

# TFM 2nd call

*por* JuanJuan Jing

---

**Fecha de entrega:** 15-jul-2018 12:00a.m. (UTC+0200)

**Identificador de la entrega:** 981540237

**Nombre del archivo:** 42267\_JuanJuan\_Jing\_TFM\_2nd\_call\_1253520\_399037343.pdf

**Total de palabras:** 21918

**Total de caracteres:** 111009



**ICADE BUSINESS SCHOOL**

**Master In Finance**

**Master's Thesis**

**A case study on Apple, Inc which affecting  
the world of Smart Technology Leader or  
heading down?**

**Author: *Juan Juan Jing***

**Director: Professor: *Fernando Hernandez Sobrino***

Madrid

July 2018

<b>INDEX</b>	<b>5</b>
<b>LIST OF FIGURES AND FORMS</b>	<b>6</b>
<b>LIST OF ABBREVIATIONS</b>	<b>7</b>
<b>CHAPTER 1. INTRODUCTION</b>	<b>9</b>
1.1 INTRODUCTION	9
<b>CHAPTER 2 METHODOLOGY</b>	<b>11</b>
2.1 DATA COLLECTION	11
2.2 METHODOLOGY DESCRIPTION	11
<b>CHAPTER 3 BACKGROUND OF THE STUDY</b>	<b>13</b>
3.1 BUSINESS ENVIRONMENT:SITUATION ANALYSIS	13
3.2 DESIGN THINKING AND INNOVATION REVOLUTION	14
3.3APPLEIN CHINA	14
3.4.APPLE'S CURRENT CHALLENGE AND RISK	15
3.5 BENEFIT FROM LIGHT ASSET?	15
3.6 RISK EVALUTION	17
<b>CHAPTER 4.PRESENTATION AND ANALYSIS OF DATA</b>	<b>18</b>
4.1 FINACIAL ANALYSIS FOR APPLE AND ITS DEVICE SECTOR	18
4.2 APPLE'S MARKETING STRATEGY	18
4.2.1 HUNGER MARKETING	18
4.2.2 APPLE'S VIRUS MARKETING	18
4.2.3 PULL AND PUSH MARKETING	19
4.3 APP STORE MARKETING MODEL ANALYSIS	19
4.4 MODEL ANALYSIS	19
4.4.1 APPLE BUSIENSS MODEL ANALYSIS	20
4.4.2 SWOT ANALYSIS	20
4.4.3 PORTER'S FIVE FORCES ANALYSIS	20
4.4.3.1 INTENSITY OD RIVALRY WITHIN THE INDUSTRY	22
4.4.3.2 BARGAINING POWER OF SUPPLIERS	23
4.4.3.3 THE BARGAINING POWER OF BUYER	23
4.4.3.4 THREAT OF NEW ENTRANCE	23
4.4.3.5 THREAT OF SUBSTITUTE PRODUCT	23
4.4.3.6 COMPARISON	24

4.4.4 FINANCIAL ANALYSIS	24
4.4.5 VERTICAL ANALYSIS OF INCOME STATEMENT	26
4.4.6 P/E RATIO& OTHER RATIO ANALYSIS	27
4.4.7 SUPPLY CHAIN ANALYSIS	28
4.4.8 OVERVIEW OF SUPPLY CHAIN	28
<b>CHAPTER 5. PROFIT ANALYSIS</b>	<b>28</b>
5.1 REVENUE STRUCTURE	28
5.2 APPLE'S COMPETITORS IN CHINA	31
5.3 APPLE REVENUE STRUCTURE	34
5.4.PROFIT MODEL	36
5.5 THE SOURCE OF PROFIT	36
5.6 HUGE CASH RESERVES AND FREE CASH FLOW	40
5.6.1 OPERATING FREE CASH FLOW AND CASH EQUIVALENTS	40
5.6.2 OPERATING EQUITY CASH FLOW OF APPLE, INC	42
5.6.3 THE RATIO OF FIXED ASSETS AND LIQUID ASSETS	45
5.6.4 CURRENT ASSETS AND ACCOUNT RECEIVABLE	46
<b>CHAPTER 6. COMAPRISON ANALYSIS BETWEEN APPLE AND OTHER RIVALS</b>	
6.1 APPLE VS NOKIA INVENTORY TURNOVER INDAYS	46
6.2 APPLE VS NOKIA INVENTORY	48
6.3 NOKIA'S FALL VS IPHONE'S BRILLIANT	50
6.4 DIFFERENCES IN INVENTORY MANAGEMENT	50
6.5 DIFFERENCE IN UPSTREAM AND DOWNSTREAM BARGAINING POWER	51
6.5.1 NOKIA VS APPLE ACCOUNT RECEIVABLE TURNOVER RATE	51
6.5.2 NOKIA VS APPLE ACCOUNT RECEIVABLE TURNOVER RATE	51
6.6 RECEIVABLE AND ACCOUNT PAYABLE OF APPLE, INC	53
6.7 INVESTMENT AND FINANCING CAHS FLOW SHOW THE GROWTH OF COMPANY	53
6.7.1 SAMSUG CASH FLOW STATEMENT	53
6.7.2 APPLE VS SAMSUNG FINANCING CASH FLOW	54
6.8 INCREASE R&D INVESTMENT	56
6.9 APPLE WITH ITS RIVALS	57
<b>CHAPTER 7. APPLE STILL CAN CREATE LEGEND OF SALE</b>	<b>58</b>
7.1 APPLE IS HEADING DOWN?	58
7.2 SUDDENLY RISE OF HUAWAI	58
7.3 THE SUDDEN RISE OF OPPO AND VIVO	60
7.4 THE FUTURE OF APPLE	60
7.4.1 DESIGN, MATERIAL, CHANNELS	60



CHAPTER 8 CONCLUSION	61
----------------------	----

CHAPTER 9 SUGGESTION	61
----------------------	----

REFERENCE	64
-----------	----

Index

List of Figures

List of Abbreviations

Chapter 1. Introduction

Chapter 2. Methodology

Chapter 3. Background of the Study

Chapter 4. Presentation and analysis of data

Chapter 5. Profit Analysis

Chapter 6. Comparison Analysis Between Apple & Other Rivals.

Chapter 7. APPLE STILL CAN CREATE LEGEND OF SALE

Chapter 8. Conclusion

Chapter 9. Suggestion

Figure 1 Financial Analysis for each segmentation  
Figure 2 Products and services segmentation  
Figure 3 SWOT Analysis  
Figure 4 Porter's Five forces Analysis  
Figure 5 Financial Analysis  
Figure 6 Vertical Analysis of Income Statement of Apple Inc.  
Figure 7 P/E Ratio & Other Ratio Analysis  
Figure 8 Worldwide Smartphone sales to End Users by Vendor in 1Q17  
Figure 9 Quarterly operating income and net profit  
Figure 10 EBIT VS Net Profit 2014 to 2017  
Figure 11 Profit Model  
Figure 12 Apple's Account Receivable vs Account Payable  
Figure 13 Investment and Financing cash flow shows the situation of Finance for Apple  
Figure 14 Cash Flow Overview  
Figure 15 Operating Free Cash Flow and cash equivalents ( from 2014 to 2017)  
Figure 16 OFCF VS Cash  
Figure 17 Operating Equity Cash flow of Apple Inc from 2015e to 2016e  
Figure 18 Operating Free Cash Flow of Apple Inc from 2015e to 2017e  
Figure 19 Operating Free Cash Flow vs OECF  
Figure 20 comparison of OFCF vs EFCF  
Figure 21 The Ratio of fixed Assets and liquid Assets  
Figure 22 Ratio & operating Working capital  
Figure 23 Account Receivable and Account Payable  
Figure 24 Apple vs Nokia Inventory Turnover in days  
Figure 25 Apple vs Nokia Inventory Turnover Ratio  
Figure 26 Nokia VS Apple Account receivable Turnover Rate  
Figure 27 Nokia VS Apple Account receivable Turnover Rate  
Figure 28 Apple Receivables and Accounts Payable  
Figure 29 Samsung Cash Flow Statement  
Figure 30 Apple vs Samsung Financing Cash flow  
Figure 31 R&D invested trends Yearly, SG&A Expense  
Figure 32 Apple with its Rivals

