

Industry Analysis

Group 2

Industry: Electronic Computer Manufacturing

Company: Apple Inc.

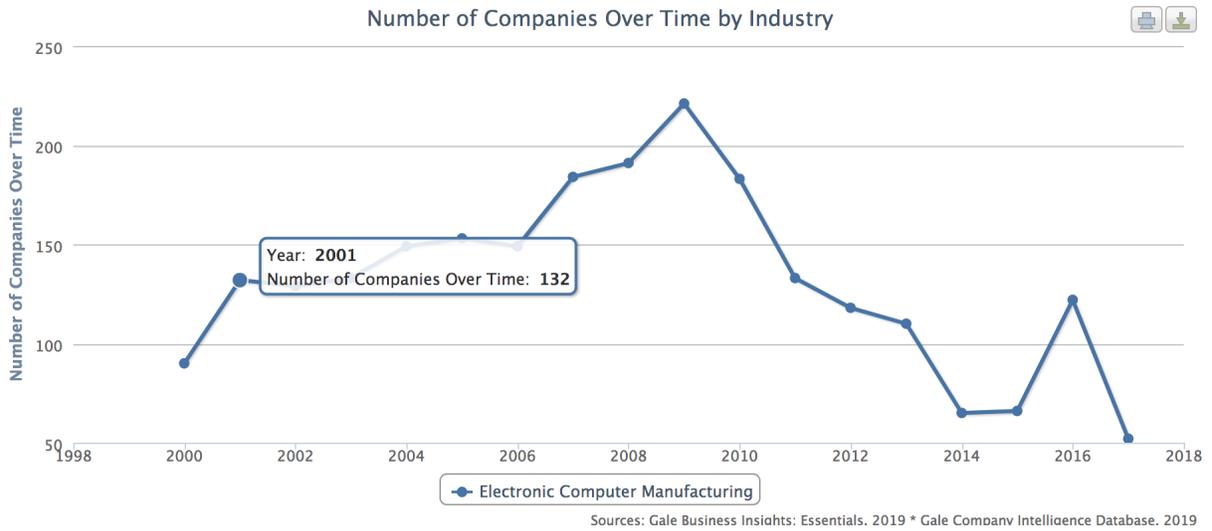
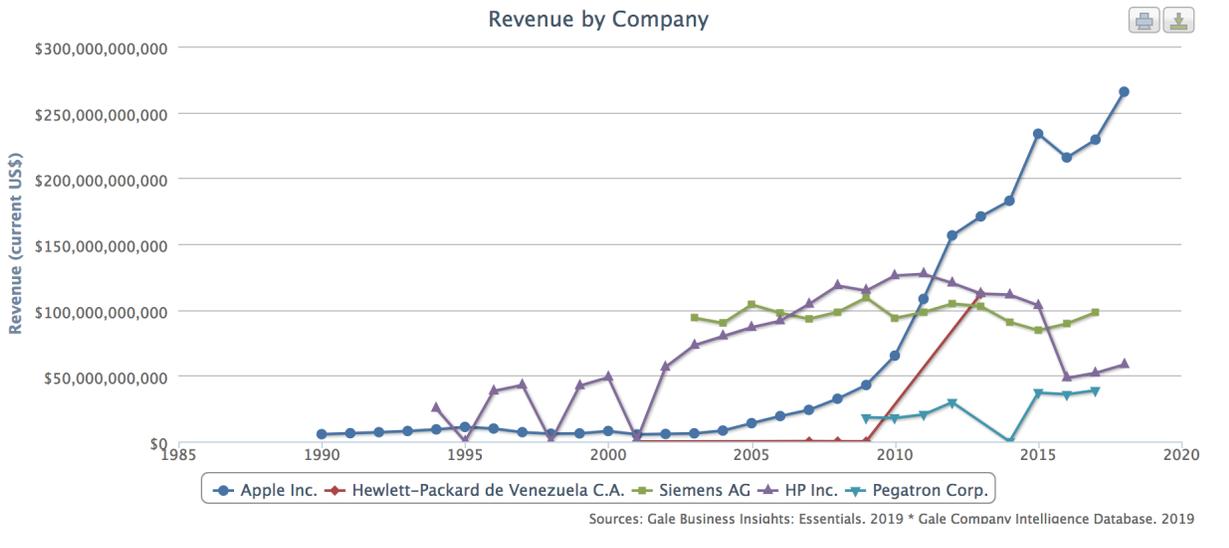
Emilye Webb, Maddie Campbell, Christian Todd

