105.84%. and SD value is 23.87%. When the return and risk compared with individual returns of the cement then we can see that risk less than the return.

**Statement of Return and Risk of Portfolio from Pharma Industry during the period 2018 to 2022**

SLNO	Name of the Stock	returns	Risk
1	Cipla	16.49	26.49
2	Redds lab	14.60	21.37
3	Lauras	61.36	89.93
4	RP	92.44	
5	SD		46.41

**Graph No: 4.17**

**Statement of Return and Risk of Portfolio from Pharma Industry during the period 2018 to 2022**



**INTERPETATION:**

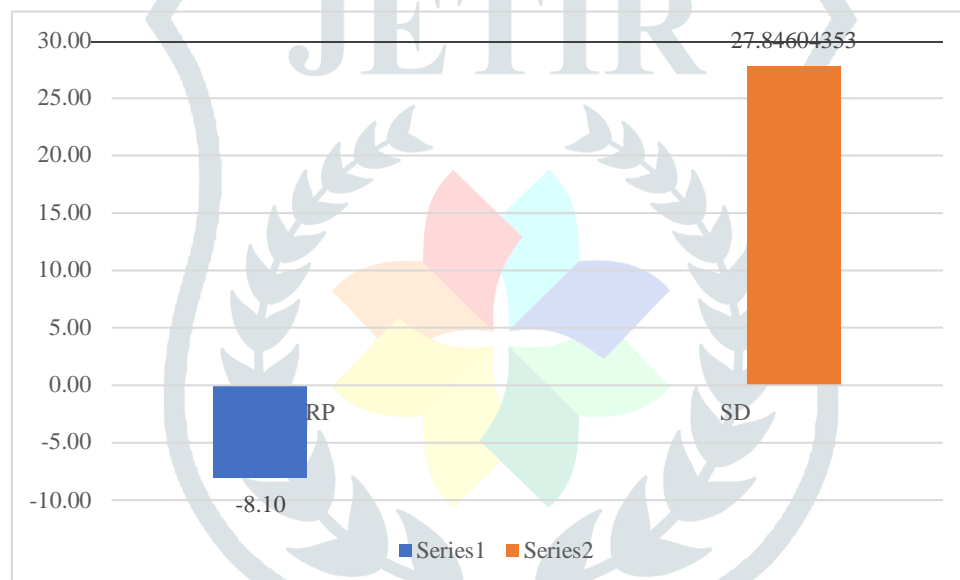
From the above graph show that the Laurus gave the highest return of 61.36%. Where the Redd’s lab has given the lowest return of 14.60%. The Laurus gave the highest risk of 89.93%. Where the Redd’s lab has given the lowest risk 21.37%. and RP is 92.44% and SD values is 46.41%. When the return and risk compared with individual returns of the cement then we can see that have risk less than the return.

### Statement of portfolio selected Telecom Industry during 2018 to 2022

SLNO	Name of the portfolio	returns	Risk
1	Airtel	16.67	17.44
2	Vodafone	-6.58	11.36
3	Jio	-18.19	54.74
4	RP	-8.10	
5	SD		27.84

#### Graph No: 4.18

### Statement of portfolio selected Telecom Industry during 2018 to 2022



#### INTERPETATION:

From the above graph show that the airtel gave the highest return of 16.67%. Where the jio has given the lowest return of -18.19%. The jio gave the highest risk of 54.74%. Where the Vodafone has given the lowest risk 11.36%. and RP value is -8.10 and SD value is 27.84%. When the return and risk compared with individual returns of the telecom then we can see thathave risk less than the return.

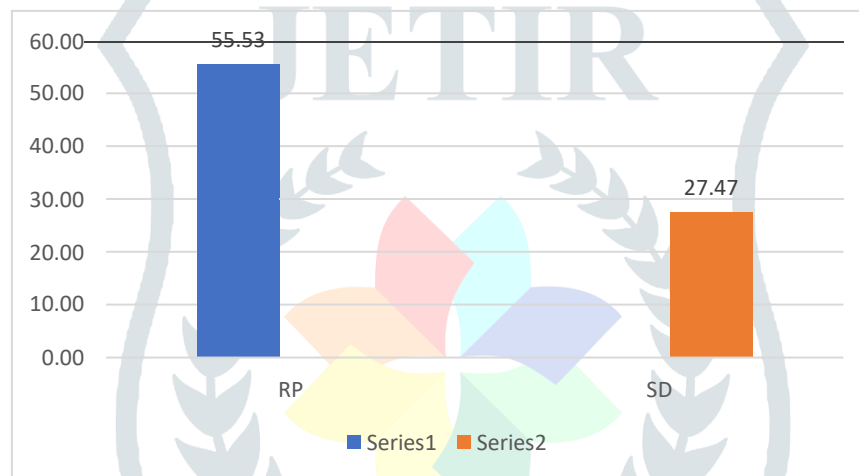
### Statement of portfolio selected Banking Industry during 2018 to 2022

