Introduction:

Apple, Inc. is a worldwide leader in technology. Founded by Steve Jobs and Steve Wozniak, Apple has introduced several revolutionary products since the 1980s, beginning with the Macintosh personal computer, and more recently with the iPod, iPad (portable media devices) and most notably, the iPhone. In this paper, I will attempt to do a Porters five forces analysis of the iPhone and take a deeper dive into Apples strategy in PCs and other products as well.

Porters Five Forces Analysis of Apple in the smartphone industry:

I. Supplier Power

To make a smartphone, hardware and software components are needed. The hardware is the chips, transmitters, memory etc. that go in the phone, while the software is the operating system and applications (apps) available for the phone. As has been documented, Apple produces its own operating system (iOS). This is the only operating system that runs on an iPhone. It regularly comes out with updates to this iOS and it has full control over this software component as it is produced inhouse. This is also one of the great strengths of Apple – vertical integration. Apple also controls it own "App Store", where software developers and other users can contribute their apps. Apple has the ability to accept or reject additions to this app store. There are about 1.2 million apps on this App store currently with 9 million registered developers^[1], who compete for popularity on the App store so that their apps get more downloads. Clearly, Apple is not reliant on one supplier for these apps and has several developers contributing to the app store.

For the hardware components, Apple historically outsourced all of the production of iPhone parts to Foxconn^[2], an electronics manufacturing company in China. Outsourcing manufacturing to China helps Apple keep its production costs down while also maintaining significant control over the manufacturing process. Because of the massive volume of iPhones sold and the loyalty Apple gets from its customers, many companies compete with each other to have Apple as a client, as it means much more business for them. However, concerns have risen in the recent past because of Apple outsourcers' treatment of employees. There have been suicides and riots at these outsourcer plants, and they have been found in violation of labor laws^[4]. As Foxconn moves into compliance with these labor laws and betters its working conditions, its margins have reduced.

In order to move away from a reliance on a sole supplier, Apple has recently moved some of its production to Pegatron^{[2][3]}, a rival manufacturing company to Foxconn in China. This has helped Apple balance its supply chain. Pegatron is a smaller company and accepts smaller margins while it tried to court Apple. Apple also re-started manufacturing for some of its other products inside the US ^[5], further diversifying their manufacturer portfolio. Thus, there is a low threat from suppliers to Apple.

II. Buyer Power

In the first three months of 2015, Apple has sold 61.1 million iPhones^[6] (it's second best quarter ever in terms of sales). This is despite the iPhone's higher price point. The iPhone exists in a "closed" ecosystem, where other Apple products such as iTunes and iCloud work very much in sync with the iPhone. So as customers make purchases on iTunes and upload files or photos on iCloud, their reliance on the Apple ecosystem increases and it becomes more difficult for them to switch alliances to another phone and another ecosystem. Apple also introduces a new iPhone every 12 to 15 months, with software and hardware upgrades on previous phones. This also induces customers to replace their existing iPhones with the newest iPhones and generates sales for Apple. Customers are willing to pay the extra dollars to buy the iPhone, and with such a high volume of sales for the iPhone, Apple has enough power to keep up the higher price for the iPhone.

The iPhone is also seeing increased sales in new markets, notably emerging countries such as China and India. Even with a higher price, customers in these countries want the iPhone. So Apple has the potential to increase its customer base as well. Thus, there is low threat from buyers for Apple.

III. Competitive Rivalry

The biggest competitor for Apple's iPhone is Samsung with its Galaxy line of phones that run the Android operating system. Other competitors include HTC running with the Android OS, Microsoft and Nokia with the Windows OS and RIM (Research in Motion) with its Blackberry line of phones. Devices with Android have a lower price point and offer more flexibility to customers in the sense that they have a more "open" ecosystem, running many third party apps. More companies offer Android phones so customers also have a wider range of choices. Customers who subscribe to the Android ecosystem are also usually averse to switching loyalties. Apple has tried to make dent in this budget conscious category of smartphone buyers with its iPhone 5c, a cheaper iPhone with less features. But this was not a very successful product and Apple discontinued its production as it moved back to its focus of higher-end customers.

It can be argued that none of the competitors offers what the iPhone offers. Customers love the design and feel of the iPhone, the simplicity of its operating system and the integrated functionality of other Apple products with the iPhone. This is very much like the "digital hub" that Steve Jobs envisioned for Apple. The diverse product line that Apple competitors have is as much a weakness for them as it is strength. If customers want an Android phone, they have a host of choices and it is difficult for one smartphone maker to build as much of a loyalty as Apple. This is the issue Apples competitors such as Samsung face.

