



A Study on Analysis of Equity Share of Three Indian Auto Mobile Company

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ABSTRACT

The automotive industry, despite the fact that it does not have a lot of competition, is essential to building and maintaining a strong economy. A factor in the success of the various businesses is their capacity to design and carry out an effective marketing strategy. This marketing strategy offers a thorough examination of the factors that have contributed to the business's success year after year. Each of these Evaluations gives a thorough review of the factors that each of these Evaluations gives a thorough review. Businesses have figured out how to take use of their chances, problems, and limitations. The article examines each of these elements as well as the reasoning behind the company's decisions. In order to provide an indepth analysis of the automotive sectors, the research involved acquiring and evaluating data and raw materials from five different manufacturers as well as other research organisations. These results allowed researchers to determine how the automobile manufacturer differs from its rivals by comparing them to the market leader.

INTRODUCTION

In FY21, India produced 22.65 million vehicles, up from 13 million in April and October of the previous year. Due to a rising middle class and the prevalence of young people in India, the two-wheeler sector leads the market in terms of volume. The corporations' rising interest in studying rural markets is another factor contributing to the sector's growth. India exports a large number of automobiles, and in the near future, exports are anticipated to increase fast. In addition, it is anticipated that by 2022, India would be among the top two to four nations in the world for both government programming and significant vehicle production. The first vehicle reportedly appeared on Mumbai's streets in 1898. Since then, several changes have been made. Since then, there have been a number of developments in the Indian auto sector. India does not have a wide variety of vehicles, despite having a lot of Premiers, Ambassadors, scooters, tempos, lorries, and automobiles. The car industry has grown rapidly all over the world, but India's sector growth has been somewhat surprising and occasionally intriguing to observe. Mr. Crompton Greaves was the first person to drive a car on Indian soil, and Jamshedji Tata was the first Indian to possess an automobile. General Motors was in charge of assembling the produced automobiles before India obtained independence from the British in 1947, and the Indian automotive market was widely known for its imports. But how much do we really know about India's contribution to the creation of the automobile, It won't be as much, at least not in my opinion. In light of this, on this day of independence, let's take a historical journey as we examine the development of the Indian automotive industry from its inception to the present a world economy. All divisions experienced growth for the calendar year (CY) 2021, and overall sales rose by 5.8% to 18.49 million units from 17.47 million units for the same period in 2020. In all, 17.8 million vehicles and two-wheelers were sold, accounting for 81.21 percent and 14.56 percent of the market, respectively. 1,860,809 passenger vehicles*, three-wheelers, two-wheelers, and quadric cycles had all been produced as of January 2022. Mercedes Benz is the most well known producer of premium cars, with sales of 2,259 units in December 2021, up 19.7% from the previous year. In Q3 FY22, there were 761,124 passenger automobile sales. From FY18 to FY21, automobile exports climbed at a CAGR of 3.47 percent, totaling 4.13 million units. The majority of India's exports were two-wheelers (79.38 percent), passenger cars (9.79 percent), and three-wheelers (9.52 percent). In India, 3680 highend motorbikes were purchased in 2021. This represents a 21% rise over the data from 2020. Electric vehicle (EV) sales surpassed all previous highs in the third quarter of FY22 with 5,592 units sold. In India, a total of 329,190 EVs were sold in 2021, a 168 percent YoY growth from the 122,607 units that were sold the year before. NITI Aayog and the Rocky Mountain Institute (RMI) forecast that the Indian EV finance market would be worth around Rs. 3.7 lakh crore (US\$ 50 billion) by 2030. According to data by the India Energy Storage Alliance, the country's EV industry will grow at a CAGR of 36% through 2026. Estimates for the same period also predict that the market for EV batteries will grow at a CAGR of 30%. The Indian and global economies are both significantly impacted by the car industry. With the delicensing of the sector in 1991 and the subsequent opening up for 100% FDI via automated procedure, the Indian car industry set off on a new adventure. Around 5 lakh people are directly employed by the automobile sector in India.