The Electronic Computer Manufacturing Industry began in the 19th century when the first digital computer, the Analytical Engine, was designed and it influenced the first digital mechanical computer. This was the beginning of a computer revolution that would someday change the world. The ENIAC was completed in 1946 and became the first general-purpose electronic computer (Electronic Computer Manufacturing). By the beginning of the 1960s, the government, some businesses and scientists thought that the computer was reliable and a very adequate tool for many areas of business. Electronic computers come in “mainframes, personal computers, workstations, laptops and computer servers” (Electronic Computer Manufacturing). There are computers such as digital computers and analog computers and the industry is not stopping there. The industry is continuing to grow and the things that have been designed are just a little taste of what is to come in the coming years (Electronic Computer Manufacturing).

The Electronic Computer Manufacturing Industry mainly focuses on personal computers. “Personal computers are single-user, self-contained units” (Electronic Computer Manufacturing). Laptop and notebook computers are also included in this industry. Although they mainly focus on personal computers, many companies make monitors, printers, storage devices, terminals and keyboards to go along with different computers as well (Electronic Computer Manufacturing). Within the industry environment, there are many factors that are evaluated each day and are very important to the success of the industry.

There are 52 companies in the Electronic Computer Manufacturing Industry and Apple Inc. is the number one company in the industry with a revenue in 2018 of 265,595,000,000. Hewlett-Packard de Venezuela C.A. had a revenue of \$112,298,000,000 in 2013 and right behind them is Siemens AG with a revenue of \$98,125,150,000 in 2018 (Electronic Computer Manufacturing). Apple Inc. has dominated the industry since the Apple I came out in 1976 with the Apple II coming out shortly after in 1977. The Apple I was sold for around \$666.66 and the current Macbook Pro is selling anywhere from \$1,299.99 to \$4,299.99. The sales of the Macbook Pro is part of the reason Apple Inc. is dominating the industry with such a high

revenue. The graph below shows the revenues from the top companies in the industry from about 1990 until now.



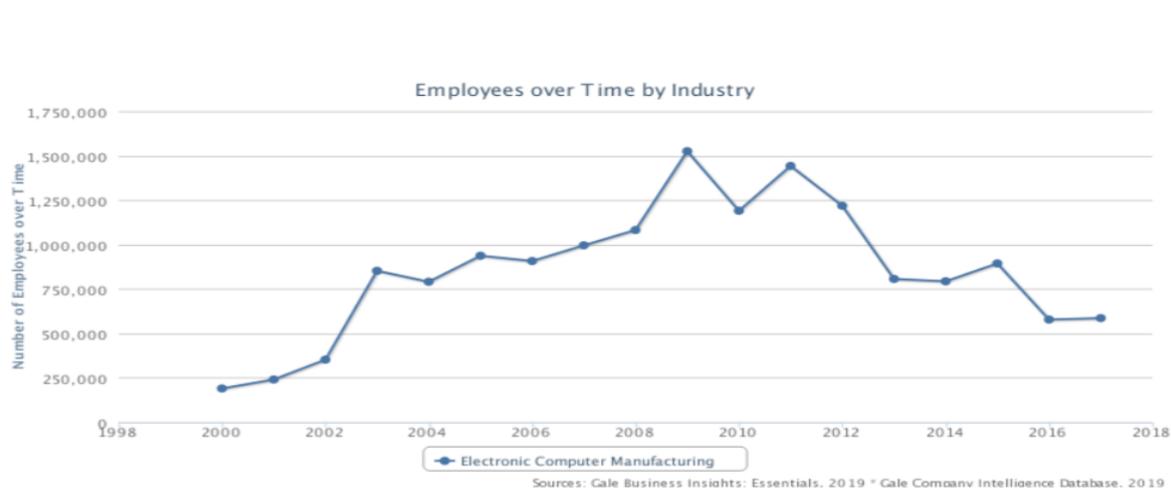
Source of Graphs: Electronic Computer Manufacturing

