ANALYSIS OF NYSE DATA

2ND PROJECT SUBMISSION IN VIEW OF BUSINESS ANALYTICS NANODEGREE.

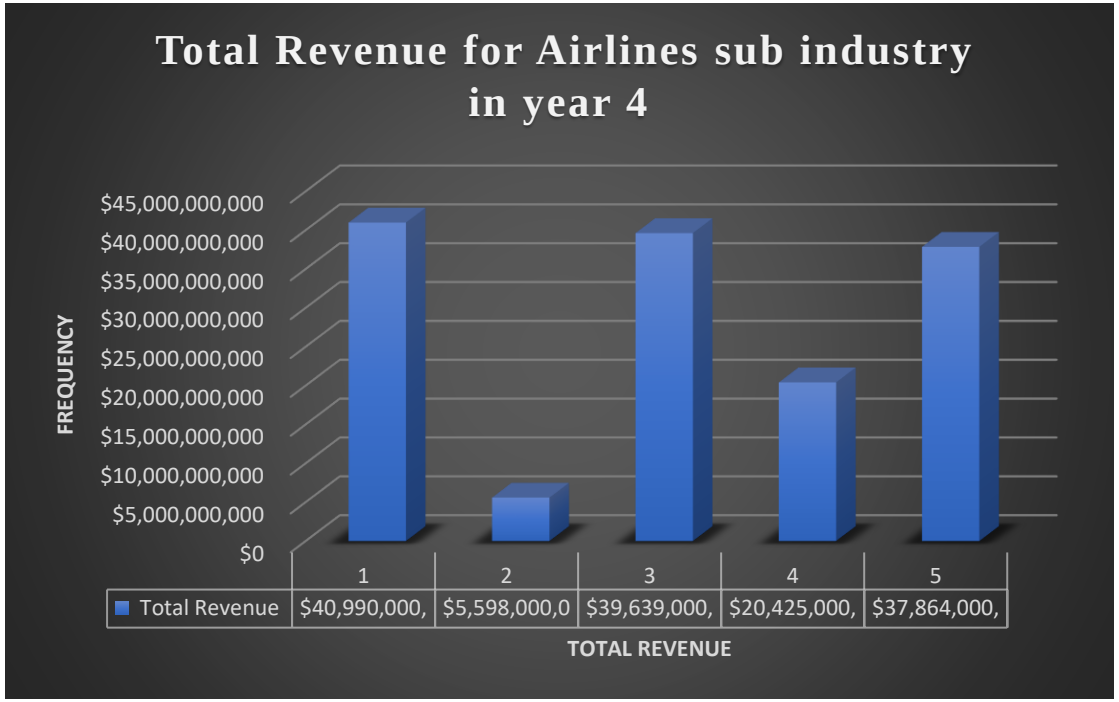
PROJECT OVERVIEW

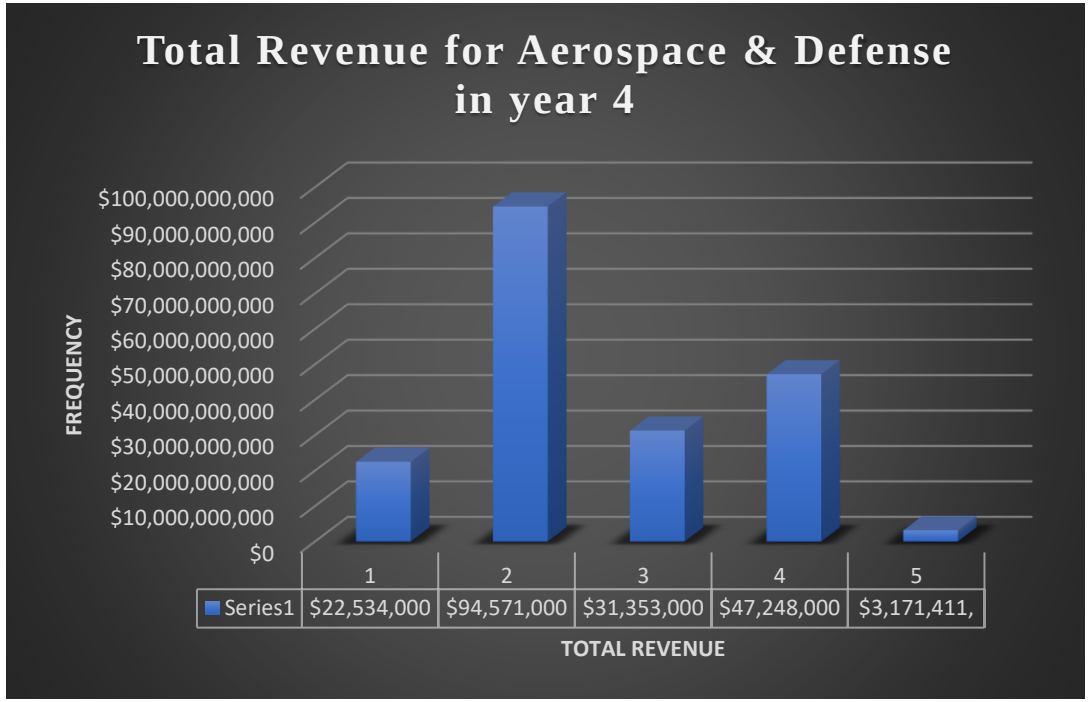
The following data was used for this project.