SLNO	Name of the portfolio	Returns	Risk
1	HDFC	9.50	19.74
2	ICICI	26.35	22.67
3	SBI	19.68	40.01
4	RP	55.53	
5	SD		27.47

Graph No:

4.19

### Statement of portfolio selected Banking Industry during 2018 to 2022



### INTERPETATION:

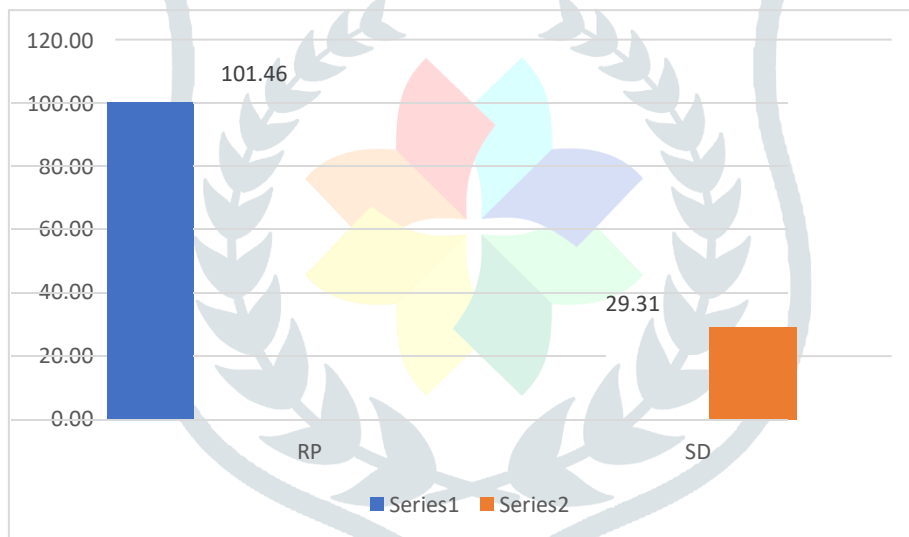
From the above graph show that the ICICI gave the highest return of 26.35%. Where the HDFC has given the lowest return of 9.50%. The SBI gave the highest risk of 40.01%. Where the HDFC has given the lowest risk 19.74%. and RP values is 55.53% and SD values is 27.47%. When the return and risk compared with individual returns of the banking then we can see that have risk less than the return.

**Statement of portfolio selected IT Industry during 2018 to 2022**

SLNO	Name of the portfolio	returns	Risk
1	Wipro	38.91	43.23
2	TCS	26.06	20.04
3	Infosys	32.14	24.62
4	RP	101.46	
5	SD		29.31

**Graph No: 4.20**

**Statement of portfolio selected IT Industry during 2017-18 to 2021-22**



**INTERPETATION:**

From the above graph show that the Wipro gave the highest return of 38.91%. Where the TCS has given the lowest return of 26.06%. The Wipro gave the highest risk of 43.23%. Where the TCS has given the lowest risk 20.04%. and RP values is 101.46% and SD values is 29.31%. When the return and risk compared with individual returns of the bank then we can see that have risk less than the return.