It generates 4.7 percent of India's GDP and generates 19 percent of the country's direct tax income. The Indian car industry had a very small number of companies up until the early 1980s, and it was plagued by low production rates as well as outdated and inferior technology. The sector has significantly expanded since delicensing and openness to FDI as a result of the emergence overseas companies. The developing middle class and rising spending in India. The country's rising buying power and robust economic growth have recently drawn the attention of the major automakers to the Indian market. The market for auto components has risen by more than 26% in terms of production value at constant prices, whereas the Indian automobile sector has

expanded by around 18% annually on average. How yearly performance influences changes in corporate share prices is a key subject of financial study. Despite the infrequent volatility of share prices, some businesses typically have high price-to-earnings ratios. However, some companies perform poorly despite exhibiting a significant price variation. When a company succeeds, investors should consider if the company's stock is priced reasonably before purchasing or selling their shares.

OBJECTIVES OF THIS STUDY

The objective of this study is to examine foreign direct investment inflows into the automotive sector from 2018 through 2022.

- To look at the export trend of automobiles and the trend in automotive manufacturing.
- The export and manufacture of automobiles are increasing, according to the following theories.
- Literary efforts made on several stock market liquidity related subjects in the wake of the financial crisis and to objectively analyse the existing literature.

REVIEW OF LITERATURE

Kaur Harpreet, The author attempts to analyse the strengths and weaknesses of Maruti Suzuki Co. and how both affected its market share in India. Secondary data for this study has been gathered from annual reports, journals, and report car websites. Results indicate that MSL has successfully led the Indian automotive industry over the past few years.

Shinde Govind P. & Dubey Manisha The study has been conducted considering the segments such as passenger vehicle, commercial vehicle, utility vehicle, two and three wheeler vehicle of key players performance and also analyze SWOT analysis and key factors influencing growth of automobile industry.

Buvaneswari .R & Kanimozhip To study the credit worthiness of selected firms in Indian car industry, tiruchy. Professor Edward Altman of New York University developed method Z score analysis to predict the company failure or bankruptcy. To measure the fiscal fitness of a company combined a set of five financial ratios.

Srivastava Anubha Data analysis has been done using the top down approach , Economic analysis, industry analysis, company and technical analysis to find relationship between automobile sector index with market index. Mahindra and Mahindra have a great position on the stock market and will attract investor and this could lead to expansion and growth. Thus Tata motors and Maruti Suzuki need to take care of their stock and expansion.

DATA COLLECTION SOURCE

In this data collection source, secondary data from a few daily traded commodities and stock market indices were employed. In addition to data from the sensex stock market index, the information was put together using data from several publications, journals, magazines, newspapers, and other sources.

RESULT

MAHINDRA & MAHINDRA

The preceding four years of MAHINDRA&MAHINDRA (2018-2022)'s starting price,

closing price, and dividend are the data that were collected. The procedure is

$R = D + (P1 - PO) / PO * 100$, Calculation of the return for Mahindra & Mahindra using this formula:

$R = D + (P1 - PO) / PO * 100$ for the years 2018-2019, 2019-2020, and 2020-2021; $R = 1.7 + 284.95 - 678.15 / 678.15 * 100$; $R = -57.7306$ for the years 2020-2021; and $R = 0.47 + 795.25 - 281 * 100$; $R = 183.1744$ for the years 2021-2022; and $R = 1.75$