## **LIST OF ABBREVIATIONS**

**HOV- Huawei, Oppo & Vivio**

**OFCF-Operating Free Cash Flow**

**OECF-Operating Equity Cash Flow**

**OWC-Operating Working Capital**

**Thesis Topic:** A case study on Apple, Inc which affecting the world of Smart technology-  
Leader or heading down?

**Abstract**

Apple released its second-quarter results for fiscal 2017. The report showed that Apple's second-quarter net revenue was \$52.896 billion, up from \$50.57 billion in the same period last year; net profit was \$11.029 billion, up 5% from \$10.516 billion in the same period last year. Apple's second-quarter earnings per share exceeded Wall Street analysts' expectations, but revenues were slightly below expectations, and both iPhone sales and third-quarter revenue outlooks were lower than expected, causing its share price to fall nearly 2%. Apple's board of directors approved a 10.5% increase in quarterly dividends and will pay a cash dividend of \$0.63 per share to the company's common shareholders, which will expire on May 18, 2017, until May 15, 2017. Issued by registered shareholders. Apple also announced that its board of directors has approved a \$50 billion increase in the size of its capital return program and will extend the program for four quarters. Apple has a market capitalization of more than \$800 billion and a cash balance of \$250 billion, then there is nearly \$92 billion in long-term debt, and if it takes consideration into operating leases and corporate bonds, it has a total debt of more than \$100 billion. Apple also has its special approach to manage its debt structure. Since 2016 Apple financed around \$12 billion new debt, the debt load has raise up to \$100 billion, which means Apple needs to pay higher interest rates than before. Meanwhile Apple's debt is still rising as same as the stock price. On the May 12th of 2017, then Apple shares rose 1.4% to \$156.10 per share. Apple expects to increase the dividend payments since the interest payments are increased year by year. Apple raised its free cash flow over time to cover the increased debt and interest payment.

## **Chapter 1. Introduction**

### **1.1 Introduction**

Since 1990, Apple suffered tremendous chances to moving forwards into different level of technology innovation. Apple has diversified product line to bring consumers a wonderful technology tidal wave. With learning from the market, growing, keeping move forward, and updating its top technology to meet people's demand, the name of Apple not only played as a tool have to be holding on the hand, but also apple emperor has expanded into the world dramatically, its products with advanced function, modernized design, differentiation marketing strategy to make influence on consumers' life. Apple's majority competitors such as Samsung, Mi, Microsoft, continuously moving, expand their business line aggressively and their also plan to replace Apple's market share.

As one of the big fan of Apple, I am writing this paper to make analysis in depth in Apple's financial statement, cash flow and it current business activities, how does Apple receive more revenue than Chinese mobile brands between 2010-2014. In this paper, I would like to analysis Apple's financial situation to think about its working mechanism and how does this leading company to finance with 150Million to cover up million debts to moving forward aggressively.

Apple continues to work on providing their customers with more innovative product like iwatch to compete with their competitors instead of only sustain Apple's achievements in computers, MP3 players, phones, and tablets. However, Cook was attempting to demonstrate he can promote Apple forward into the next level in fast pace.

Furthermore, Apple haven't realized some potential problem inside of their new product and future preview. As many people suspicious about Apple Watch and Apply Pay, how does those two new products can sustain to bring long term profitability to Apple, that's a big question.

As Apple, Inc spent more than 10 years to stay at the peak of mobile Industry it brings the fashion of Big Screen into consumer's life. Regarding its peak of relevancy, many people suspicious whether Apple can always maintain their top position to bring more advanced useful function to clients. As we know, Apple always rely on Iphone to create value as other brand cellphone became thrive day by day. Consumers can't only purchase cellphone in a timely fashion. In order to increase sale, Apple was bringing Iphone SE series into the market in purpose of obtaining the advantage of pricing as some Chinese cellphone brands are setting sights on world domination, and many people was considering a question: Can Huawei and Samsung catch up Apple. In Chinese market, there are 14 new Asian smartphone makers hoping to crush Samsung and Apple, such as Xiaomi, Vivo, OnePlus, Oppo, Huawei with cheaper price started to grab the market share, they even to promote their products in the European, India, South America to seize market share and catch up their opportunities to expand quickly.

### ***Thesis Statement:***

Apple still represents the core mobile technology of innovation, but its dominant power position started to lose when HOV(Huawei, OPPO, VIVO). The purpose of this essay is to critically analyze the financial situation, but primarily I would like to analyze the external and internal environment, because behind Apple financial statement, it comes up with big story, then it is correlated with business environment, financial& marketing strategy to make the financial date different from its rivals. To identify Apple's objectives and strategy is very important to evaluate its overall financial performance, I also applied analytical tools and model for implementation of the strategy.

**Keywords: HOV(Huawei, OPPO, VIVO), 150 Million, Financial Situation**

## **Chapter 2 Methodology**

### **2.1 Data Collection**

In order to analysis Apple's current level of success and its power of competition in Asian smartphone market, data has been collected from Apple released financial report and other data of its competitors Huawei, Mi, Oppo, to give readers a very clearly comparison by selecting sale ratio, P/E Ratio to conduct the survey, to indicate some different to help Apple make good business or financial decision in the future. By comparing sale, growth and manufacture cost to identify majority variable need to be taken into consideration and help Apple to identify points for improvement when released new products into the cellphone market. It's very necessary to collect data from official financial report to tell reader what happened inside of their report. Effective data analysis or research can be very applicable that apple could pursue their customers to believe that they are in need of new product and customer would like to in favor of Apple's differentiation to accept higher price.

### **2.2 Methodology Description:**

1. In this paper, I would like to focus on Profit Model, core business model, value chain and financial value model. The relationship of "Corporate Value → Financial Strategy (Cash Flow Structure Dominant) → Profit Model (Light Asset Model) → Business Activity and Capital Behavior → Financial Performance".
2. In order to analysis to evaluate Apple's overall business performance to see how the business model corresponded with financial strategies, it is necessary to compare of the difference between operating accounts and financial accounts.
3. Financial strategy perspective- since learning and adopting the Apple case to highlight the unique role of financial strategy in driving and supporting asset-light profitability model and seeking to inspire more and more new companies to pursue more competitive advantages to enhance corporate value in a more "financial strategy" approach. some scholars also use business models to equate with profit models or believe that profit models are the core content of business models. Financial Strategy drives Corporate Profit Models The corporate strategy is to make decisions about the profit model, and the profit model reflects the strategy that has been put into effect. The value of the strategy is to make choices and flexible configurations for the profit model. The strategic resources of enterprises, especially the allocation of financial resources, must be the basic task of the financial strategy, because "the task of the financial strategy is to use value analysis as the basis to promote the long-term equilibrium and effective transfer of corporate cash and configuration as a standard, so as to maintain the long-term profitability of the enterprise.
4. By comparing operating free cash flow and equity cash flow. It is illustrated that Apple's revenue growth quickly and it continuously bring in benefit to their clients and shareholders. Apple's profit model drives enterprises to look inside and motivate them to moving forward. It further proves that in the effective capital market, investors are only interested in good profit models. However, as Apple's Chinese



market share being smaller than before, their profit model is currently doubted, so Apple needs to step into revolution activities to be more powerful and aggressive.

5. From the perspective of corporate financial value models, the value factors should include sales growth rate, operating gross profit rate, income tax rate, working capital investment, fixed asset investment, capital Factors such as cost and value growth period, among which the first three value drivers specifically reflect the main feature of profit models such as product selection, pricing, promotion, advertising, and distribution, such as customer selection model and product supply model; and working capital and fixed assets. These two driving factors of investment reflect the resource investment model and its operating leverage; financing methods and financial risks determine the resource acquisition model and the level of capital cost; the value growth period is the time-driven factor that is the business scope model. These value drivers are key success factors at the enterprise level. Combining them together can provide an effective business model analysis platform for corporate profit model analysis. Financial Strategy drives Corporate Profit Models The corporate strategy is to make decisions about the profit model, and the profit model reflects the strategy that has been put into effect. The value of the strategy is to make choices and flexible configurations for the profit model. The strategic resources of enterprises, especially the allocation of financial resources, must be the basic task of the financial strategy, because "the task of the financial strategy is to use value analysis as the basis to promote the long-term equilibrium and effective transfer of corporate cash and configuration as a standard, as to maintain the long-term profitability of the enterprise. The main aspects of the corporate strategy are inseparable from the cash flow and related to the acquisition and configuration of financial resources, the financial strategy constitutes the main part of the corporate strategy and affects all aspects of the corporate strategy.
6. Due to fiercely competition between Apple and HOV(Huawei, Oppo and Vivo), by comparing Financial ratio, Inventory Turnover to see the company's high operational efficiency brought by the company's leading supply chain management level through several key indicators.
7. By evaluating Apple's business performance, it is very essential to compare its Account Receivable and Accounts Payable, Accounts receivable turnover days comparison, Investment and financing cash flow to see the growth rate from 2005 to 2016.
8. In order to look at Apple's supply chain in depth, I also make a comparison between Apple and Nokia to reveal the failure management of Nokia. Through comparing the stock price between Apple and Nokia since 2007 to check the differences in inventory management to indicate how Apple can management its inventory in an effective approach to get higher inventory turnover rate.
9. In this essay, it also contains my perspective analysis of Apple value chain, it illustrated other important analytical model such as SWOT, Porter's Five Forces and business strategy, marketing strategy, ecosystem and other comprehensive framework.

