

Case Study- Stock Price

The term stock price refers to the current price that a share of stock is trading for on the market. The stock price of a company depends upon various factors like Market Sentiments News, Fundamental factors, technical factors, etc. These stocks are dynamic in nature and the stock value keeps on changing with the time.

Here we have the day closing price for the last 1 year of three stocks i.e Adani Greens, Idea Vodafone and Maruti Suzuki. You as a Manager of Investor firm wants to invest a big amount in one of these shares. Apply the various measures of Descriptive Stats and analyze these stocks.



Here are some questions you need to answer

Generate the Descriptive Statistics for all the three stocks manually and verify the results using Data Analysis tool. Draw histogram of all the three stocks.

Now based upon the results of Descriptive Stats and histogram, answer the following:

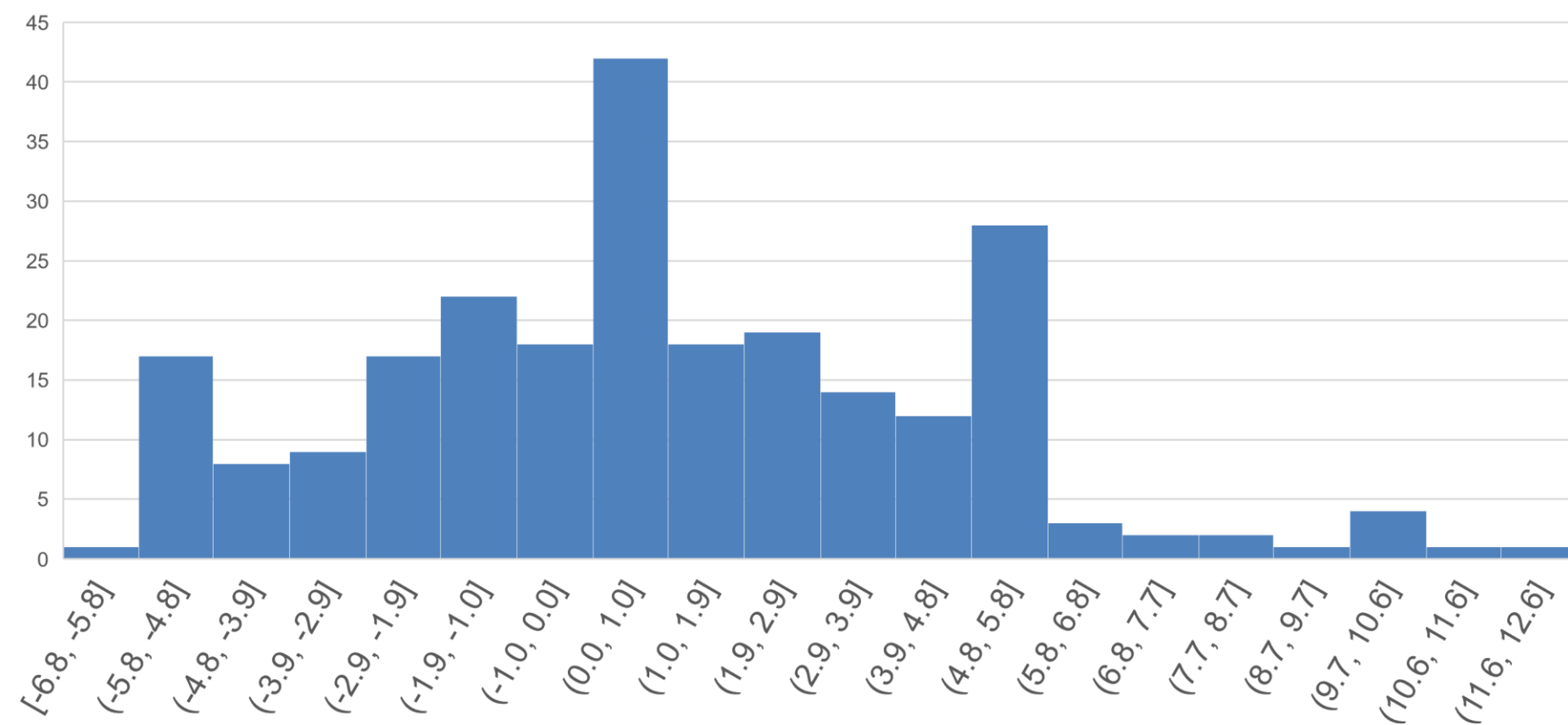
1. Arrange the stock's average returns in ascending order.
2. Which out of these stocks is the riskiest?
3. Which stock has given maximum and minimum return on a day?
4. Which stock has given positive returns on more than 50 %of the time?

