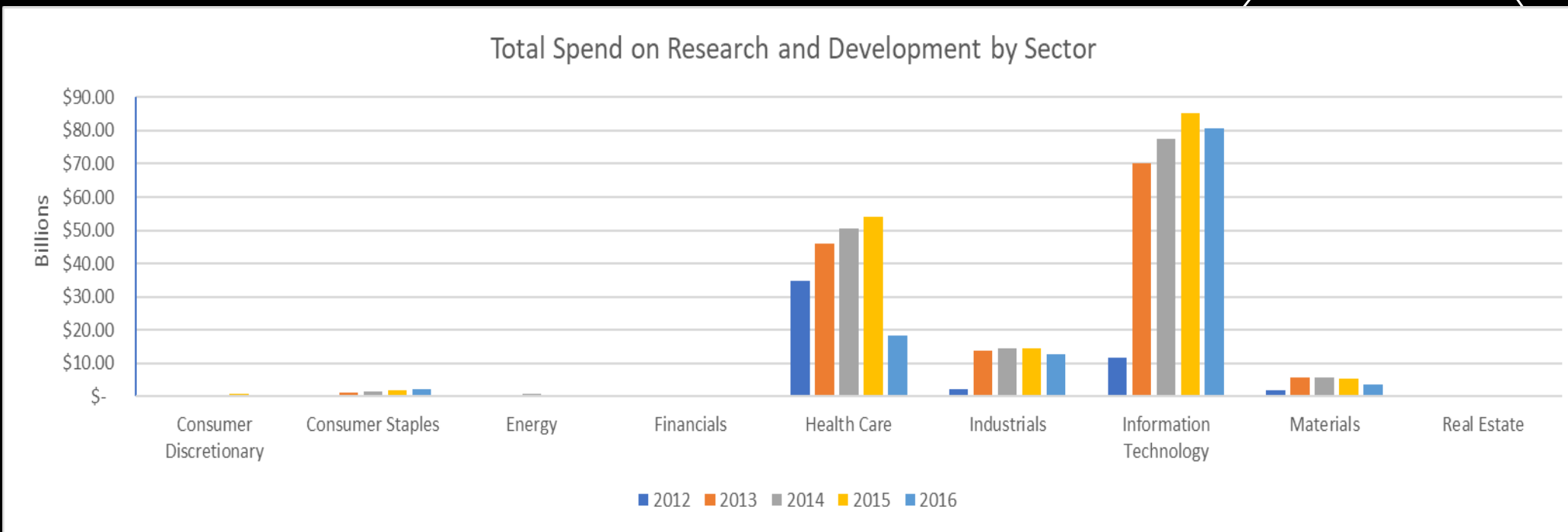




ANALYZING NYSE DATA

Nolawi Adugna

Which GICS sector spends more in research and development YOY?



- The graph shows spending on research and development by sectors from the year 2012 to 2016, we see that Information Technology and Health Care are the big spenders; on average, the information technology sector has spent 65 billion dollars, whereas the health care sector has spent close to 41 billion dollars.
- The rest of the sectors have spent less than 12 billion dollars, and some sectors like telecommunication services and utilities showed they did not spend anything on R& D.
- The average growth rate in spending year over year is higher for sectors like consumer staples at 297%, industrials at 120%, and information technology at 131%. And on the other hand, we see a decline in spending for sectors like consumer discretion (-19%), real estate (-16%), energy (-10%), financials (-4%), and health care (-4%).

Research and Development Spend by Sector from the Year 2012 - 2016						
GICS_Sector	2012	2013	2014	2015	2016	Grand Total
Consumer Discretionary	\$ 526,970,000.00	\$ 572,514,000.00	\$ 617,677,000.00	\$ 669,987,000.00	\$ -	\$ 2,387,148,000.00
Consumer Staples	\$ 100,100,000.00	\$ 1,218,147,000.00	\$ 1,633,453,000.00	\$ 1,981,977,000.00	\$ 2,317,295,000.00	\$ 7,250,972,000.00
Energy	\$ -	\$ 571,235,000.00	\$ 628,905,000.00	\$ 482,104,000.00	\$ 394,269,000.00	\$ 2,076,513,000.00
Financials	\$ -	\$ 62,630,000.00	\$ 61,800,000.00	\$ 60,200,000.00	\$ 55,500,000.00	\$ 240,130,000.00
Health Care	\$ 34,767,158,000.00	\$ 45,809,086,000.00	\$ 50,672,000,000.00	\$ 54,144,495,000.00	\$ 18,225,746,000.00	\$ 203,618,485,000.00
Industrials	\$ 2,365,750,000.00	\$ 13,893,312,000.00	\$ 14,446,831,000.00	\$ 14,318,756,000.00	\$ 12,675,100,000.00	\$ 57,699,749,000.00
Information Technology	\$ 11,528,676,000.00	\$ 70,187,706,000.00	\$ 77,563,832,000.00	\$ 85,193,326,000.00	\$ 80,565,097,000.00	\$ 325,038,637,000.00
Materials	\$ 1,881,632,000.00	\$ 5,744,384,000.00	\$ 5,675,050,000.00	\$ 5,445,772,000.00	\$ 3,751,000,000.00	\$ 22,497,838,000.00
Real Estate	\$ 32,000,000.00	\$ 65,210,000.00	\$ 27,000,000.00	\$ 24,000,000.00	\$ -	\$ 148,210,000.00
Telecommunications Services	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Utilities	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Grand Total	\$ 51,202,286,000.00	\$ 138,124,224,000.00	\$ 151,326,548,000.00	\$ 162,320,617,000.00	\$ 117,984,007,000.00	\$ 620,957,682,000.00

Growth Rate of Research and Development Spend YOY						
GICS_Sector	2013	2014	2015	2016	Mean	
Consumer Discretionary	9%	8%	8%	-100%	-19%	
Consumer Staples	1117%	34%	21%	17%	297%	
Energy	-	10%	-23%	-18%	-10%	
Financials	-	-1%	-3%	-8%	-4%	
Health Care	32%	11%	7%	-66%	-4%	
Industrials	487%	4%	-1%	-11%	120%	
Information Technology	509%	11%	10%	-5%	131%	
Materials	205%	-1%	-4%	-31%	42%	
Real Estate	104%	-59%	-11%	-100%	-16%	
Telecommunications Services	0%	0%	0%	0%	0%	
Utilities	0%	0%	0%	0%	0%	

- The average growth rate in spending year over year is higher for sectors like consumer staples at 297%, industrials at 120%, and information technology at 131%. And on the other hand, we see a decline in spending for sectors like consumer discretion (-19%), real estate (-16%), energy (-10%), financials (-4%), and health care (-4%).