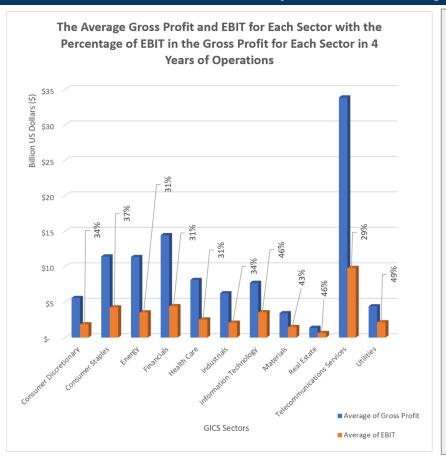
How much the operational expenses affect the total profitability of each sector?



The table shows the average of gross profit and EBIT for each sector implying how much the gross profit and EBIT for the average company in this sector based on the data provided.

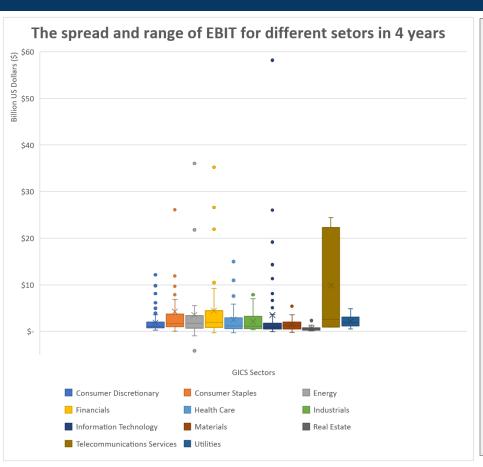
It is noticed from the stacked bars chart that the average EBIT percentage range between 29% and 49% of total gross profit. In all sectors combined, the average EBIT portion in the gross profit is around 35%. A smaller percentage of EBIT indicates that operational costs take a larger percent in the average company gross profit in that sector compared to other sectors. Larger percentage of EBIT indicate that the operational expenses takes less from the overall gross profit.

The telecommunication services has the highest gross profit but most of it, around 71%, is operational expenses, which is the highest among all sectors. In the other hand, utilities sector has the lowest operational expenses with around 49% of EBIT remaining after the operational expenses cost.

The standard deviation (SD) for the gross profit of each sector was calculated, and it was apparent that more volatile sectors have higher SD values. For instance, the energy sector SD is around 24\$ Billion, and the financial sector SD is around 23\$ billion. In contrast, stable sectors have lower SD such as the utilities sector with SD value of 2.5 billion \$, or the real estate sector with SD value of 0.9 billion \$.

It seems that the sectors with lower SD values are more safe to invest but with lower profits expected than the sectors with high SD values that generate more profits but are more risky in the same time. In the chart we could see that sectors with higher gross profit SD have lower EBIT percentage in total gross profit since the operational expenses are fluctuating more than in more stable sectors.

How much EIBIT vary for companies in each dector?



The Boxplot shows the spread of EBIT data of different sectors.

In most sectors, the mean is placed higher than the median indicating a right-skewed distribution, which mean there are more company that have lower EBIT than companies than with high EBIT. The amount of outliers and wide range of some sectors indicate that the mean is probably affected by few companies with very high EBIT. This can be seen clearly in the telecommunication services sector, where the count of the companies in data is low, but the range is large and the mean is way far from the median, more than other sectors.

In the other hand, we can see utilities, real estate and materials sectors have their mean closer to the median with a smaller range and fewer outliers. This indicate a distribution closer to a normal distribution, meaning there are a variety of companies that are centered around closer values of EBIT.