## **Chapter 3 Background of the Study**

### **3.1 Business Environment: situation Analysis**

#### **3.1.1 Business Environment and evolution of industry**

During 1990s, Apple was lost the leading position in the technological market, that situation made Apple hard to stay afloat to be competitive. Since 1994, According to Apple's financial statement reported loss frequency, and afterwards thanks to loss, apple accumulated a hundreds of million loss of debt. However, Apple wasn't loss their confident with their loss and huge debt. In avoid of further disaster of financial, Apple negotiated with Microsoft, then Microsoft agreed to pay Apple with 150 M dollar to alleviate the debt crisis. Well, it's hard to image as a leading digital fighter, apple was struggled to growth progressively, but its stronger motivation and ambitious purpose can't be ignored which promoted this company into a leading position. I still can't image 150M to push Apple become the only significant operating system developer in the world and its remarkable performance on retailing. Apple's internal volatility suffering rise in becoming a transition point for Apple's development to reset their position, target, and strategic plan. Apple had experienced recession of losing market value because of four reasons:

1. Apple insisted in differentiation strategy to sell their own unique products with high price and they didn't like to compatible with IBM machine.
2. Because more users would like to buy IBM machine, and that cause software developers build more innovative technology embodies on the IBM machine.
3. Apple experienced CPU revolution used Motorola and Intel's got aggressive technology movement to replace Motorola after 80s. But thanks to technology competition failure would ask Apple to realize something different in the future.
4. Apply did shoot a wrong target by focusing on education and printing industries, those two industries wouldn't promote growth and bring revenue. On the contrary, it made Apple market share dropped down.

### **3.2 Design Thinking and innovation revolution:**

"From 1998 Apple released the all-in-one iMac, priced at a brave \$1,299. It was designed much like the original Macintosh in the clear plastic case available in translucent shades of red, blue, green and orange". Since Microsoft agreed to invest US\$150 million and maintained developing software for the Mac, Jobs started rebuilding industry in order to rescue Apple's future life. The labor cost, management expense was reduced at the same time R&D spending was cut in half. Distributors and retailers were requested to step down and they launched an online retail store to replace more real entities store to save more cost, the directly selling method to consumers being more efficiently to achieve sale growth. Since then Apple concentrated on producing desktop and laptop to optimize their technology instead of having more product line with high expenses year by year.

By 1998 the performance of enterprise seemed to be very amazing and Apple diversified their product design to trade by wisdom with customers as they refreshed the exterior design of the appearance of machines to put a beautiful blouse with bright blue, white colors into the body of machine. Jobs' "design sense" was fully performed with confidence and refined perfectly. His sensibility influence power at the company to inspire others. His design bought fashion for digital industry and create enterprise value, that was very meaningful to a company. Fashion MacWorld was considered as "soft power" which helps Apple get succeed in the quiet fight with his competitors and Apple suffered twists and turn to look like as turn things around. Steve Jobs kept his design sense to create more value of innovation to their clients.

### **3.3 Apple in China**

Around 19 years after Apple entered China, in 2008, Apple founded their first store in Beijing customers waited in line and stayed in lines stretched around many blocks. By this time, Apple's market had diversified significantly, and they were successfully serving the computer and portable music demands of Chinese customers through PC and iPod sales. There was a notable absence of the iPhone in the 700 million Chinese mobile phone market, notwithstanding Apple's significant efforts to establish a distribution relationship with China Mobile, China's largest mobile service provider. Despite the absence of iPhones, by 2009 there were an estimated 1.5 million legitimately imported or counterfeit Apple "iPhones" finding their way into the Chinese gray market. It has been 19 years since Apple founded in China in 2008, the first Apple store where was opened in Beijing, Beijing's customers couldn't wait to buy. But only 500 units sold in the first week, how does this record affect ambitious Apple Industry.

Apple always very ambitious to expand its market in Asian market, but Apple wasn't very similar with Asian market and in the begin Apple paid more attention on building up the network with Chinese telephone supplier such as Unicom, the second largest service provider in China. Apple had a very tough experience to negotiate with Unicom. But final in September 2009, China Unicom did accept the deal with Apple for 3 years, the contract covered 335 cities in China. That's was an important cooperation deal in China, which provide more convenience up to million Chinese iphone users. The president of Unicom, Lu Yimin thought the goal of the deal was to capture more one-third of China's 3G market in 2010, they will target on more than 20 percent of China's overall mobile phone market in 2010, this deal bought win win to both of parties, it has long term valuation of strategy movement.

### **3.4 Apple's current challenge and risk**

First, Apple company's problem may be caused by the risk of analysis, here are reason listed below:

The first: The internal system is the biggest variable for Apple's future development as we cannot deny that Apple has always benefited from their own system specification and perfect ecosystem. In the App Store made such great succeed today, but the problem of Apple's

system limitation can't be ignored by users and not all of the developers get used to adapt such system. Apple definitely monopolized their core multinational technology to announce its success and successfully differentiate their products with perfect industrial design. Compared with the openness of competitors, Apple has been suffered many bad reviews regarding the limitation of the system and pricing.

Regarding the limitation of the Apple system, Google was launching a completely open Android system. Apple and Google's model is the difference between the non-flexibility and flexibility. Furthermore, the limitation of system leads to a future potential product development risk. Many years ago, iPhone 4 achieved the general recognition from the market, but there existed very rapid changes in the market, if the Apple never realized how important to perfect the optimization and update technology to break the limitation, Apple won't be stay in the top of leading in the future. The flexibility of Android created Motorola, Samsung, HTC, LG, ZTE, Huawei and other manufacturers who get involved in the product positioning, price coverage, functional design. And those succeeds meet the different needs of consumers, and then they achieved more market shares. According to reports, in 56 countries to do the market survey, Android system in 35 countries, the market share of the first, the average market share of 48%, while Apple ranked second, the market share of only 19%.

### **3.5 Benefit from light Asset?**

Since during the recent year, Apple suffered a huge threat from Chinese domestic mobile brands, but there are still tons of people think the story of Apple's success needs learn from it, because the story inspired thousands of enterprises to face challenge and fight for their future life. Though reading many paper of Apple and use different business model to analyze this case by focus on the financial strategy. By comparing its financial strategy with other companies though reviewing their financial statement such as balance sheet, cash flow statement. I did check the proportion of assets in the balance sheet, then it is easy to find Apple is the typical smart industry who applied the light asset to drive revenue. The light asset profit model has been very impressive model to generate future cash flow and created influence power.

Light assets: Unique resource allocation and profit model In general, the light asset model has two main proposals: First, the company has a low ratio of fixed assets and inventory, and more liquid assets, especially cash assets; second, companies focus on building product designs, soft power assets in brand building, marketing channels, customer management, etc., and handing over their own business links that do not have advantages or are difficult to manage to partners, reducing their own investment and management costs (Wei Wei, Zhu Wuxiang, 2010). As a unique resource for enterprises, light assets include not only brand patents, but also the intellectual assets, customer relationships, channels and networks highlighted in market-based assets, as well as intangible assets. Such

as technology research and development capabilities, product marketing capabilities, supply chain, human resources, management systems and processes. Although in the current financial statements, only premiums generated by brands, patents, intellectual property rights, and mergers and acquisitions processes are listed in the form of goodwill on the left side of the balance sheet, corporate earnings increasingly rely on the accumulation of light asset resources by companies. And its ability to use light assets to leverage other resources. Compared to fixed assets, plant buildings, and production lines, which can be constructed in a short-term manner by large-scale investment or outsourcing, heavy assets such as technology, brand, knowledge, and relationships require long-term investment by the company. accumulation. Companies that operate in asset-light mode do not usually invest in major fixed assets, or invest only a small amount of proprietary fixed assets, use outsourced or leased forms, leverage other companies' resources for production, and focus on R&D, Marketing and terminal channel sales and other high value-added links. Common OEM (Original Equipment Manufacturer) and OBM (Original Brand Manufacture) are typical light asset models.