$821 / 821 * 100$

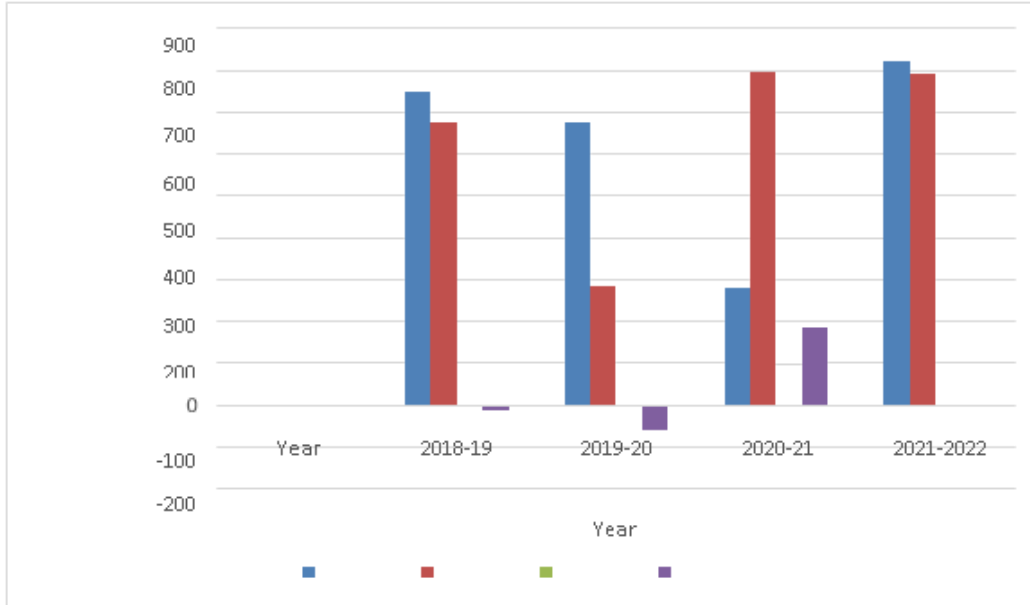
$R = -3.44092$

Computation of return of the company MAHINDRA&MAHINDRA

Year	Opening price	Closing price	Dividend	Returns
2018-19	748.9	673.4	150%	-9.88116
2019-20	678.15	284.95	170%	-57.7306
2020-21	281	795.25	47%	183.1744

2021-2022	821	791	175%	-3.44092
			Expected Return	28.0304325

Graphical Representation of Expected Risk and Expected Return



Interpretation:

The anticipated return and expected risk indexes for the period are obtained from the aforementioned graph, and it is discovered that during the months of 2018–2021, the stocks were below, indicating a buy signal, while the stocks were above, indicating a sell signal.

This stock was signalling a hold at the current price, which is between the sell and buy signals and signifies neither going above nor going below.

Computation of expected return & expected risk of MAHINDRA&MAHINDRA

Returns	R- Expected return	(R-Expected return) ²
-9.88116	-37.911582	1437.288
-57.7306	-85.760932	7354.937
183.1744	155.14386	24069.619
-3.44092	-31.471352	990.4459
Expected return = 28.0304325	$\sum(R-Expected\ return)$	8463.0724

To find variance, for the year 2018-2022 $VARIANCE = \frac{\sum(X - \bar{X})^2}{n-1} = \frac{(1.5 * 0.9275)^2 + (1.7 * 0.9275)^2 + (0.47 * 0.9275)^2 + (-1.75 * 0.9275)^2}{4-1} = 3.351366$



Standard Deviation =square root of variance =1.830673

Variance	3.351366
SD	1.830673

Interpretation

The computation of MAHINDRA&MAHINDRA's returns has been completed and is displayed above.

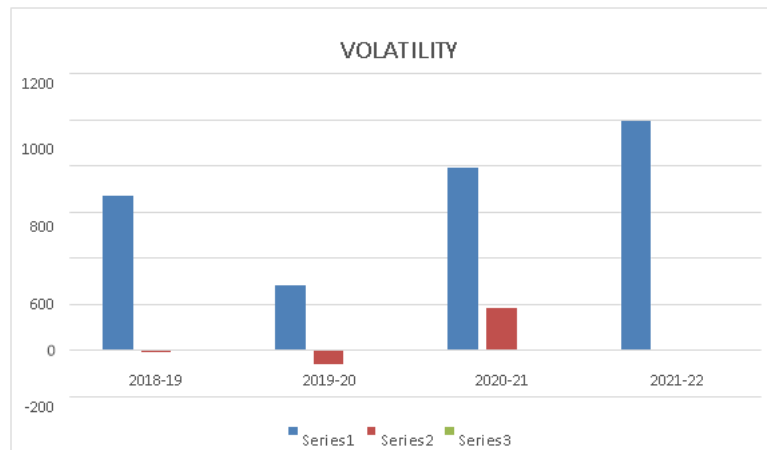
It has been determined that, while comparing the returns from 2018-19 to 2021-22, 2019-20(-57.7306) had the lowest return and 2020-21(183.1744) had the highest return.