There are a total of 586,232 employees in the industry as of the end of December 2018. Of those half a million employees, 132,000 of them work for Apple full-time (Competitors). The graph below shows how the total amount of employees has fluctuated over the last 20 years. In

2009, the industry had over 1.5 million employees. The amount of employees has gone down by almost 1 million in the past 10 years. We believe the amount of employees in this industry has going down because of the drastic change and need for computers. Computers have been revolutionized and are ultimately taking the spot of some employees by doing their work for them.

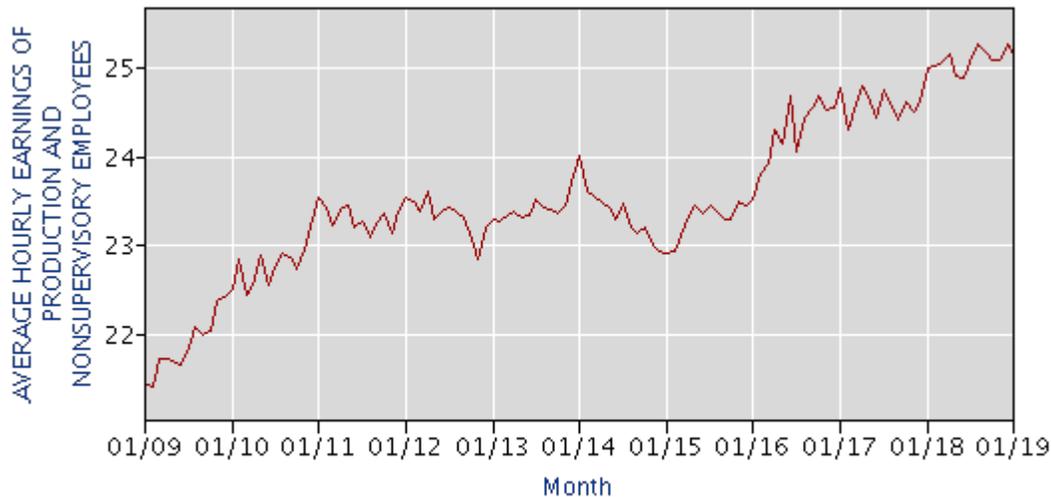
Source of Graph: Electronic Computer Manufacturing

The hourly wage of the production and nonsupervisory employees has gone up around \$4 since 2009 to 2019. The CEO of Apple Inc. has a salary of \$3,000,000 and the COO and



Senior Vice President have a salary of \$1,000,000. The difference between key executives and production workers is incredible. The hourly wage in January of 2009 was \$21.47 and now the hourly wage in January of 2019 is around \$25.15 (Bureau of Labor and Statistics Data). The hourly wage is going up slowly but surely because the need for these workers is so significant and the work that these employees do is needed to keep the industry and companies moving in a positive direction. The graph below shows how the hourly wages have steadily increased over the past 10 years.

Source of Graph: Bureau of Labor and Statistics Data



This industry manufactures things such as “mainframes, servers, personal computers, workstations and mobile PCs” (MarketResearch.com). People that shop in this industry are businesses who need different computers for their work and offices as well as people who just want a mobile personal computer. “Demand is tied to consumer and business income” (MarketResearch.com). There are many things that go into account when making a product that will sell. Companies want to make money and in this industry, you have many competitors who are making the same products as you are. Apple Inc.’s two biggest competitors are Dell Technologies and Intel Corporation. All three of these are large companies. “Large companies have economies of scale in purchasing and production. Small companies can compete successfully by specializing in certain products or by developing superior technology” (MarketResearch.com). Apple, Dell, and Intel are all large enough companies that they use economies of scale in purchasing and production so they do not have to just focus on one particular product.