This light asset model is essentially a powerful resource allocation, integration capability, and rapid ability to respond to changes in the market. In the cash flow distribution pattern, companies often have higher interest-free funds and have more operating cash flow. From a financial strategy-driven perspective, the company's investment strategy, financing strategy, and dividend distribution policy must be based on the characteristics of the light asset model and must be strategically planned around the cash flow structure. In addition, it is also possible to use cash flow reserves to conduct highly liquid securities investment, which can not only maintain the liquidity of assets, but also obtain financial investment income. In short, the positive free cash flow structure is the core carrier of the asset-light model. In summary, this paper it considers that the features of light asset model appearing in the financial statement.



### 3.6 Risk Evaluation:

#### Risk Management Strategies of Apple Computer Incorporated

Apple get involved into one of the biggest industry in the world, where in there are many competitors who are offering the same or related products and services. That is the reason why the company is facing its major risk that is connected to the aggressive competition in the market. Competition is always one of the most important as well as the biggest risks in the business. Competitors are all battling it out in order to control the bigger segment or part of the market (Zajas & Church 1997, p. 252).

As early mentioned before, Apple always targeting on high end market, which means they have to face many uncertainty of purchasing power and behavior of their clients while the future global economy has variable condition of changing. The financial situation will be full of uncertainty to make forecast, it releases such a big impact to the market. Those uncertainty will cause Apple to lose their consumers quickly.

### Chapter 4. Presentation and analysis of data

#### 4.1 Financial analysis for apple and its device sector

*Figure 1*

Financial Analysis:

In Units	2014	2015	2016
Iphone	101,991	155,041	136,700
ipad	30,283	23,227	20,628
Mac	24,079	25,471	22,831
Services	18,063	19,909	24,348
Other			
Products	8,379	10,067	11,132
Total			
Net Sale	182,795	233,715	215,639

Source: Statista, "Global Apple iPhone sales from 3rd quarter 2007 to 2nd quarter 2018 (in million units)," <https://www.statista.com/statistics/263401/global-apple-iphone-sales-since-3rd-quarter-2007/>, accessed on July 14<sup>th</sup>, 2018

(1) Includes deferrals and amortization of related software upgrade rights and non-software services.

(2) Includes revenue from iTunes Store, App Store, Mac App Store, TV App Store, iBooks Store, Apple Music, AppleCare, Apple Pay, licensing and other services.

(3) Includes sales of Apple TV, Apple Watch, Beats products, iPod and Apple-branded and third-party accessories.

#### Data Analysis:

The segment of iPhone retail market growth from 2014 to 2015, and after 2015 the trend of growth slowdown by 1%(18341M), which reveals the growth of iPhone suffered a period of bottleneck. Even though Apple aims to continuously moving forward by releasing new cellphone models, optimizing the technology, from iPhone 5 to iPhone 7, from 4.7 inch to 5.5 inch screen.

## ***4.2 Apple's marketing strategy***

### ***4.2.1 Hunger Marketing***

Hunger marketing is a marketing strategy pioneered by Apple Inc. "Hunger marketing" refers to the intention of commodity suppliers to reduce production, in order to achieve the relationship between supply and demand control, manufacturing false demand, to maintain the higher price of goods and profit margins purposes. As well as Apple every time the introduction of new products will always be the general trend, people eager and look forward to the advent of new products. iPhone mobile phone, Apple to its iMac computer and iPod music player on the long practice of "hunger marketing" to a new height.

Apple has adopted a tight system of confidentiality, so that control the intensity of hunger. Apple gives consumers and the media an extreme desire for their information - from the imagination and conjecture of the industrial design of new product designs to the implementation of its business model.

When the new product is released, because the user's hunger was detonated, iPhone in the beginning of the sale of the week has been enabled 1 million. This is Apple's planned annual sales plan, in fact, only 6 days to achieve the goal in this.

In the sales channel is also "hungry" method to marketing their clients, and the user again and again staged a long wait in line. No one brand, which model of electronic products will get such a high density of attention.

### ***4.2.2 Apple's Virus marketing***

Through the user's word of communication publicity network, information spread like the virus and spread, the use of rapid replication of the way to thousands of tens of thousands of audiences. In other words, by providing valuable products or services, "let

everyone tell you", through others for your publicity, play a "marketing leverage" role. On the Internet, this "word of oral spread" is more convenient. Because this kind of communication is carried out spontaneously between users, so almost no cost of network marketing means.

Apple has made good use of its loyal fans' strong demand for its new product data. As a driving force for new product marketing activities, iMac and iPod have built enough "fans" for Apple to drive potential consumer concerns enthusiasm. iPhone launch is the case, iPad also appears the same. With such a high brand loyalty, but also competitors are difficult to catch up.

### ***4.2.3 Pull and Push Marketing***

Pull the strategy is the enterprise for the final consumer advertising campaign, the product information introduced to the target market consumers, people have a strong desire to buy, the formation of an urgent market demand, and then "pull" middlemen have asked to distribute this product. For example, the seamless connection between iTunes and iPod has brought huge profits to the company, the successful operation of the iTunes music store, the legitimate downloading of various music, and its cutting-edge portable music player features, resulting in a straight line of iPod sales.

Push marketing is the use of sales staff and brokers promotion, the establishment of communication channels with the target customers, to directly convey the relevant information to promote sales strategy. This strategy requires the use of a large number of sales staff to sell products, it applies to producers and brokers on the product outlook consistent view of the product. Push strategy risk is small, the marketing cycle is short, the funds are recovered quickly, but the prerequisite is to have the consensus and cooperation of the middlemen. For example, Best Buy Online has a section called "iPad and Tablet PCs". Their location is very unique and are placed alone. Apple likes retailers to sell their products as unique categories, rather than putting their products side by side with their competitors' products, both in store and online stores. And businesses are also very willing to do so.

## **4.3 App Store marketing model analysis**

App Store's marketing model is a self-marketing system based on the platform itself. Platform-centric, both to help developers to apply to the client, but also to help users find the desired product or service. The main marketing promotion means include:

1. Search engine: help users find the desired application based on keyword search.
2. Ranking: According to the user's preferences, based on 24 hours of real download data, launched a variety of charts. The leaderboard typically shows only 8-10 applications.
3. Ad slots: Provide ad slots for large application developers.

In addition to ranking in accordance with the download, there are time to sort the "NEW" (the latest application) list, recommended to the user's "Staff Picks" (recommended application) and other charts. Click to enter the list of the corresponding list, you can also follow the name, characteristics, release date of the selected category of software. Each application on the list has a unique made LOGO. In the application presentation, will be used



to buy points, prices, reviews, etc. in a prominent position to show. In particular, the configuration screen beautiful screenshots, to achieve the target user's effective attraction.

## 4.4 Model Analysis

### 4.4.1 Apple Business Model Analysis:

#### 1. the concept of online application store

Online application store refers to the service provider through the integration of industry chain partner resources to wireless Internet, Internet and other channels to build mobile phone value-added business transaction platform for customers to buy mobile applications, mobile online application services, carrier business, value-added services, etc. All kinds of mobile digital products and services to provide one-stop trading services.

Core value: for mobile software products to provide e-commerce trading platform.

Online application store products and services, including mobile applications, online application services, carrier business, value-added services, such as the four major parts.

*Figure 2*

Products and services segmentation	
Cellphone Device	Mobile phone software, mobile games, themes, music, pictures, ringtones and so on
Online Apps	Mobile online games, community, online shopping, online streaming media
Carrier Business	Recharge, operator package products, carrier data business
Value-added services	Various CP, SP value-added services

Source: Apple Inc, <https://support.apple.com/>

#### 2. Advantage:

iPhone terminal design excellence, the terminal system is highly unified, Apple has the ultimate absolute right to the terminal.

Sales channels and user channels a high degree of unity, increase the App Store terminal arrival rate. All along, Apple will be tightly in the hands of their own sales, mobile phone terminal completely embedded App Store, and make it the only channel for users to access applications for the development of the App Store pave the way for the smooth flow of communication.

With a high level of loyalty user groups.