Returns on MAHINDRA& MAHINDRA have also been shown to be rather consistent.

Comparing expected return and risk, risk is roughly greater than return.

Volatility		
Year	Price	Volatility
2018-19	673.4	-9.88116
2019-20	284.95	-57.7306
2020-21	795.25	183.1744
2021-22	997.65	-3.44092

By the above we came to how stock fluctuates day to day and we should in the above on yearly basis how it fluctuates.



Interpretation:

The anticipated return and expected risk indexes for the period are obtained from the aforementioned graph, and it is discovered that during the months of 2018-2021, the stocks were below, indicating a buy signal, while the stocks were above, indicating a sell signal. This company was signalling a hold in the area where the hold value suggests that it is not above the sell signal nor below the buy signal.

MARUTHI SUZUKI MOTORS LTD

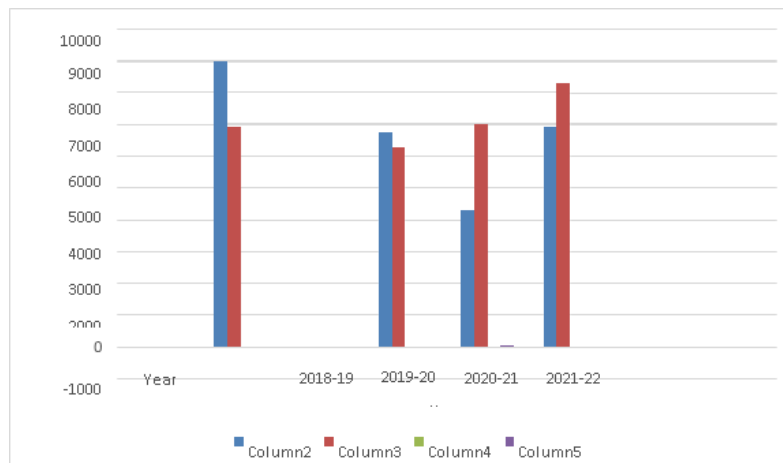
Data taken is opening price, closing price and dividend of previous 4 years (2018-2022) of MARUTHI SUZUKI MOTORSLTD. The formula used is $R = D + (P1 - PO) / PO * 100$

Computation of return of the company MARUTHI SUZUKI MOTORS LTD USING THISFORMULA, $R = D + (P1 - PO) / PO * 100$

FOR YEAR, 2018-2019 $R = 16 + 6935 - 8990 / 8990 * 100 R = -22.6807$ FOR YEAR, 2019-2020 $R = 16 + 6283 - 6731 / 6731 * 100 R = -6.418065$ FOR YEAR, 2020-2021 $R = 16 + 7015 - 4290 / 4290 * 100 R = 63.7995$ FOR YEAR, 2021-2022, $R = 9 + 8314 - 6950 / 6950 * 100 R = 19.75539$

Table 2.1 Computation of return of the company MARUTHI SUZUKI MOTORS LTD

Year	Opening price	Closing price	Dividend	Returns
2018-19	8990	6935	1600%	-22.6807
2019-20	6731	6283	1600%	6.418065
2020-21	4290	7015	1200%	63.7995
2021-22	6950	8314	900%	19.75539
			expected return	13.61403



Interpretation:

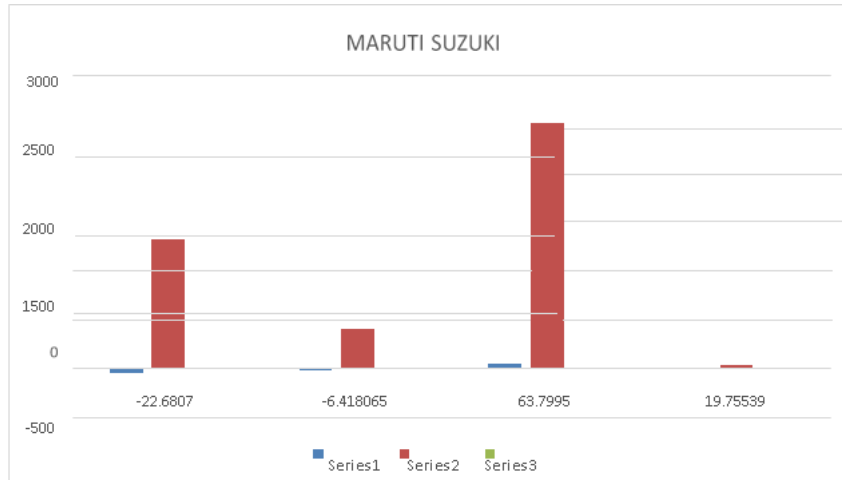
The anticipated return and expected risk indexes for the period are obtained from the aforementioned graph, and it is discovered that during the months of 2018–2021, the stocks were below, indicating a buy signal,

while the stocks were above, indicating a sell signal. This stock was signalling a hold in the between period. What is retain value, which is to not go above or below the sale or purchase signals.

Computation of expected return & expected risk of MARUTI SUZUKI MOTORS LTD

Returns	R-Expected return	(R-Expected return)2
-22.6807	-36.2947	1317.30
-6.418065	-20.0320	401.2848
63.7995	50.1854	2518.58
19.75539	6.14136	37.71630
Expected return= 13.61403	$\sum(R-Expected return)2$	1068.7202

To find variance, from the year 2018-2022 $VARIANCE=(X*0.9275)^2+(X*0.9275)^2+(X*0.9275)^2+- (X*0.9275)^2/n-1$ $V=(16*0.9275)^2+ (16*0.9275)^2+(12*0.9275)^2+- (9*0.9275)^2/n-1$ $V=32.7716667$



Interpretation:

The anticipated return and expected risk indexes for the period are obtained from the aforementioned graph, and it is discovered that during the months of 2018–2021, the stocks were below, indicating a buy signal, while the stocks were above, indicating a sell sign.

This company was signalling a hold in the area where the hold value suggests that it is not above the sell signal nor below the buy signal.

Volatility		
Year	Price	Volatility
2018-19	6935	-22.6807
2019-20	6283	-6.418065
2020-21	7015	63.7995
2021-22	8314	19.75539

Standard Deviation =square root of variance = 5.69887416

Variance	32.7716667
SD	5.69887416

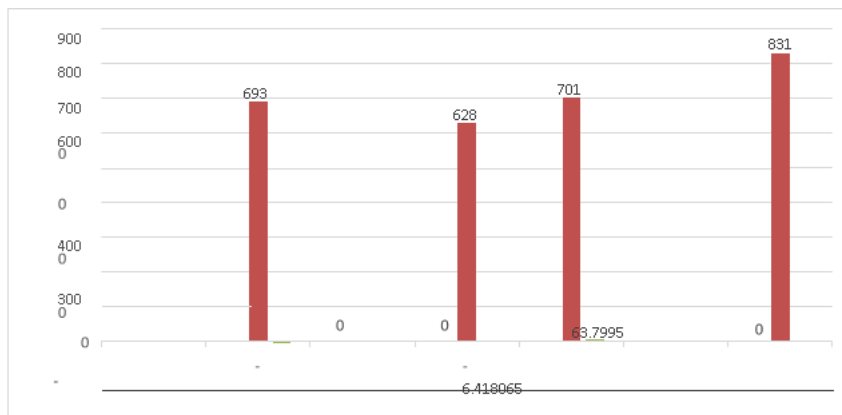
Interpretation:

The Maruti Suzuki Motors Ltd. returns have been calculated.