Descriptive Stats

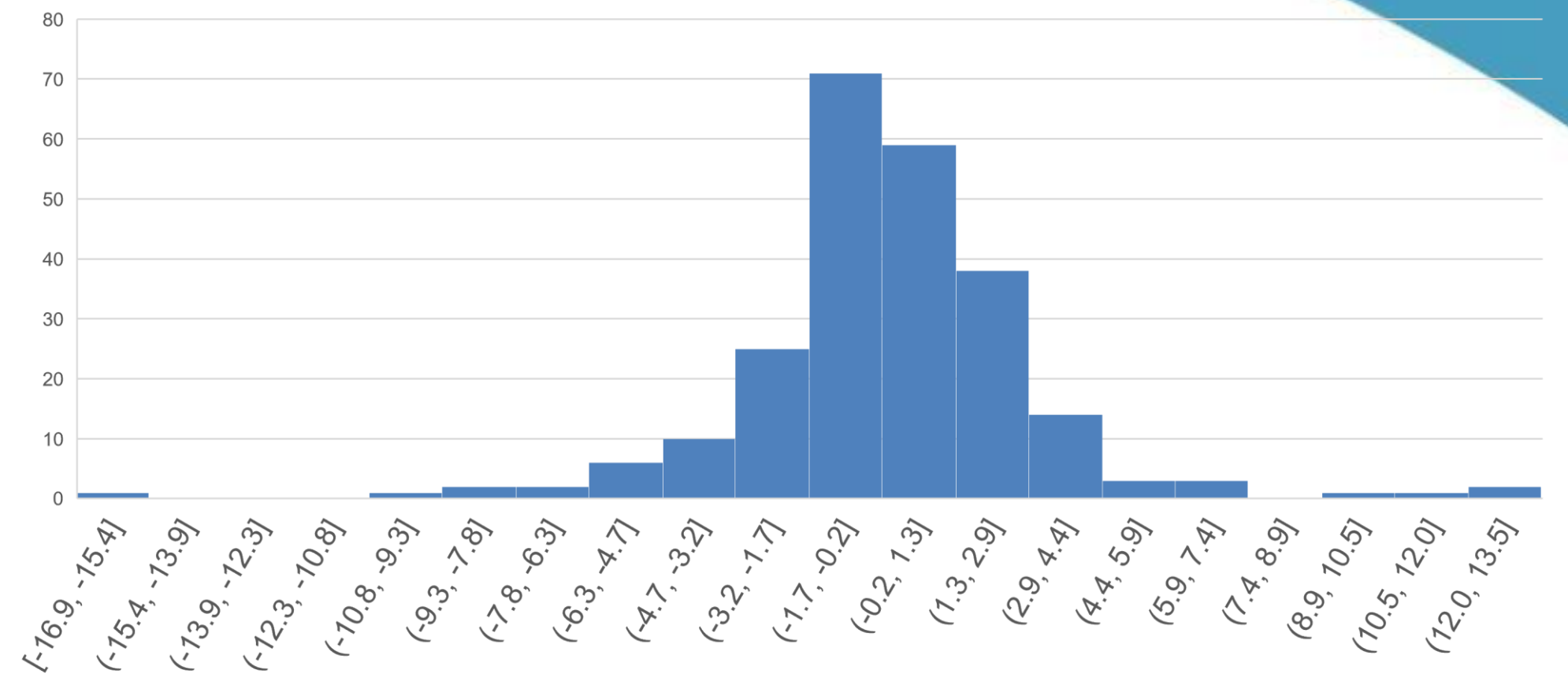
<i>Adani Green Return %</i>		<i>Idea Vodafone Return %</i>		<i>Maruti Suzuki Return %</i>	
Mean	0.915	Mean	0.316	Mean	-0.045
Standard Error	0.233	Standard Error	0.573	Standard Error	0.203
Median	0.710	Median	-0.810	Median	-0.110
Mode	4.990	Mode	0.000	Mode	-0.330
Standard Deviation	3.601	Standard Deviation	8.862	Standard Deviation	3.140
Sample Variance	12.966	Sample Variance	78.527	Sample Variance	9.860
Kurtosis	0.144	Kurtosis	4.706	Kurtosis	6.860
Skewness	0.364	Skewness	0.650	Skewness	0.022
Range	19.320	Range	75.050	Range	30.420
Minimum	-6.760	Minimum	-35.050	Minimum	-16.910
Maximum	12.560	Maximum	40.000	Maximum	13.510
Sum	218.660	Sum	75.600	Sum	-10.850
Count	239.000	Count	239.000	Count	239.000