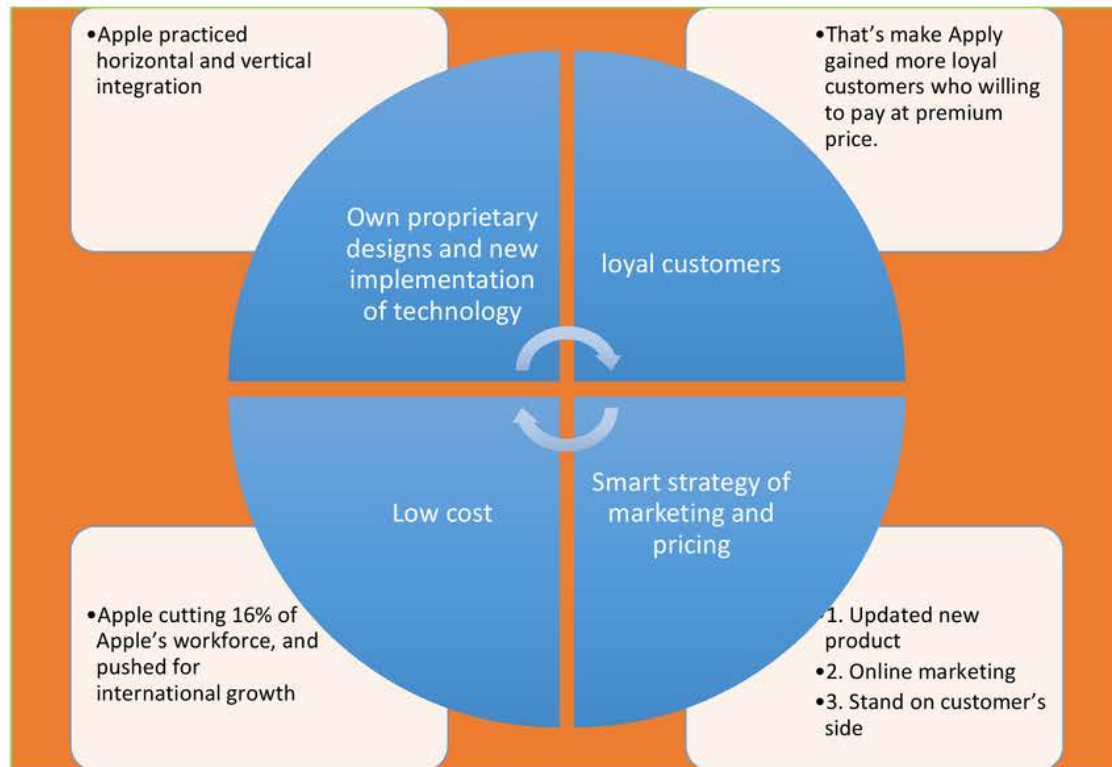
#### 3. Disadvantage:

Semi-closed wall-like development model is not conducive to the long-term development of the App Store.

#### 4.4.2 SWOT Analysis:

I made a chart of SWOT Analysis to present the status of Apple's strategy.

Figure 3



#### Strengths

- The competitive advantages of Apple attained its unique design combined advanced technology which serves a stronger position than other competitors and the amount of loyalty consumer increased fast which contributed a huge amount of revenue cash flow. That also increased Company's share market value in the world. Second, Apple has very special variety of software, products and apps which available on its apple store and for users to download to meet different demands of implementation. Third, icar, its most update cellphone type (iphone X) and other new innovative products will be released in the upcoming season.
- Since 2010, Apple championed many times title as the most pioneering company in the world.
- In the Q4 of 2014, Apple posted record profits of \$18 billion. Since 2012, Apple company has no debts and the gross profit margin is also higher than its competitors.

- Apple was received 155, 239 million cash in 2014 and its brand value more than \$76.5 billion(from 2014, Apple, Inc).
- By delivering with high quality customer and after sale service is an essential factor for Apple's retail store to get well known reputation influence power which increases brand awareness.

### **Weaknesses**

- High price would be unaffordable for large amount of potential clients under the competitive environment, and its competitors usually provide a lower price with similar function products to the consumers. In Chinese market, Mi, Huawei, Samsung are the main competitors for Apple.
- The trend of decreasing market share can be a factor to be less effective on its customers to apply closed ecosystem of Apple.
- Other companies disclaimed Apple Company frequently regarding disobeying their patents and here existed cases of lose in the trails as well. Such type of things would bring in negative influence on Apple's reputation in market.
- In 2012, the death of Steve Jobs, and the stock price dropped down which has the biggest loss for Apple Company. Since then John Browett and Scott Forstall left the firm, this will cause Apple lost supportive forces from management.
- In technology department, Apple's gross profit margin is satisfied and growing at highest point however according to fear of risk in the future forecast that Apple's current margin will not be maintained at the same level due to high prices and tough competition.
- With new released of iphone X, their retail of selling iPad and iPad mini has appeared decreasing in tablet market, there won't be any high demand in the future.

### **Opportunities**

- Apple's new generation laptop with optimized function will help company to gain as competitive advantage.
- With released Apple TV would brought increased revenue in the future.
- Apple can use their competitors violated patent case to defeat others reputation. To enlarge its influence power by collecting damages from them, and apple earned money from suing them.
- Apple knows the strategy of collaborating with advertisement networks on iPod touch, iPhone and iPad such platform to attain an opportunity of growth.
- The unique software of its icloud, gave their clients more capacity, functions to use, which made based services is increased a lot, so Apple can enlarge its services relate to iCloud and software as well.

### **Threats**

- Rapid technological change is the biggest risk which Apple and its competitors are experiencing unstable market and tough business environment. At released new product for meet the demand of technology lovers in the short term, and the firm has

high expense of R&D year by year, that's a huge pressure. So competition is pretty fiercely and it is very difficult to remain the competitive.

- Aggressive in Taxable charge in USA will affect the Apple's net profit and growth.
- Samsung, Huawei, and Mi are the tough competitors who provide application processors to Apple and it has asked to pay lower price available for clients. It should be asked Apple to pay more because there are no feasible substitutes who could provide Apple to application processors.
- The important threat from its competitor Android OS in mobile market. Apple iOS would be loss their position in the market.
- There are wide range of music stores available in the market like Wal-Mart, Amazon and other online music companies like sound cloud always capture the market share

#### 4.4.3 Porter's Five forces Analysis:

In order to present the relationship of five force, then I made this picture to present the relationship among different sector.

*Figure 4*



#### **4.4.3.1 Intensity of rivalry within the industry**

The first force of five forces of Michael Porter's model is high competitive on rivalry within the industry. The Apple Company has an excellent performance by providing advanced technical support in recent years and Apple gained huge amount of loyalty clients with released high quality products. So Apple never worry about their financial liquidity, and operational advantages, with great insolvency ability.

#### **4.4.3.2 Bargaining power of suppliers**

Apple had the weak force from bargaining power of suppliers. There are two external factors for suppliers regarding the weak bargaining power: one is high number of suppliers, second is the high overall supply to be taken in consideration. The level of weakness will indicate the influence of suppliers in imposing their demands. There are many suppliers in the world, with high level of supply for providing Apple products components. This part of the Five Forces analysis shows that it is not necessary for Apple to prioritize the bargaining power of suppliers in developing strategies for innovation and industry leadership.

#### **4.4.3.3 The bargaining power of buyer**

The Apple Company gain strong brand loyal from their consumers, with high competition of digital industry, Apple did release new products to attract more client. However, the bargaining power depends on different group of individuals for educational level, age and income. The buyers power of bargaining came from those two factors: low switching cost and small size of individual buyers. The purchasing power from customer always being polarized. It is easy to shift from Apple to other brands, and affordable buyers would be Apple's loyalty fans.

#### **4.4.3.4 Threat of new entrance**

**New entrance will base on three factors:**

1. High capital requirements (weak force)
2. High cost of brand development (weak force)
3. Capacity of potential new entrants (strong force)

Build a business model and operate a firm to compete against Apple, it won't be possible to success without having high capitalization. Because it is very costly to operate a strong brand to compete against big brands such as Apple. Therefore, the unknown small brand has weak power to entrance into the market. However, there always existed large firms with the strong financial capacity to influence the market and compete against Apple. Like Google, Samsung and Microsoft devices whom has strong potential power to influence Apple.

#### **4.4.3.5 Threat of substitute product**

The threat of substitute product was weak, but now it's being strong. In china, there are many fake Iphone on sale in the market, meanwhile, you also can find Goophone in Ebay, with Andriod system but the function as same as apple. The price of Iphone 6 is around 120 pounds, which is affordable for majority people. Therefore, threat of substitute might have three factors (price, availability of substitute and performance) which gives customer more options to choose what they want. Even though those substitute products have low performance and limited function, people still paid for it.

#### **4.4.3.6 Comparison:**

Apple created innovative technology, advanced hardware, released the core apple apps value experience, optimizes designs and its software for that hardware, improves its multiple functions with web services (iTunes and iCloud), and finally promotes the marketing strategy in the oversea market and its own retail stores.