The graph below shows the changes of stock prices over the past 5 years compared to Dell Technologies and Intel Corp. All three companies are in the same industry, but their stock

prices are all very different. As of February 2019, Apple Inc. stock price is at \$170.42, Dell Technologies is at \$55, and Intel Corp. is at \$51.66 (Competitors).



Source of Graph: Competitors

Within the Electronic Computer Manufacturing Industry, economic growth is constantly being shifted. There are times of rapid, successful growth, as well as times of downfall. The creation of computers began in the 1940s, paving a road of technology that would soon change the world. As the 1950s approached, government, businesses, and research communities began to realize that these computers were very dependable tools to use for several different tasks. Throughout the 1960s, computers were making rapid growth. The changes in technology, such as computer speed and memory, created a brand new chapter in the industry. The first businesses to step foot into the market, Wang, Sperry, International Business Machines, etc., succeeded by creating systems that made it impossible for customers to switch to a competitor's system. Throughout the 1980s, the demand for the the industry grew tremendously, because businesses spent millions of dollars to computerize their company's research, management, manufacturing, etc. Nearing the end of the 1980s, several companies

that led the industry endured extreme financial downfall, causing most companies to shift their focal point.

When the twenty-first century approached, the economy in the United States was weak, causing the industry to struggle. Shipment values took a dive in 2001, affecting all segments of the computer industry. At this time, customers were lacking for a number of reasons, for example, after the September 11th terrorist attack, consumers took a step back due to the lack of confidence. The price competition was at an all time in 2002, and several manufacturers were selling computers and laptops for under a thousand dollars for complete systems. The PC section of the industry began to slow, because consumers were less interested in the PC aspect and more concerned with the new wireless products. When the recession of 2008-2009 occurred, sales took a plunge because consumers used what they previously had in order to pass through this economic downfall.

A huge competition emerged in 2010 when Apple, Inc. introduced their iPad to the market. Soon after, Dell introduced their Streak Tablet PC, but the new product was selling for only \$99. Because of the tough competition with the iPad, Dell discontinued the Streak Tablet in 2011. In 2014, PC sales had decreased for the seventh quarter in a row, causing the computer industry to decline. Manufacturers of the computer industry came to the conclusion that iPads, tablets, and smartphones have won over consumers more so than PCs (Electronic Computer Manufacturing).

In the graph below, it is obvious that Apple, Inc. began to surpass the other companies in 2010 when the iPad was introduced. When Apple, Inc. ventured to different industries, instead of existing in only the Electronic Computer Manufacturing Industry, they completely overwhelmed their competition, making it extremely difficult for them to be beat.



Source of Graph: Electronic Computer Manufacturing

Within the Electronic Computer Manufacturing Industry, there are several driving factors of change that exist. For one, the economic state has a major effect on the industry, because when consumers are low on income, they are less likely to purchase new products. On the other side of that, it is difficult for companies to be successful when they are not selling products. Another driving force for change that exists is competition. Companies are constantly changing and innovating due to the desire to be better and more successful than their competition, and this is what keeps the industry alive.

When it comes to the strengths of competitive forces, there is five areas that need to be evaluated. In order to do so, Porter's five forces can be used. Porter's five competitive forces consists of (Harvard Business Review)

1. Threat of new entrants
2. Bargaining power of buyers
3. Threat of substitute products or services
4. Bargaining power of suppliers
5. Rivalry amongst existing competitors

Threat of new entrants is when the industry is profitable and attracts new companies to come into the industry which in the end dissolves the profits. Patents, capital requirements, and economies of scale can prevent the eroding of profitability and it declining to a competitive rate.

Bargaining power of buyers is how easy it is for the buyers to drive down prices and is determined by the amount of buyers in a market, the cost of the buyer to switch from one supplier to another, and the importance of the supplier to the buyer. Threat of substitute products or services involves buyers switching to close knockoffs or products that are identical yet cheaper when the price increases. This can affect not only the power of the suppliers but also the attractiveness of the industry.