It has been noticed that the worst return (-22.6807) and the highest return (2020-21) occurred in the respective years. (63.7995). When we compare the returns from 2018-19 to 2021-22, the results for MARUTI SUZUKI MOTORS LTD are not statistically more irregular.

As can be observed, the relationship between expected return and risk and return is inverse.

Graphical Representation of Expected Risk and Expected Return



Interpretation:

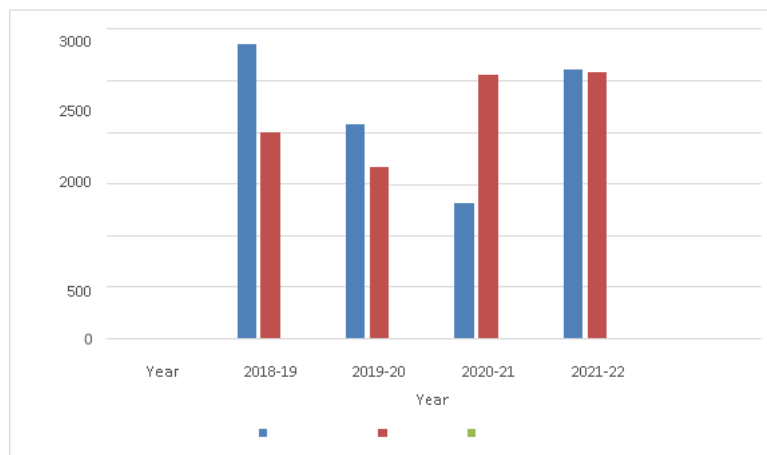
From the above graph the expected return and expected risk Index for the period are taken and found that during 2018-2021 month the stocks were below which indicates to buy signal and stocks were above which indicates to sell signal. This stock were indicating to hold in the of which is in between Where in hold value which indicates not above the sell signal and not below the buy signal. By the above we came to how stock fluctuates day to day and we should in the above on yearly basis how it fluctuates.

EICHER MOTORS LTD

Data taken is opening price, closing price and dividend of previous 4 years (2018-2022) of EICHER MOTORS LTD. The formula used is $R = \frac{D + (P_1 - P_0)}{P_0} * 100$ Computation of return of the company EICHER MOTORS LTD FOR YEAR, 2018-19 $R = \frac{1.1 + (1995 - 2851)}{2851} * 100, R = -29.98596$ FOR YEAR, 2019-20 $R = \frac{1.25 + (1660 - 2079)}{2079} * 100, R = -25.1924$ FOR YEAR, 2020-21 $R = \frac{1.25 + (2556 - 1310)}{1310} * 100, R = 95.2099$ FOR YEAR, 2021-22, $R = \frac{1.7 + (2590 - 2611)}{2611} * 100, R = -0.7391$ Computation of return of the company EICHER MOTORS LTD

Year	OPENING PRICE	CLOSING PRICE	DIVIDEND	RETURN
2018-19	2851	1995	110%	-29.98596
2019-20	2079	1660	125%	-25.1924
2020-21	1310	2556	125%	95.2099
2021-22	2611	2590	170%	-0.7391
			Expected return	9.82311

Graphical Representation of Expected Risk and Expected Return



Interpretation:

The returns calculated for EICHER MOTORS LTD are seen above. It has been highlighted that the year 2018-19 saw the lowest return (29.98596) while the year saw the highest return. The year 2020-21 (95.2099) performs best when we compare the results from 2018-19 to 2021-22 using data that has been seen. The anticipated return and expected risk indexes for the period are obtained from the aforementioned graph, and it is discovered that during the months of 2018-2021, the stocks were below, indicating a buy signal, while the stocks were above, indicating a sell signal. This stock was signalling that it should be held in the range between where the hold value suggests that it should not be above the sell signal or below the buy signal.