By comparison with other competitors such as one of most popular software PC and Microsoft system, smartphone and tablet vendors make the hardware (Dell, Toshiba, Motorola, Samsung, etc), which combines more applicable software together (Windows and Android), add third party services (Google, carrier services, etc.) and then sell it through someone else's store (carrier retail stores, Best Buy, etc.)



#### 4.4.4 Financial Analysis

Figure 5

##### Analysis of Financial Statements

Income Statement	2016	2015	The difference	Net Growth Or Net Decrease(%)
Net Sales	\$233715	\$215639	-\$18076	-7.73%
Cost of Sales	\$140089	\$131376	-\$8713	-6.22%
Gross Margin	\$93626	\$84263	-\$9363	-10%
Operating Expenses:				
Research and development	\$8067	\$10045	\$1978	24%
Selling, general and administrative	\$14329	\$14194	-\$135	-0.94%
Total operating expenses	\$22396	\$24239	1843	8.23%
Operating Income	\$71230	\$60024	-11206	-15.73%
Operating Income/(expense), net	\$1285	\$1348	\$63	4.90%
Income before provision for income taxes	\$72515	\$61372	-\$11143	-15.36%
Provision for income taxes	\$19121	\$15685	-\$3436	-17.97%
Net income	\$53394	\$45687	-\$7707	-14.43%

\*All above amounts are in dollar(\$)

Source: Nasdaq, Income statement(2017,2016,2015),  
<https://www.nasdaq.com/symbol/aapl/financials?query=income-statement>  
 Accessed on July 18<sup>th</sup> 2018

#### Data Analysis:

Although Apple Inc. has spent more in research and deveopment in 2016 which is 24% more in comparison of year 2015 but the net sales income of the company is less because of iPhone products could not take up more market share. Net sales is decreased by 7.73% in 2016 and gross margin is also decreased by 10 % in the year 2016 which encountered Apple to losses. Operating income is also decreased by -15.73% in the year 2016. Talking about the Net income, Apple has encountered the losses of 14.43% comparison to the previous year. All this losses happened because Apple cannot make better sales in the year 2016.

#### 4.4.5 Verticle Ananlysis of Income Statement of Apple Inc.

Figure 6

Particulars	Year 2016 Amount in \$	Percentage	Remarks
Net Sales	\$215,639	100 %	
Cost of Sales	\$131,376	61%	61% of COGS seems quite high
Gross Margin	\$84,263	39%	
Operating Expenses:			
Research and development	\$10,045	5%	
Selling, general and administrative	\$14,194	7%	
Total operating expenses	\$24,239	11%	
Operating Income	\$60,024	28%	
Operating Income/(expense), net	\$1,348	1%	
Income before provision for income taxes	\$61,372	28%	
Provision for income taxes	\$15,685	7%	
Net income	\$45,687	21%	

\*All above amounts are in million dollar(\$)

Source:

Data Analysis:

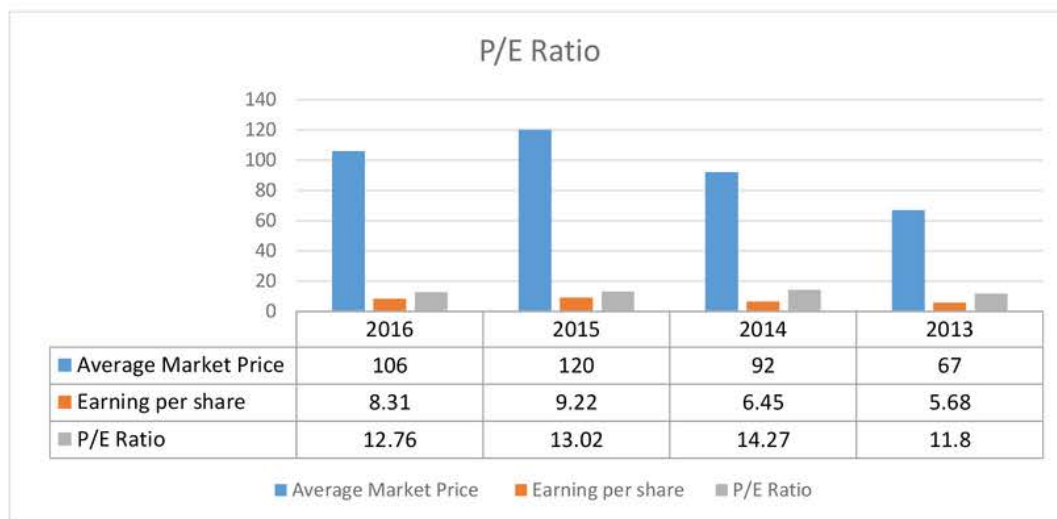


**Vertical analysis % = (each income statement item/Revenues) \*100**, according to Apple Income statement, its cost of good sold has 61% of revenue and in the end it also affected the net income drop to 21%, compared to cost of sale in 2015, 140,089. (which is 233,715-93,626. And  $140,089/233715=59\%$ ) which indicates that Apple faced high cost of sale since they released new product each year. Then their gross profit, EBIT decreased to 1%-2%. In long term, Apple will generally lost its advantages of sell. R&D expense always increased, because Apple did invest more money on R&D. Apple needs to reconsider about the cost strategy, or they will lose their market position when battling with HOV(Huawei, Oppo, Vivo). Despite the poor sales of Apple's mobile phones, Apple is a monopolist in the world high-end mobile phone market. Based on Apple in high end business performance, it has accumulated tons of Apple fans. But only by taking up high-end world wont be a sustainable strategy in the long term, because more domestic mobile exactly know how to enlarge the market share in the low end and middle end market, it will affect Apple's market position even affect its sale revenue.

I also make an take to show the proportion of expense for the financial statement to see the relation between each sectors.

#### 4.4.6 P/E Ratio & Other Ratio Analysis

Figure 7



Source: Nasdaq(2017) P/E Ratio, <https://www.nasdaq.com/symbol/aapl/pe-ratio> accessed on July 14th, 2018

Data Analysis:

### **P/E Ratio Analysis**

To calculate the share price to its per share earnings is just divided by market value per share by earning per share This ratio is also calculated using EPS from the last four quarters. This ratio is used to rate which shares in a given sector are dear and cheap to each other (Gottwald, 2012). **P/E Ratio = market value per share/ earning per share.**

Therefore, from the above data that P/E Ratio of the company in 2013 is \$11.80 and in 2014, it is \$14.27. The P/E ratio increased by 20%. Also in 2015 it is 13.02 and 2016 it is 12.76 . In comparision to 2015 P/E Ratio is has slighly decreased by 1.9%

### **4.4.7 Supply Chain Analysis**

According to Investor Apple since the launch of the first generation of iPhone smartphones in 2007, Apple has also begun to increase its career growth while also came up with high growth rates. Apple's operating income increased from US\$24 billion in 2007 to the highest point in 2015 to US\$233.7 billion, with an average annual compound growth rate of 33%; net profit increased from US\$3.5 billion in 2007 to US\$53.4 billion in 2015 The compound annual growth rate is as high as 45%. Apple's market value also grew from US\$70 billion in early 2007 to US\$800 billion so far, and it has grown to the highest market value in the world(Investor.apple).

### **4.4.8 Overview Of Supply Chain**

Apple's supply chain system has been perfect under Cook's operation. However, as analyzed in the previous article, there are still unbalanced supply and demand relationship which caused by short-term huge market demand and capacity ramped up when launching of Apple's new products. This situation makes it difficult for the global consumers to obtain Apple products at the first time. Although this contradiction exists widely in the consumer electronics industry, it does not rule out that Apple will further improve the supply chain system in the future. At the same time, through the in-depth control of its local suppliers and the internalization of all key innovative components, it combines accurate and dynamic tracking of global market demand by big data to solve this mismatch between supply and demand. We believe that Apple's multi-vendor model will not be changed in the long term. With the upgrading and transformation of the electronics industry chain in the mainland China and the shift of production capacity in Japan, South Korea and Taiwan, it is expected that the mainland will undertake the production and assembly of more parts and components of Apple products in the future. Panels, optical modules, acoustic modules, battery modules, electromechanical devices, structural parts and other components now have a strong production capacity, the sensor is also expected to move from Europe and the United States, chip technology may need more time to get developed.