## Evaluation of Port-folio's

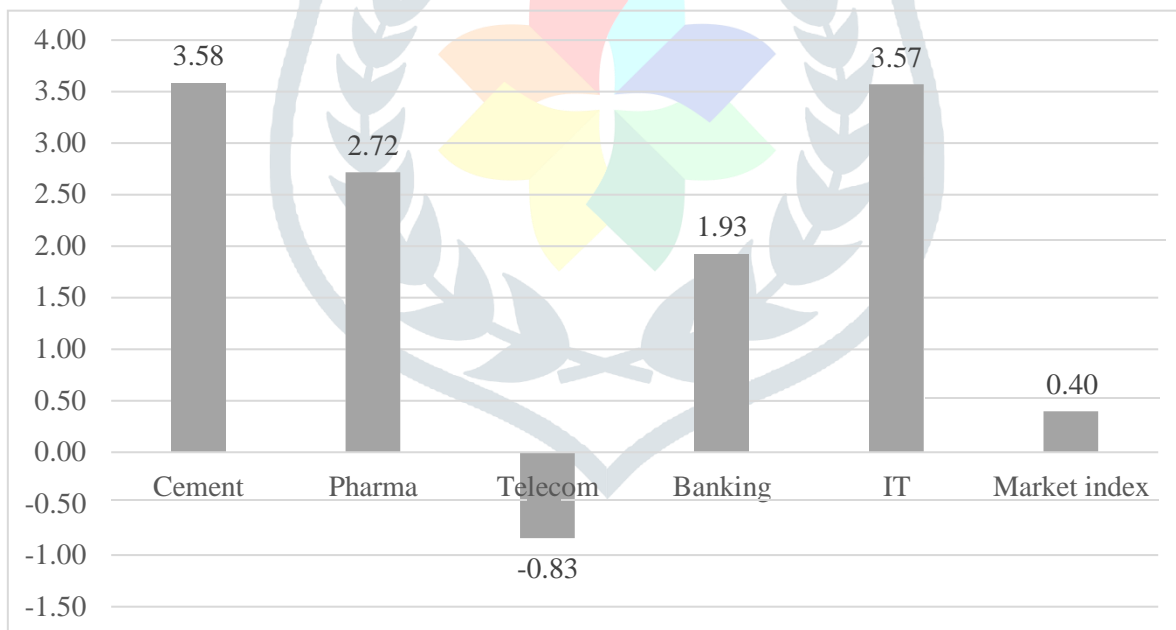
**Table No: 4.21**

**Statement of Evaluation of Selected Port-Folio's Under Sharpe Model during the Period 2018 to 2022**

Sl. No	Name of the Portfolio's	Rp	Rf	bp	Treynor Ratio	Rank
1	Cement Industry	105.85	7.2	1.20	316.19	1
2	Pharma Industry	92.45	7.2	0.25	114.02	2
3	Telecom Industry	1689.60	7.2	0.66	-37.20	6
4	Banking Industry	55.53	7.2	0.61	74.62	4
5	IT Industry	101.46	7.2	0.33	112.65	3
6	Market Index	13.422	7.2	15.66	9.39	5

**Graph No: 4.21**

**Statement of Evaluation of Selected Port-Folio's Under Sharpe Model during the Period 2018 to 2022**



## INTERPRETATION

According to portfolio manager to suggested Sharpe ratio model better to invest Cemnet industry. The Cement industry is placed first rank and IInd rank IT industry, Pharma IIIrd and the Banking industry is placed IVth and Market index Vth and Telecom industry is placed VIth ranked. Respectively comparing with the market return all funds are performing well.

By comparing all the Six schemes i.e., Cement', Pharma, Telecom, Banking and IT, Market index fund. Upon analysis, it can be observed that the balanced fund growth scheme is generating better returns compared to other schemes. However, it is important to note that the balanced dividend scheme carries a higher level of risk compared to other schemes. Cement getting more returns compare the Pharma, Telecom, Banking, IT Industries and compare to Market index.

**Table No: 4.22**

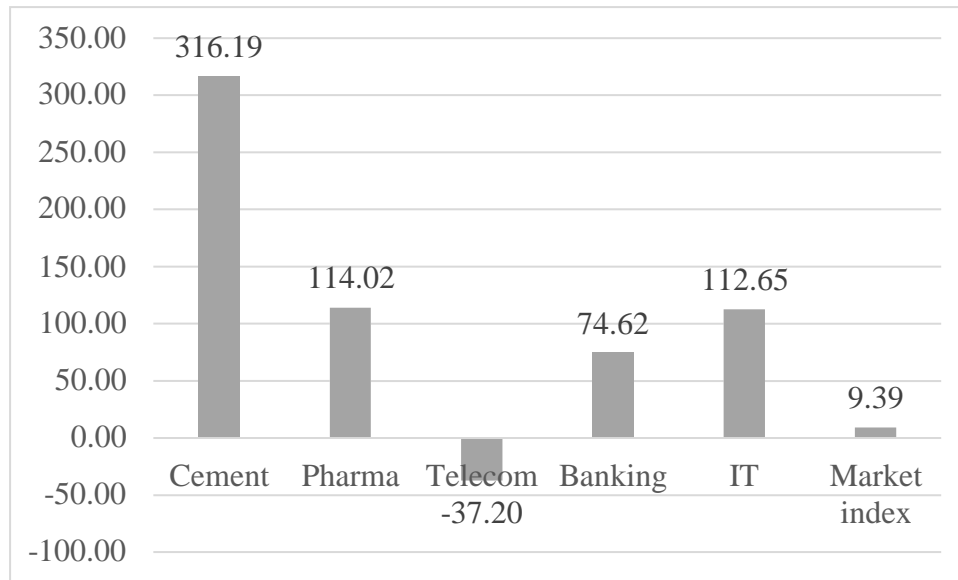
### Statement of Evaluation of Selected Port-Folio's Under Treynor Model during the Period 2018 to 2022