From the perspective of suppliers, if they land Apple as a customer, they can potentially get more business from them than from any other smartphone maker. So

Apple enjoys loyalty from suppliers as well. Interestingly, Samsung is actually a supplier for Apple^{[7][8]}, producing chips for the iPhone. Despite competing with each other in smartphone sales, Samsung wants Apple as a client, showing the power that Apple yields over its suppliers. Thus, there is a medium amount of threat from competitors to Apple.

IV. Threat of substitution

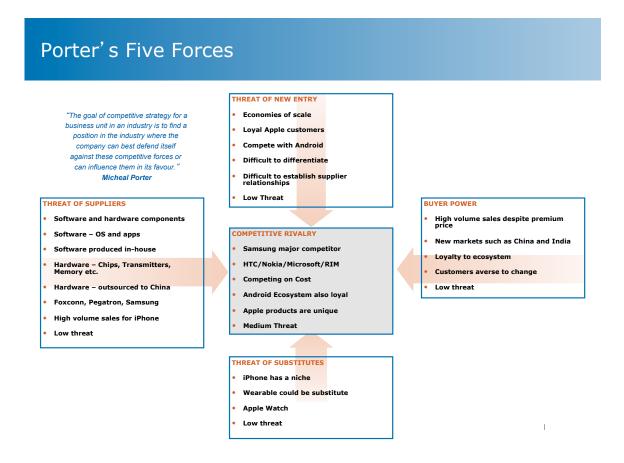
As mentioned previously, Apple enjoys strong loyalty from existing customers who usually do not switch phones. The market is segmented between iPhone users and other users. However, a possible substitute to smartphones that has recently emerged is wearable technology, also known as "wearables". These wearables are devices that you can literally wear on your body, usually on your wrist, that do a lot of things that smartphones do. Until recently, these wearables were used mostly for tracking health and fitness. However, Apple has forayed into this product category as well, with its own "Apple Watch". The Apple Watch has calling and texting functionality as well. While this is a fairly new product and it is not definitively known how it will affect the smartphone category, it is quite possible that smartphone sales will be cannibalized by wearables^[9]. But staying true to Steve Jobs motto that "If you don't cannibalize yourself, someone else will", Apple has moved quickly to come up with their own product in the wearables category as well. So even if customers start substituting smartphones with wearables, Apple will already have a presence in this category. Thus, there is low threat from substitutes.

V. Threat of New Entry

There are many new entrants every year in the smartphone industry. However, most new entrants in the smartphone industry do not compete directly with Apple. They run the Android OS and compete with Samsung and HTC devices [10]. They also compete with each other in the lower price point category while the iPhone remains strong in the premium phone category. While it is not difficult to enter the smartphone industry, it is difficult to differentiate a new smartphone and make a mark in an already crowded marketplace. Apple also has a strong relationship with its suppliers because of the sheer volume of iPhones sold, so if new entrants want to compete with Apple, they may have to manufacture in-house or make relationships with different suppliers. Thus, there is low threat from new entrants.

This analysis has been visually represented in the diagram below.

Porters Five Forces Diagram:



Apple's difficulties in the PC industry:

Moving on to the PC industry, I will now try to explain the reasons for Apples relatively weaker hold on this market. Apple offers the Macbook laptop and iMac desktop. It can be argued that Apple has a superior product, yet it has faced difficulties in the PC industry over time. Going back to 1978 when Apple came out with the Apple II, it was an industry leader in PC's, selling more than 100,000 units by the end of 1980. However, the arrival of IBM in the PC market changed things for Apple. While Apple practiced vertical and horizontal integration, insisting on producing all the components of its PCs, IBM opened up its system so it could be cloned and other manufacturers could come up with IBM compatibles. This began an era of dominance for IBM machines, which affected Apple for a long time.

The next few years from saw changes in leadership at Apple, with four CEOs from 1984-1997 (including Steve Jobs). Each change in leadership led to a different focus in the PC market for Apple, and for a while its strategy seemed confused. From 1985, John Sculley was in charge and he focused on entering the education market and making it a stronghold. He also maintained the integration strategy, producing superior hardware and software and made Apple the most profitable PC company in 1990. However, IBM clone-manufacturers acquired a higher volume of sales and were able to bring down prices. In comparison, the Macintosh was overpriced. The

IBM machines also attracted more applications due to the high sales, leaving Mac behind in this area as well.

In 1993, another leadership change was made. Michael Spindler was made the CEO. He brought in cost-cutting initiatives, and made deals with a handful of companies to license manufacturing of Mac-clones. This was a u-turn on the initial strategy of vertical integration and offering premium-price products. This was not a successful strategy and Spindler was replaced by Gil Amelio in 1997. Amelio made another about turn and refocused on Apple's premium product offering. These changes in strategy and core focus over the years left Apple lagging in the PC industry and unable to make a stronghold. Apple's insistence on vertical and horizontal integration stymied its growth in the PC industry, while it turned out to be a strength in the smartphone industry.