## Chapter 5. Profit Analysis

### 5.1 Revenue Structure

Figure 9

**Worldwide Smartphone sales to End Users by Vendor in1Q17**

Vendor	1Q17 Units	1Q17 Market Share(%)	1Q16 Units	1Q16 Market Share(%)
Samsung	78,564.8	20.5	78,776.2	20.8
Apple	54,058.9	14.1	51,992.5	13.7
Huawei	40,426.7	10.5	34,181.2	9
OPPO	28,498.2	7.4	12,707.3	3.4
Vivo	28,173.1	7.3	30,922.3	8.2
Others	153,782.1	40.1	169,921.1	44.9
Totals	383,503	100	378,500.6	100

**Source:** Egham, UK, May 29, 2018, "Gartner Says Worldwide Sales of Smartphones

Returned to Growth in First Quarter of 2018",

<https://www.gartner.com/newsroom/id/3876865>

**Data Analysis:**

A research firm named Strategy Analytics released a report that the third quarter of the global smart phone market total operating profit of 9.4 billion US dollars, while Apple accounted for 8.5 billion US dollars, grabbed the global mobile phone market 91% of the profits. China's Huawei, Vivo and OPPO mobile phone manufacturers ranked 23rd, but the profit accounted for only 2.4%, 2.2% and 2.2%.

If Apple is far ahead of sales, profits accounted for a high proportion. But the reality is that Huawei in the global market share is only 3% less than Apple in recent year, and three chinese mobile phone sales in the third quarter 1.8 times higher than Apple.

Although the data analysis on the authenticity of reservations, Chinese domestic mobile phone made huge profitability moving ahead of Apple for a long time. As we all know, Apple and Chinese mobile phone is the biggest difference is from the application of IOS system, most of mobile phone the system are the same.

Some users are always misunderstanding that the Chinese mobile phone manufacturers attained the low profit to make profit and they survived very well by targeting on low income consumers, those consumes like the Android system as it's an open source, it does not charge any extra fees. The open source with more personalized

than IOS, to meet the demand of users, so Androids system market share is now being more popular than IOS in China. Therefore, the system is not the main reason.

On July 27<sup>th</sup> of 2016, Apple released the third quarter financial report. The revenue was 42.358 billion US dollars, lower than the same period last year 496.05 billion US dollars; and net profit for 2016 only earned 77.96 billion US dollars, compare to the last year with 106.77 billion US dollars, its sale revenue dropped down 27%. Though the report the third quarter revenue of 2016 in Chinese market was 8.848 billion US dollars, compared with 13.33 billion US dollars last year, it reduced to 43.82 billion US dollars (around 29.174 billion yuan).

According to the Daily Economic News Reports Apple's decline in revenue compare to Chinese mobile phone brand fast booming, Apple struggling with fiercely competition in China. Currently, among the world's top 12 handset manufacturers, nine of the cellphone company's headquarters are located in China, which takes up to one-third of the global smart phone sales.

By taking look at the mobile industry, the reason why China's mobile can be all the way booming, that's because of its faster speed of bringing a lot of innovation technology to the market. Nowadays, China is no longer the second largest market for Apple. From 2011 to 2015, Apple in China performed excellent in retail, of which half of the credit will be attributed to China, the last quarter of 2014, China officially became Apple's largest retail market, also Chinese mobile over performed retail growth reached 35% above the America native market. The second quarter of Apple financial statement in 2015, Apple's revenue in China achieved more than 16.8 billion US dollars, China became Apple's second largest global market.

#### Apple Performance of revenue Analysis:

In each generation of iPhone's life cycle, Apple has never made the official price cut, discounts encounter was rarely few. Last year in 2016, Apple's average selling price of \$ 624. While the average price of Android phones is only \$ 185. However, in the third quarter financial report, both of Apple's revenue and profits dropped down, especially in Chinese market, the revenue fell more than 3%. In term of sales, the fiscal report shows that Apple sold total of 409.99 million products of cellphone in the third quarter, it fell down around 5.335 million by comparing with 45.734 million in the same period last year according the released financial statement, but this number was slightly higher than analysts' forecasting average of 40.02 million. In the end of the second quarter of fiscal year 2016, Apple's revenue appeared the first decline since the year of the 2003, it actually has revenue of 50.557 billion US dollars, compared with \$ 58.1 billion in the same period last year which reduced \$ 7.453 billion in 2016. At the same time, iPhone sale performance was really disappointed because it has been the first decline. In the second quarter of 2016, iPhone sales were 51.19 million, compared with the same period of 61.17 million, the revenue reduced 9.98 million. In the aspect of declining results, Apple CEO Tim Cook was still very optimistic about this situation of sale because he was very confidence for the long-term potential growth opportunities in the Chinese market. In the past few years, CEO Cook has shown his optimistic attitude to the Chinese market as he did frequently visit China. Meanwhile, Apple had also invested in other transportation industry in China

as they believed Chinese market has performed well than average. But investors were disappointed with Apple's performance because it suffered declined in each segmentation, as many media or newspaper pointed out that Apple's situation in the Chinese market was getting worse, and it is very difficult to get back to the track of booming. The recent published research data show that Apple's share in the Chinese market fell down to 9% in June, compared to the same period last year, it dropped by 13.2 percentage points.

It is worth of mentioning that, due to the rise of Chinese mobile phone manufacturers, smart phones in the Chinese market competition being intensified. This trend is still spreading in the global market. Nikkei latest forecast report shows that Chinese enterprises this year, mobile phone shipments are expected to grow 15%, year by year. By 2018, Chinese enterprises will be accounted for half of the world's mobile phone shipments.

Apple for two consecutive quarters in the Chinese market suffered "waterloo", from the side also reflects the rise of China's local mobile phone manufacturers. China's mobile phone brand has been able to all the way in the high-end market to moving forward, but also from its faster speed will bring a lot of innovation to the market. Counterpoint's director of equipment and ecology research Neil S. Sand told CNBC that if Apple cannot accelerate the pace of innovation on hardware, it cannot be like every rival company in China each year or even each 6 month to launch new features, Apple will lag behind.

With the Chinese mobile phones continue to move forward to the high-end, and supporting the Chinese supply chain capacity is also a collective upgrade, there are some technology in the new Apple launch, China's supply chain manufacturers have already started research and development. Over the past year, with the Chinese mobile phones have turned to the high-end market, many excellent upstream supply chain enterprises began to strengthen cooperation with Chinese manufacturers.

## **5.2 Apple's Competitors in China**

Apple's Challenges in China: overpriced and imperfect features make some users hesitate to buy. Apple's problem in China is that those domestic mobile phones is getting better and better, the function can be compatible with Apple, but the price is significantly lower than Apple. In such circumstances, Apple is difficult to copy the iPhone 6 in China's success.

Now since 2016, Apple's product innovation is not high, new ideas are not enough, the lack of new bright spots and other problem caused by Apple's product market has been stay at saturated.

Apple mobile phones, computers, those sales in China have declined, just according to "the first mobile phone industry survey" released in June mobile phone sales charts, Huawei is still the first, how about Apple? Has fallen out of the top five reduced to 6, or even have been far behind other Chinese cellphone brands. But there's one thing that makes Apple worry about! According to Apple's fiscal report of 2016, Apple watch sales in the second quarter of 2016 sales of 1.6 million, Last year was 3.6 million at the same period it fell by 55% in 2016. Mobile phone crashed since 2016 and their newly product



Iwatch also crashed down. Iwatch was the first newly product released since Cook to replaced Jobs, Apple watches have been expected by their investors and clients, and now this new product made them disappointed a lot since there appeared many declines on the transcript of sale. Mizuho Securities analyst Abhey Lamba said: "Apple's advantage in the high-end market is still relatively strong, but the problem is limited space for high-end market growth; and low-end market products are also increasing competitiveness." For Apple sales plummeted, and at the same time Huawei has very amazing business performance, it reflected on its growth of revenue since 2015. Huawei working so hard so catch up Apple and maybe one day Huawei will become as rich as Apple?

Millet( Mi Cellphone), for example, released in 2011 millet 1, which priced at 1999 rmb(266.5 Eur), in a year after the twinkling of an eye down at least 700 rmb(93 Eur) to 1,200 rmb(160 Eur), and Millet in an interview had announced Millet even sold 10 billion smart phones, but profits are still zero in 2011.

During 2011, millet's performance turned out to disrupt the power status of many Chinese mobile phone manufacturers in Chinese market. Due to fear of Chinese consumers' sensitive to the price, the placement of market share leader would probably be seized, for a time almost all Chinese mobile phone manufacturers began to pursue with low prices, high technology with providing advanced camera technology.

Therefore when it compared to more than 5,000 yuan Apple phone, the average price of 1,000-2000 Rmb cellphone in the machine being more popular in China and that price of 1000-2000 Rmb is not a low profit margins.