- Gcis sector: industries
- Gcis sub-industry: (Airlines & Aerospace and Defense)
- Focus is on year 4.
- Visualization via bar chart.

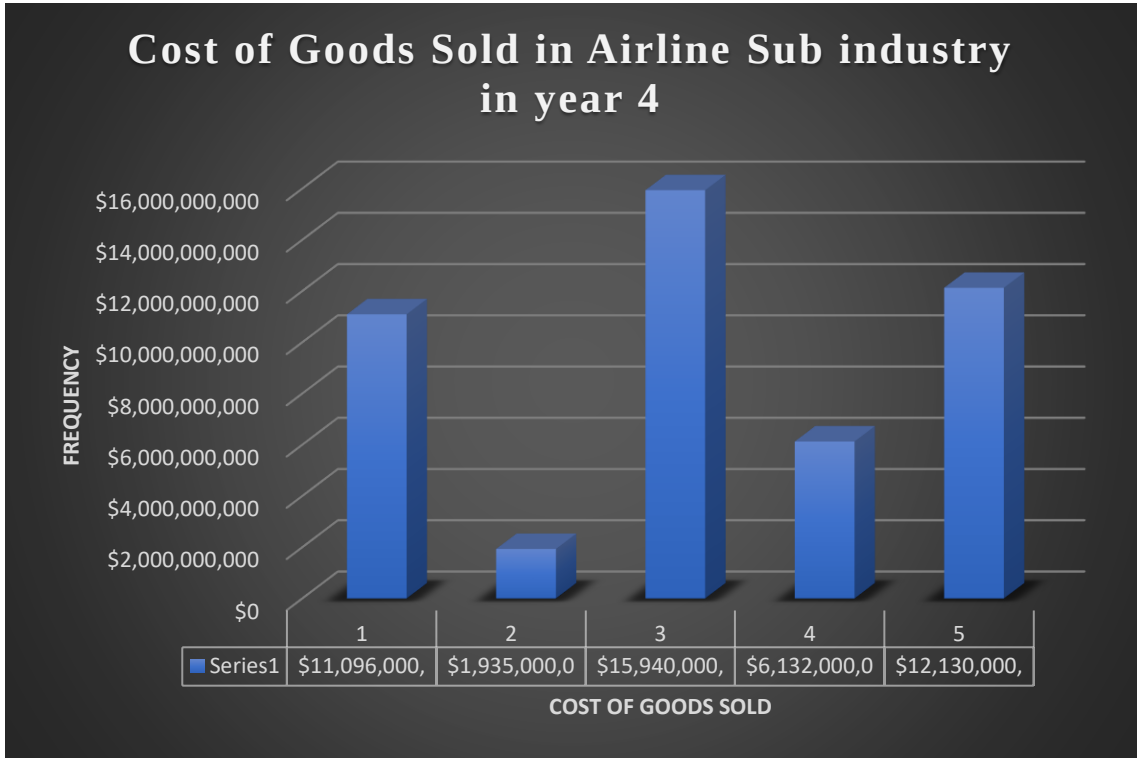
You will find also:

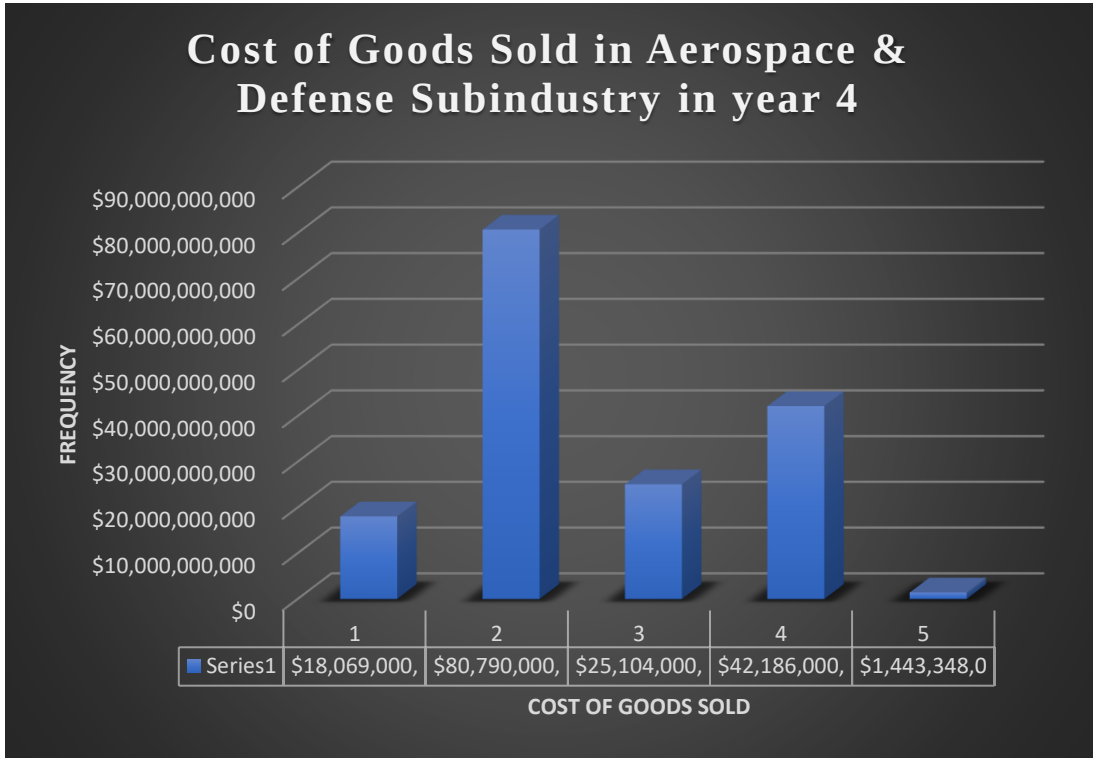
- The measures of central tendency(Mean & Median)
- The measures of spread(Standard deviation & Range)
- Gross Profit
- Operating Margin
- Operating Profit
- Growth Margin
- Revenue Growth