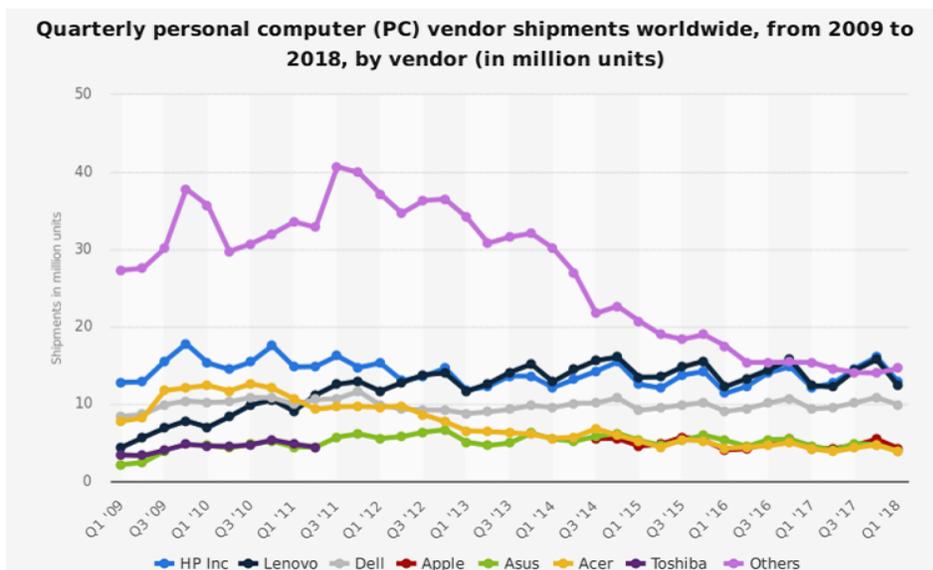
Bargaining Power of suppliers is how easy it is for the suppliers to drive up the prices in an industry. How many suppliers there are, how uncommon the product is, and the cost of switching suppliers all affect the bargaining power of the suppliers. Rivalry amongst existing competitors is mainly driven by the number of competitors and their capabilities within the market. If there are more competitors with similar undifferentiated products or services, then the market will not be so attractive.

Within the industry, there are many companies that are trying to be number 1 on the charts. The industry includes HP Inc., Lenovo, Dell Inc., Apple Inc., Acer Group and more. Those were the top companies within the industry based on July 2018 International Data Corporation release of information. HP Inc. owns 23.9% of the market share while Lenovo owns 22.1%, Dell Inc. owns 18.1% and Apple Inc. owns 6.9% and Acer Group owns 6.7%. That means that 77.7% of the market is made up of these 5 companies. This is interesting because even though Apple Inc. is leading the industry in earned revenue, they own only 6.9% of the market share. As previously mentioned, there are 52 companies in the Electronic Computer Manufacturing industry. That means the remaining 47 companies make up the rest of the 22.3% of the market share left (Encyclopedia of American Industries). This industry is very competitive because almost everyone uses computers. People just need to decide which one they want because every

company wants to have the best of the best computer while still making it affordable for their customers. Price and quality of the computer are very big factors where companies try to position themselves to have the best for what you are getting. Macbooks are more expensive than their competitors because you are not only paying for the product and all the different features but the brand as well.

We think that many companies will have to make some serious competitive moves in order to stay at the top of the electronic computer manufacturing industry. Apple Inc. is generating the most revenue every year and they will be at the top as long as they keep producing new products with the latest and greatest technology. Apple is continuously coming out with new products and different features before many companies have figured out how to do or how to release with their products. The rest of the industry needs to figure out how to catch up to Apple with their products or sometime in the future, Apple could be the only company within this high power industry.