Apple's competitive position in PCs, smartphones and tablets:

PCs: As of 2011, Apple had a 4.7% market share (by shipments) in the PC industry. This reflected a steady growth in market share since 2002, when it had 2.3% of the market. In comparison, market leaders HP and Dell had 17.7% and 12.6% of the market in 2011 respectively. However, Apple has a gross margin of 41% compared to 23% for HP and 22% for Dell. Apple has carved a niche for its PCs in the premium-product category. Its superior design and integration within the Apple ecosystem has led to the higher margins and increasing market share. However, its premium price point and insistence on vertical integration means it still has less of a market share compared to the leaders. Microsoft stronghold in the PC category and in enterprise computing means Apple may never be a market leader in PCs. However its high margins and success in smartphones means it may not desire to change this positioning. It may expect small increases in market share every year.

Smartphones: It is a different story as far as smartphones are concerned. As of March 2015, Apple had a 20.4% market share worldwide compared to a 19.9% market share for its top competitor Samsung [11]. Apple leads in this category and with its second-best quarter ever in 2015, still shows potential for increase in market share. As explained previously, iPhone has loyal customers who ensure that it will lead the market. The iPhone has a first mover advantage that it has sustained. Apple had this advantage with its PCs as well, however it was not able to sustain it.

<u>Tablets:</u> Apple has a market share (by shipments) of 54.7% as of 2012. In comparison, Android based tablets have a market share of 44.2%. Apple has a similar premium-price strategy in this category and it should maintain this position of being a leader through its robust ecosystem.

While Apple is clearly doing quite well for itself, I will try to give some advice to current CEO Tim Cook.

Advice to Tim Cook:

- 1) Continue focusing on Apples strengths sleek industrial design and a robust ecosystem delivering the Apple experience.
- 2) Continue innovation and R&D to stay ahead of the competition and deliver on Steve Jobs motto of finding out what customers need before the customers themselves do.
- 3) Drive growth in international markets particularly emerging countries such as India and China.
- 4) Continue hiring the best talent and create an atmosphere of innovation.
- 5) Finally, ensure that customer service is top-notch and makes Apple customers its promoters.

References:

- [1] "ITunes App Store Now Has 1.2 Million Apps, Has Seen 75 Billion Downloads To Date." TechCrunch. Web. 28 Apr. 2015. http://techcrunch.com/2014/06/02/itunes-app-store-now-has-1-2-million-apps-has-seen-75-billion-downloads-to-date/.
- [2] "Apple Shifts Supply Chain Away From Foxconn to Pegatron." WSJ. Web. 28 Apr. 2015. http://www.wsj.com/articles/SB10001424127887323855804578511122734340726
- [3] Apple Main Supplier List. https://www.apple.com/supplier-responsibility/our-suppliers/)
- [4] "Riots, Suicides, and Other Issues in Foxconn's IPhone Factories CNET." CNET. Web. 28 Apr. 2015. http://www.cnet.com/news/riots-suicides-and-other-issues-in-foxconns-iphone-factories/.
- [5] "Apple to Build Made-in-the-USA Manufacturing Plant in Arizona CNET." CNET. Web. 28 Apr. 2015. http://www.cnet.com/news/apple-to-build-made-in-the-usa-manufacturing-plant-in-arizona/.
- [6] "Apple Sold 61.1 Million IPhones in the First Three Months of 2015." The Verge. 27 Apr. 2015. Web. 28 Apr. 2015. http://www.theverge.com/2015/4/27/8504033/apple-iphone-sales-q2-2015.
- [7] Apple Full Supplier List https://www.apple.com/supplier-responsibility/pdf/Apple_Supplier_List_2015.pdf
- [8] "Samsung Will Be Main Supplier of A9 Chip for Next Apple IPhone: Report." Tech Times RSS. 26 Jan. 2015. Web. 28 Apr. 2015.
- http://www.techtimes.com/articles/28661/20150126/samsung-will-be-main-supplier-of-a9-chip-for-next-apple-iphone-report.htm.

- [9] "Will Wearables Replace Your Smartphone? Will Wearables Replace Your Smartphone?" Tom's Guide. 16 July 2014. Web. 28 Apr. 2015. http://www.tomsguide.com/us/smartphones-vs-wearables,review-2253.html.
- [10] "Xiaomi's IPhone 6 Plus Competitor Doesn't Rip off Apple." The Verge. 15 Jan. 2015. Web. 28 Apr. 2015. http://www.theverge.com/2015/1/15/7550903/xiaomi-mi-note-announced-specs-price.
- [11] Epstein, Zach. "With Just Two New IPhone Models, Apple Catapults past Samsung in Smartphone Sales." Web. 28 Apr. 2015. http://bgr.com/2015/03/03/iphone-market-share-q4-2014-gartner/