Sl. No	Name of the Portfolio's	Rp	Rf	bp	Treynor Ratio	Rank
1	Cement Industry	105.85	7.2	1.36	316.19	1
2	Pharma Industry	105.85	7.2	1.08	114.02	2
3	Telecom Industry	105.85	7.2	0.18	-37.20	6
4	Banking Industry	105.85	7.2	1.08	74.62	4
5	IT Industry	105.85	7.2	1.82	112.65	3
6	Market Index	13.422	7.2	0.55	9.39	5

**Graph No: 4.22**

### Statement of Evaluation of Selected Port-Folio's Under Treynor Model during the Period 2018 to 2022





## INTERPRETATION

According to portfolio manager to suggested Treynor ratio model better to invest Cemnet industry. The Cement industry is placed first rank and IInd rank Pharma industry, IT IndustryIIIrd and the Banking industry is placed IVth and Market index Vth and Telecom industry is placed VIth ranked. Respectively comparing with the market return all funds are performing well. By comparing all the Six schemes i.e., Cement', Pharma, Telecom, Banking and IT, Market index fund. Upon analysis, it can be observed that the balanced fund growth scheme is generating better returns compared to other schemes. However, it is important to note that the balanced dividend scheme carries a higher level of risk compared to other schemes.

Cement getting more returns compare the Pharma, Telecom, Banking, IT Industries andcompare to Market index.

## FINDINGS

- The study's major findings are as follows:
  - ❖ Overall, when comparing returns and risks across different industries, it is noted that the return outweighs the risk.
  - ❖ According to the e-portfolio manager, the cement industry exhibited the best performance based on the Sharpe ratio and Treynor ratio models, ranking first. It was followed by the pharma industry, IT industry, banking industry, market index, and telecom industry.
  - ❖ The balanced fund growth scheme demonstrated better returns compared to other schemes, while the balanced dividend scheme carried more risk.

- ❖ The study utilized the market index as a benchmark for the portfolio's performance.
- ❖ To summarize, the findings highlight the varying performance of different industries, with the cement industry and pharma industry standing out positively. The Telecom industry consistently exhibited favorable returns, while the balanced fund growth scheme proved to be a strong performer. The analysis was conducted by comparing returns and risks across industries and utilizing the market index as a benchmark.

## SUGGESTION

Based on the preceding analysis, it is evident that the Sharpe ratio offers valuable insights into fund performance. Therefore, it is recommended to employ the Sharpe ratio as a benchmark when comparing the performance of multiple funds. Another approach is to compare a fund's Sharpe ratio with that of its market index, such as the NSE bank in this study. By considering standard deviation as a measure of risk, the Sharpe ratio enables the assessment of risk-adjusted returns. Consequently, a fund with lower returns but relatively lower standard deviation can still exhibit a high Sharpe ratio, indicating superior risk-adjusted performance. For investors who allocate all their funds to a single investment, the Sharpe ratio proves particularly useful as a measure of risk-adjusted return. It facilitates the evaluation of low-risk investment portfolios and enables comparisons with portfolios of higher risk.

Additionally, the Sharpe ratio is effective in both short-term and long-term portfolio performance analyses. Consequently, analysts frequently rely on the Sharpe ratio to evaluate portfolio performance across different time horizons.

## CONCLUSION

The objective of this project was to assess the risk and return of selected financial services company stocks and understand how events can impact their stock prices. It is important to note that the results obtained from this study may not be entirely accurate due to limitations such as the short time period for the study and the use of a limited set of tools and techniques.

Companies should always be prepared for unforeseen events that can occur at any time. Being well-prepared for such events can help mitigate potential losses. Therefore, conducting a risk and return analysis is crucial for investors before making any investment decisions.

It is generally advisable to avoid stocks with higher beta values, as they are more exposed to market risks that cannot be diversified. Such stocks are not ideal for constructing a portfolio. When comparing the returns of the portfolio and the market using various methods, it is evident that the portfolio returns, as measured by the Sharpe ratio, are the lowest. However, the portfolio has the highest positive return according to the Treynor measure, while the market has the lowest negative return by the same measure. This indicates that investing in the market was riskier compared to investing in the portfolio. Therefore, individuals should consider avoiding investments in the market.

In conclusion, investors should carefully assess the risk and return characteristics of financial services company stocks and be prepared for unforeseen events. They should exercise caution when considering stocks with higher market risk and consider constructing a well-diversified portfolio.

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