The electronic computer manufacturing industry has been highly successful throughout the years. Throughout the years there have been huge technological advancements and with this industry being such a competitive part of the market, it only pushes the companies to make more and more products and advancements that push them forward and differentiates them from the rest of the market. Some examples include, IBook (1999-2006) and Macbook series (2006-Present). The IBooks first were a big hit in 1999 when they first came out as a low-cost portable laptop with stylish colorful designs. Apple released the first macbook in 2006. The Macbook was a huge success due to its great capabilities and stylish sleek designs. The macbook series, which includes the Macbook, Macbook Pro, and Macbook Air, are the top-selling consumer laptops in the world. Because of the huge possibilities for success, Dell and Intel have also been in the same industry and compete with Apple for sales. Dell and Intel have both had a long run of computers but none that were as popular and successful as the Macbooks but, Dell and Intel have more product lines and are used greatly in the business environments with Dell being the most popular work computer/desktop.



(ExtremeTech)

When analyzing an industry, the attractiveness of the industry itself is extremely important to investors. It is crucial to look at the profits an industry brings in along with the risks involved. Industry attractiveness is based on several components, such as competition, strengths, growth, and the overall consumer demand for the products and/or services (Businessdictionary).

The Electronic Computer Manufacturing Industry is extremely attractive for several reasons. Although there have been rough times for PCs due to the creation of smartphones, ipads, etc., PCs are still in high demand. The industry's Compound Annual Growth Rate (CAGR) decreased between the years 2009 and 2016 by 15.76 percent. Within the next seven year, the industry was anticipated to make a comeback and with an estimated CAGR of 3.52 percent. In 2018, this expectation became a reality for the industry when PC sales across the world had the largest growth they have witnessed since 2012. Companies within this industry continue to evolve, such as the introduction of Windows 10, having a very positive effect on the industry and the future of the industry (Electronic Computer Manufacturing).

Due to the constant need of PCs by business, government, etc., the Electronic Computer Industry will always be alive. Although devices such as smartphones are in high demand, they cannot perform all of the functions a PC can. The industry is attractive, because they continue to grow and innovate as consumers urge for more technology.

The Electronic Computer Manufacturing Industry has completely changed and innovated the world. With the use of PCs, society is able to access a world of knowledge like never before. Although the industry has had downfalls, the success the companies have acquired has created an overall attractiveness of the industry as a whole.

## Works Cited

- “Bureau of Labor Statistics Data.” U.S. Bureau of Labor Statistics, U.S. Bureau of Labor Statistics,  
[data.bls.gov/timeseries/CEU3133400008?amp;data\\_tool=XGtable&output\\_view=data&include\\_graphs=true](https://data.bls.gov/timeseries/CEU3133400008?amp;data_tool=XGtable&output_view=data&include_graphs=true).
- “Competitors.” Mergentonline.com, [www.mergentonline.com/](http://www.mergentonline.com/).
- “Electronic Computer Manufacturing.” Business Insights: Essentials - Gale,  
[www.gale.com/c/business-insights-essentials](http://www.gale.com/c/business-insights-essentials).
- Encyclopedia of American Industries. “Electronic Computer Manufacturing.” Farmington Hills, MI: Gale, 2018. Business Insights: Essentials. Web. 18 Feb. 2019.
- ExtremeTech  
<https://www.extremetech.com/wp-content/uploads/2018/06/593459-the-why-axis-pc-shipments-2009-2018.png>
- Harvard Business Review “How competitive forces shape strategy”  
<https://hbr.org/1979/03/how-competitive-forces-shape-strategy>
- “MarketResearch.com.” *Market Research*, Global Research & Data Services Oy, 11 Feb. 2019,  
[www.marketresearch.com/First-Research-Inc-v3470/Computer-Manufacturing-12195209/](http://www.marketresearch.com/First-Research-Inc-v3470/Computer-Manufacturing-12195209/).
- “What Is Industry Attractiveness? Definition and Meaning.” *BusinessDictionary.com*,  
[www.businessdictionary.com/definition/industry-attractiveness.html](http://www.businessdictionary.com/definition/industry-attractiveness.html).