Histograms

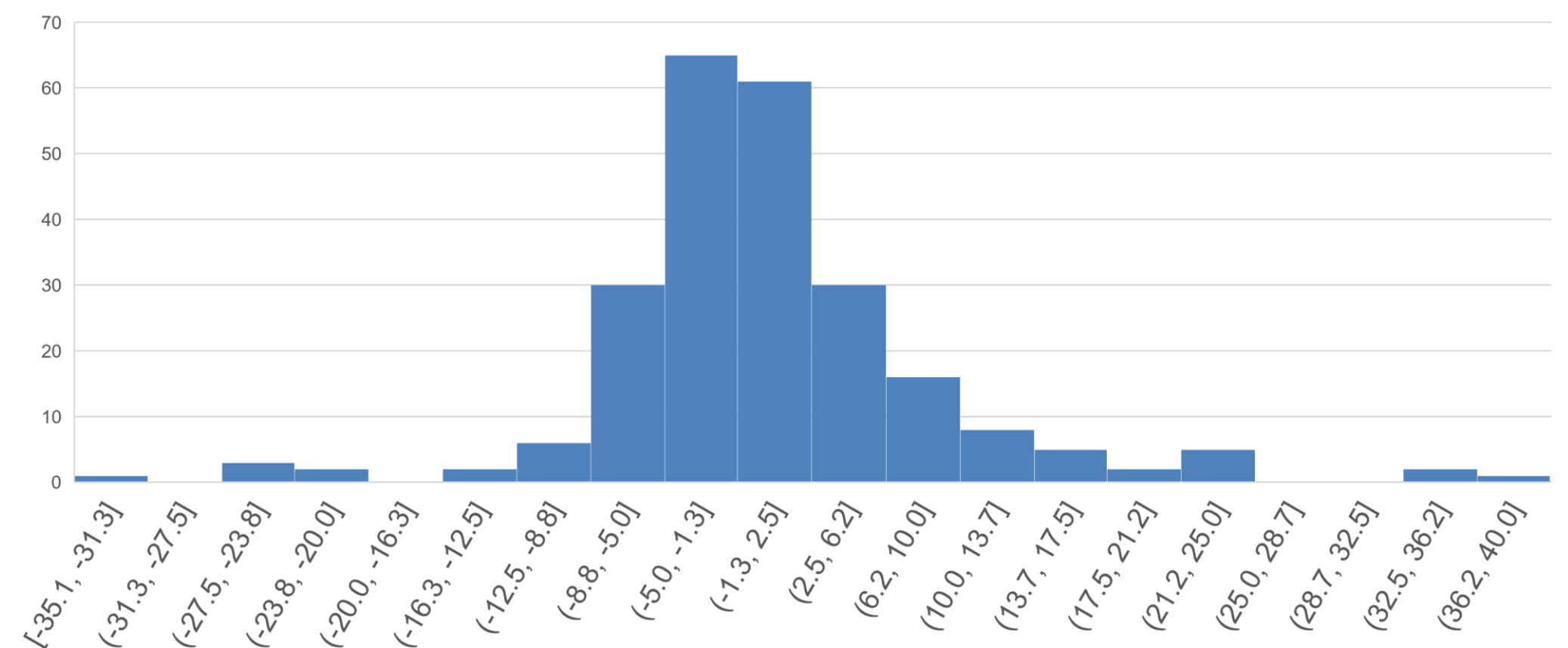
Adani Green Return %



Maruti Suzuki Return %



Idea Vodafone Return %



Arrange the stock's average returns in ascending order.

	Adani Green Return %	Idea Vodafone Return %	Maruti Suzuki Return %
Mean	0.915	0.316	-0.045
Median	0.710	-0.810	-0.110
Mode	4.990	0.000	-0.330

- ❖ $\text{Maruti Suzuki}(-0.045) < \text{Idea Vodafone}(0.316) < \text{Adani Green}(0.915)$
- ❖ On an average Adani Green has given 0.915 %return on daily basis

Which out of these stocks is the riskiest?

	Adani Green Return %	Idea Vodafone Return %	Maruti Suzuki Return %
Range	19.320	75.050	30.420
Variance	12.966	78.527	9.860
Standard Deviation	3.601	8.862	3.140

Risk is Directly Proportionate to Standard Deviation

- ❖ The riskiest stock is Idea Vodafone as it has the highest Standard Deviation among the three stocks
- ❖ Contrary the safest stock is Maruti Suzuki as it has the lowest Standard Deviation among the three stocks

Which stock has given maximum return and minimum return on a day?

	Adani Green Return %	Idea Vodafone Return %	Maruti Suzuki Return %
Max	12.56	40	13.51
Min	-6.76	-35.05	-16.91

Question for Learners!!

What can you interpret after looking at the values of Max and Min for these stocks

- ❖ The maximum return on a day was given by Idea Vodafone Stock (40%).
- ❖ The minimum return on a day was given by Idea Vodafone Stock (-35.05%)

Which stock has given positive returns on more than 50 % of the time?

	Adani Green Return %	Idea Vodafone Return %	Maruti Suzuki Return %
Mean	0.915	0.316	-0.045
Median	0.710	-0.810	-0.110
Mode	4.990	0.000	-0.330

Question for Learners!!

Now based upon all these analysis, have you decided in which stock you want to invest!!

- ❖ Median Value of Adani Green 0.710 which is greater than 0. Therefore Adani Green has given positive returns on more than 50% of the time.