Calculation of EICHER MOTORS LTD's Expected Return and Expected Risk

Return	R-Expected return	(R-Expected return) ²
-29.98596	-39.80907	1584.76
-25.1924	-35.01551	1226.085
95.2099	85.3867	7290.88
-0.7391	-10.56221	111.56028
Expected return=9.82311	$\sum(R-Expected\ return)^2=$	2553.321

To find variance, for the year 2018-2022 $VARIANCE = \frac{(X - \bar{X})^2 + (X - \bar{X})^2 + (X - \bar{X})^2 + \dots + (X - \bar{X})^2}{n - 1} = \frac{(1.1 - 9.82311)^2 + (1.25 - 9.82311)^2 + (1.25 - 9.82311)^2 + (1.7 - 9.82311)^2}{4 - 1}$

Interpretation:

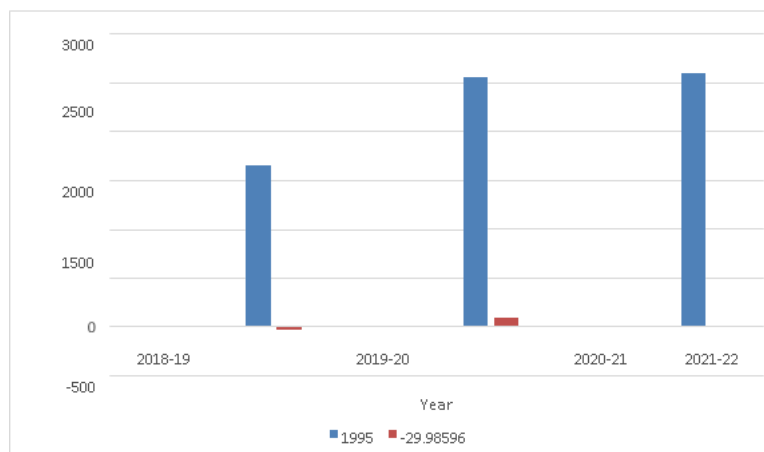
From the above graph the expected return and expected risk Index for the period are taken and found that during 2018-2021 month the stocks were below which indicates to buy signal and stocks were above which indicates to sell signal. This stock were indicating to hold in the of which is in between Where in hold value which indicates not above the sell signal and not below the buy signal. Standard Deviation =square root of variance=0.702068

Variance	0.4929
SD	0.702068

In table it has been observed that, expected return & risk, risk is approximately more of return

Volatility		
Year	Price	Volatility
2018-19	1995	-29.98596
2019-20	1660	-25.1924
2020-21	2556	95.2099
2021-22	2590	-0.7391

Graphical Representation of Expected Risk and Expected Return



Interpretation

From the afore mentioned graph, which shows the expected return and risk indices for the time period, it can be seen that during the months of 2018-2021, the stocks were below, suggesting a buy signal, while the stocks were above, indicating a sell signal. The hold value shows that this business was signalling a hold while it was neither above the sell signal nor below the buy signal. From the afore mentioned, we learnt how stock values fluctuate daily, and we should also study how they do so yearly.

Findings

- Compared to the industry average, Mahindra & Mahindra (28.0304325) presents a higher risk.
- In accordance with observations made by three international organisations.
- The best expected return on investment is provided by MarutiSuzuki Limited (5.6988).
- In line with the conclusions of three multinational corporations.
- Mahindra & Mahindra is predicted to have a lower return (1.830673) and a bigger risk (28.0304325) than other firms.

Suggestions

- Based on the risk and return management of the three international companies that were chosen.
- Since Mahindra & Mahindra Ltd offers a high return with just about 20% risk, it will be recommended for investment.
- Since then, Mahindra & Mahindra Limited has copied it. Furthermore, investing in any of the chosen firms is not advised due to their higher risk and proportionally lower profits.

Conclusions

Investors must strike a balance between the risk and the possible return of the several businesses they are considering if they are to accomplish the goal of maximum return. That will vary from business to business. One of the most crucial methods for assessing the risk and return characteristics of the stocks of various companies is equity analysis. According to my research, Mahindra & Mahindra Ltd. would be the recommended investment due to its ability to manage risk and return.

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