Creating interactive NYSE Financial Statements with advanced Excel

This article describes how to analyze historic NYSE financial data in Excel and use advanced functions + visualizations to glean insights. The data subset is drawn from a large Kaggle dataset containing S&P 500 companies. Examples of advanced functions learned from this project include filtering through IF statements, INDEX, MATCH, dropdowns, data validation, and VLOOKUP. Additional visualizations and summary statistics were used to present business metrics and answer questions.

Questions we want answers to

- Determining the profit and loss statements of companies in the energy sector
- Evaluating the change in revenue of the energy sector between 2015 and 2014

My dataset: NYSE financial data

A subset from Kaggle NYSE from 2016 was used and further filtered to answer the questions above.

3 Step Approach: Gather Data, Clean, Get Insights

The following functions were used to clean and organize the data:

```
=DATE() used to partition out the year and group companies by year
```

```
=IF() to replace NULL values with a desired value
```

To determine the profit and loss statements the following equations were used:

```
Total Operating Expense = Selling, General and Administrative (SGA) expenses + Operating Expenses
```

```
Operating Income = Gross Profit - Total Operating Expenses
```

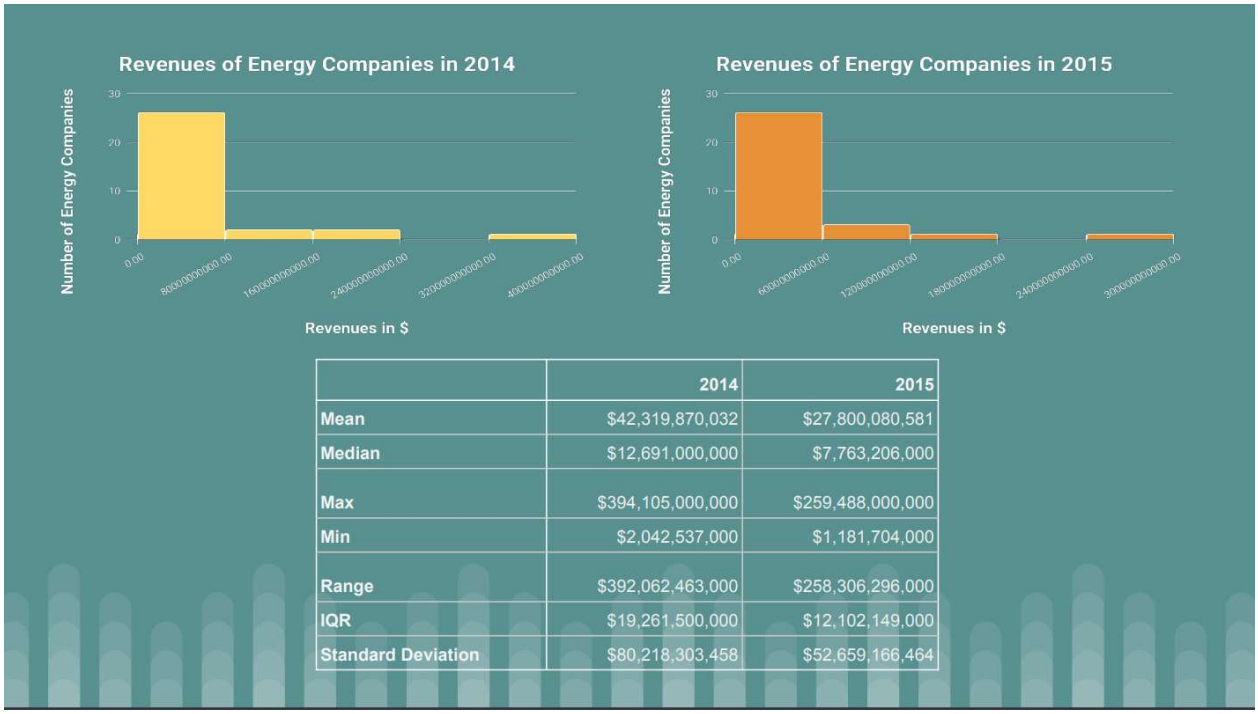
```
Net Income = Operating Income - (Interest and Taxes)
```

The following functions were used to determine the summary statistics of the dataset:

=AVERAGE() to determine mean for summary statistics
=MEDIAN() to determine the median
=MODE() to determine the mode

=STDEV.P() to determine the standard deviation
=QUARTILE() to determine the quartiles and InterQuartile Range (IQR)
=MIN(), =MAX() to determine the range of the data

The following insights and visualizations were made as a result of the analysis:



	2014	2015
Mean	$42,319,870,032	$27,800,080,581
Median	$12,691,000,000	$7,763,206,000
Max	$394,105,000,000	$259,488,000,000
Min	$2,042,537,000	$1,181,704,000
Range	$392,062,463,000	$258,306,296,000
IQR	$19,261,500,000	$12,102,149,000
Standard Deviation	$80,218,303,458	$52,659,166,464

Lessons Learned

The biggest lesson learned through this project is just seeing how powerful Excel is in creating insights from small data sets. Given that the data is organized properly and is comprehensible, lots of data can be filtered, organized, and presented in an efficient manner.