The Two Bar charts represent the Total revenue for Airlines & Aerospace and Defense Subindustry in year 4.
The Figures below were calculated using figures in the project csv file.
The mean total revenue for companies categorized under Aerospace & Defense ($41,086,578,353) was higher compared to mean total revenue for all in Airlines ($26,411,294,118). It looks like companies into Aerospace & Defense have a higher total revenue on the average than all industries under Airlines.
The median revenue value for Aerospace & Defense = ($31,469,000,000) & The median value for Airlines is ($ 37,152,000,000). It looks like companies into Airlines have a higher median revenue than all industries categorized under Aerospace & Defense.
In Aerospace the Mean is higher than the median while in Airlines the Median is higher than the mean.





The Two Bar charts represent the Cost of Goods Sold for Airlines & Aerospace and Defense Subindustry in year 4. The Figures below were calculated using figures in the project csv file.

The mean cost of goods sold for companies categorized under Aerospace & Defense ($34,760,911,059) was higher compared to mean cost of goods sold for all in Airlines ($11,111,235,294). It looks like companies into Aerospace & Defense have a higher total revenue on average than all industries under Airlines.

The median cost of goods sold for Aerospace & Defense = ($25,339,000,000) & The median value for Airlines is ($ 11,096,000,000). It looks like companies into Aerospace & Defense have a higher median revenue than all industries categorized under Health Care.

In both Aerospace & Defense and Airlines the Mean is higher than the median.

MEASURES OF SPREAD

The following insights was gathered from the measures of spread in year 4

- The standard deviation for Aerospace and Defense = $ 3275852454 while the standard deviation for Airlines = $14739485124

  This implies that Airlines have a higher standard deviation than Aerospace and Industry.

- The range for Aerospace and Defense = $94,189,600,000 while the range for Airlines = $36,333,000,000.

  This implies that Aerospace and Defense has a higher range than Airlines.

This that NYSE is spending more funds on Airlines than Aerospace & Industry being that Airlines has a higher standard deviation.

This also indicates that the data points are spread out over a large range of values.

PROFIT & LOSS STATEMENT

Income Statement						
			Historical			
			Year 1	Year 2	Year 3	Year 4
Revenue			$ 24,855,000,000	$ 26,743,000,000	$ 42,650,000,000	$ 40,990,000,000
COGS			$ 10,499,000,000	$ 11,019,000,000	$ 15,620,000,000	$ 11,096,000,000
Gross Profit			$ 14,356,000,000	$ 15,724,000,000	$ 27,030,000,000	$ 29,894,000,000
Sales, General and Admin			$ 12,977,000,000	$ 12,913,000,000	$ 20,686,000,000	$ 21,275,000,000
Other operating expenses			$ 845,000,000	$ 853,000,000	$ 1,295,000,000	$ 1,364,000,000
Research and Development			$-	$-	$-	$-
Total operating expenses			$ 13,822,000,000	$ 13,766,000,000	$ 21,981,000,000	$ 22,639,000,000
Operating income/ EBIT			$ 534,000,000	$ 1,958,000,000	$ 5,049,000,000	$ 7,255,000,000

From the above visual we can state the following:

- Gross profit is on the increase for the 4 years. With its starting In year 1 to be **14.3million** and **29.8million** in year 4.
- The operating income has a massive increase over the four years, 50% increase in year 2, and over a 100% increase in year 2 and 4.
- Basically, all the variables were on the increase across all the years.

Note: All Figures were calculated from the NYSE spreadsheet