

Analyze NYSE Data Project

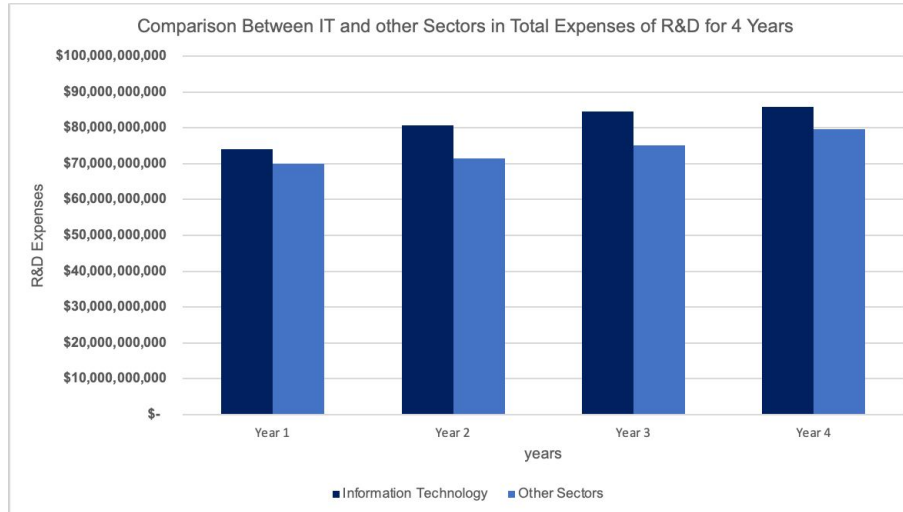
Business Analytics Nanodegree.

How Information Technology Sector Research and Development Expenses Changed Over the Years?

Part of the companies operating expenses goes toward R&D to develop or establish new methods to increase revenue, as shown both Figure is positively right-skewed, to thus it Indicates that over the years IT R&D expenses exceed compare to other sectors combined, the IT R&D expenses registered a stable 10% growth over the years. and 5% differences from other sectors.

The mean of IT R&D expenses 81B\$ compare to the mean of other sectors combined 74B\$, however; the median of IT sector is 82B\$ which in higher than the mean, but the median of other sectors combined is 73\$ which is less than the mean.

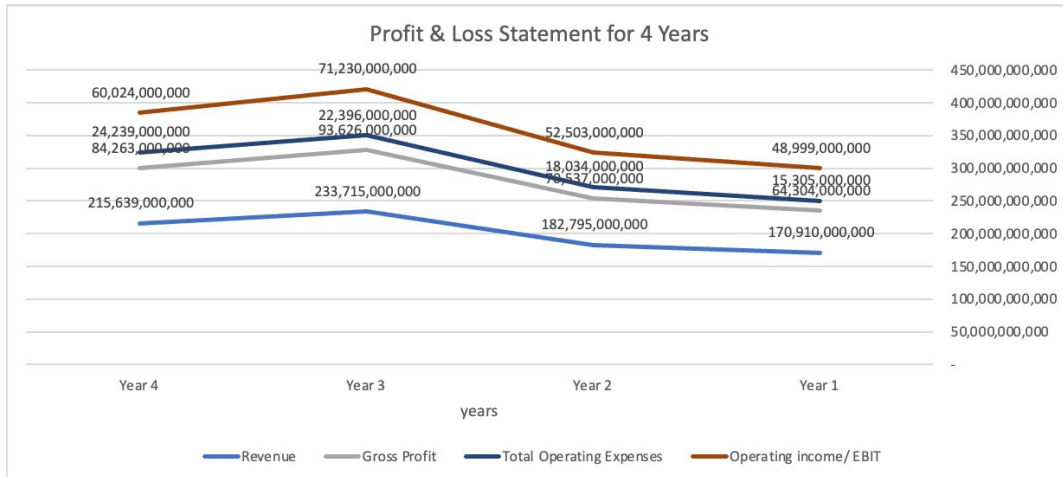
The Standard deviation of R&D in the IT sector was 5B\$ while other sectors had a Standard deviation 4B\$, however; if we take a look to the range we can see that the range of R&D expenses in the IT sector is 11B\$, compare to the range of R&D expenses in other sectors combined 9B\$.



Profit and Loss Statement for AAPL Company

Profit & Loss Statement				
	Historical			
	Year 1	Year 2	Year 3	Year 4
Revenue	170,910,000,000	182,795,000,000	233,715,000,000	215,639,000,000
Gross Profit	64,304,000,000	70,537,000,000	93,626,000,000	84,263,000,000
Total Operating Expenses	15,305,000,000	18,034,000,000	22,396,000,000	24,239,000,000
COGS	106,606,000,000	112,258,000,000	140,089,000,000	131,376,000,000
Sales, General and Admin	10,830,000,000	11,993,000,000	14,329,000,000	14,194,000,000
Research and Development	4,475,000,000	6,041,000,000	8,067,000,000	10,045,000,000
Other Operating Expenses	-	-	-	-
Operating income/ EBIT	48,999,000,000	52,503,000,000	71,230,000,000	60,024,000,000

As shown the Gross Profit had increased by 10% in the 2nd year, while the 3rd year registered the highest Gross Profit among all years with a 31% increase, unfortunately in the 4th year the Gross Profit decreased by 10%.



The Operating Income for AAPL has a direct relationship with the Gross Profit, in the 2nd year the Operating Income increased by almost 10% while the 3rd year registered the highest Income with a 35% increase, however; when the Gross Profit decreased in the 4th year the Operating Income decreased as well.

Profit and Loss Forecast Statement of AMZN

The Profit and Loss Forecast Statement of AMZN for the next couple of years, Indicates an increase of 23% in total Revenue in the best case scenario for the 5th year and 24% for 6th year, and 21% in the weak case scenario for the 5th year and 22% for the 6th year.

Moreover; the P&L Forecast Statement Indicates an increase of 32% in Gross Margin in the best-case scenario for the 5th year and 33% for the 6th year, 30% in the weak-case scenario for the 5th year, and 31% for the 6th year.

The Operating Margin is expected to increase as well by 3% in the best case scenario for the 5th year and 4% for the 6th year, and by 1% in the weak case scenario for the 5th year and 2% for the 6th year.

Profit and Loss Forecast Statement of AMZN						
	Forecast					
	Year 5			Year 6		
	Best Case	Base Case	Weak Case	Best Case	Base Case	Weak Case
Revenue	167,651,659,293	166,291,789,293	164,931,919,293	208,365,971,200	205,012,938,014	201,687,102,228
Gross Profit	54,001,785,070	51,900,843,434	49,827,099,197	69,199,812,574	66,036,117,161	62,947,970,912
Operating Income / EBIT	4,344,569,515	2,646,411,590	975,451,066	7,483,310,692	5,312,759,589	3,209,701,977
Revenue Growth	23%	22%	21%	24%	23%	22%
Gross Margin	32%	31%	30%	33%	32%	31%
Operating Margin	3%	2%	1%	4%	3%	2%