"Chinese mobile core of technology": due to the problem regarding lack of native mobile phone core technology. In the core technology of smart phones, the chip is equivalent to the heart of the phone, its ability to directly affect the level of mobile phone operating speed.

Although the historical breakthrough of the Haisi chip greatly boosted the confidence of Chinese domestic brands, but the Haisi chip only for the use of a Huawei. For a long time, "Chinese core technology" was missing, and chinese mobile phone's core technology was take over by foreign manufacturers. They took over the core of the passive position, but there still no big change.

According to well-known chip maker Qualcomm's earnings data, China is Qualcomm's largest market, the previous fiscal year, Chinese mobile phone manufacturers contributed 53% revenue for Qualcomm, a total of 25.28 billion US dollars, most of which comes from the patent costs.(SouthChina Morning post)

Chinese mobile phone industry is large and they are not strong enough to seize India, Brazil and other developing countries market, in fact, from the operating system to the chip and then to the camera, most of these core technology from foreign manufacturers, behind the key technology, the core components still be very significant to users, high-end mobile phone market rarely see the domestic brand to get used to it. Chinese mobile phone manufacturers made big efforts to enhance research and

development capabilities, breaking the core technology blockade, and made cost-effective slogan revolution again, in order to enlarge the market share, but also attained multinational channel to cooperate with.

In recent years, Apple is based on the original basis of tinkering, relying on decades of accumulated technical dividends and patent, which has lower cost of R & D. In 2015, Apple's spending on R & D was \$ 8.6 billion, accounting for only 3.6% of the company's revenue(investor.apple). Compared with Apple, because Android system, storage space fragmentation and other issues, Huawei had to invest a lot of R & D staff to update in order to enhance the user experience. Chinese mobile's total investment for research and development in 2015 as high as 59.6 billion US dollars, ranked in the first for Industry of Chinese of research and development. R & D of a large number of inputs, limiting the acquisition of Huawei profits. And with the honest Huawei, Vivo and OPPO this step by step with more cost of billions of dollars in advertising and marketing. Such as, OPPO sponsored Hunan TV program, a year's title fee reached 550 million yuan. In order to highlight the brand youthful vibrant image, the HOV(Huawei, Oppo, Vivo) mobiles have signed very popular movie stars to marketing their products.

Recently, Huawei, millet, OPPO, ZTE Nubia, those core technology industry have released new models, from the price to the configuration, are interested in high-end models change. Such as Huawei's Mate 9 Porsche Design Edition, with 3D surface screen, equipped with 6GB RAM + 256GB ROM, priced at 8,999 rmb(1199 Eur), known as the history of the most expensive chinese mobile phone.

It is undeniably that they take out of the inherent tags of low-end machines, Chinese mobile phone manufacturers also had a long way to go, but fortunately its core technology still has been left behind of top cellphone brands. In the fierce competition with Apple, the chinese mobile phone manufacturers only refuse to adhere to the core technology and patent research and development innovation in order to achieve real rise and achieve the world's respect.

### **5.3 Apple's revenue structure**

From a quarterly perspective, the company's operating income and net profit exhibits certain seasonal characteristics in each fiscal year. The operating income and net profit in the first quarter were significantly higher than those in the other three quarters. There is some seasonal demand, resulting in the company's first quarter net sales compared with other quarters; The release of the product will also increase the company's first-quarter channel inventory at the supply side, which will affect the company's net sales and financial performance

*Figure 9*

### Quarterly operating income and net profit

	9/30/2017	9/30/2016	9/30/2015	9/30/2014
EBIT	\$ 61,344.00	\$ 60,024.00	\$ 71,230.00	\$ 52,503.00
Net Profit	\$ 48,351.00	\$ 45,687.00	\$ 53,394.00	\$ 39,510.00

Numbers in million of USD

Source: Nasdaq(2017), "Income statement of Apple, Inc",

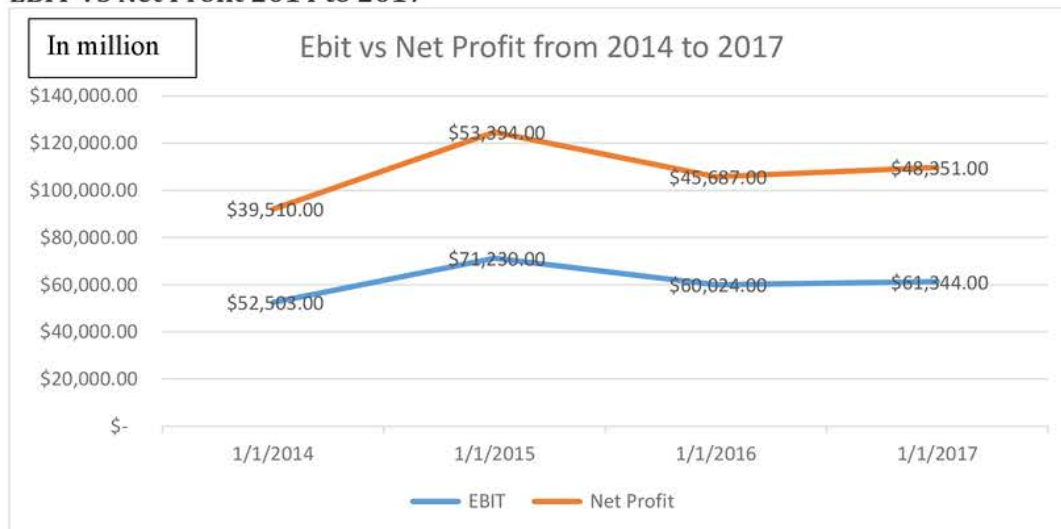
<https://www.nasdaq.com/symbol/aapl/financials?query=income-statement>

### Data Analysis:

EBIT(Operating Income) represents the Earning before Interest and Taxes, and both of EBIT and Net profit experienced the same financial issue, It shows in 2016 year, EBIT dropped to 15% and Net Profit dropped 14.5%, almost the same percentage of decrease and after 2016, their business performance has slight rise just because Apple released new product of Iphone X. However, due to the higher price than other average mobile brand there was slow increase, their market share still keeps at the same level as 2016. During the year of 2017, Apple's financial strategy didn't fit for the market status development, Apple's performance was suspicious by many analyst, it was getting lose its market share and at the same time, it bringing opportunities for Chinese mobile brand.

Figure 10

### EBIT VS Net Profit 2014 to 2017





Source: Nasdaq(2017), “Income statement of Apple, Inc”,  
<https://www.nasdaq.com/symbol/aapl/financials?query=income-statement>.

Data Analysis: To compare the data of EBIT and Net Profit, and thanks to EBIT always greater than Net Profit, so I use EBIT/Net Profit to get the proportion of occupation, then I calculated as  $39,510/52,503=0.75$ , and also I calculate other year, which are 0.75(2016), 0.76(2015), 0.788(2014) which reveals the correlation of Net Income and EBIT is positively moving forward.

## 5.4 Profit Model

The proposed profit model mainly focuses on the four big elements including: customer selection, value acquisition, strategic control, and business scope. A successful profit model is a mechanism that drives business growth and continuously bring in excess profits and update in a timely manner. Though this part, I would like to compare those different profit model among Huawei, Samsung, and Mi or OPPO. The existing methodology focuses on primarily discussing Apple’s corporate profit models from the perspective of strategic and how was their business decision-making works. The purpose to compare profit model between Apple and other mobile brand is to explore the internal logic between profit model and financial theory perspective. Nowadays, more and more entity management companies have adopted the asset-light profit model—funds with minimum inventory and fixed assets, and rely on their long-term supply chain capabilities, customer resources, brand culture, and technology research and development in order to control the cost of operation and risk. Increasing more high-tech industry advocates Human resources and other “asset-light assets” drives and integrates various internal and external resources, especially non-financial resources, and create unique competitive advantages and proves corporate financial performance. American Apple Inc. is a typical example of the profitable mode of light asset production. Thanks to its brilliant value achievements in product, business model, operation management, brand culture, etc., are so far unmatched by other companies. Christensen (2010) pointed out in the “How to Reshape the Business Model” that the great successful Apple has achieved in recent years does not depend solely on the adoption of new technologies but also combines new technologies with excellent business models. With combining hardware, software, and services makes digital music downloads simple and convenient, providing customers with the unprecedented convenience and unique value that has motivate Apple move to one of the top three mobile brands since 2014. In my point of view, Profit model innovation is more important than product innovation and service innovation.

## 5.5 The source of profit:

Cash flow structure has shaped the model of light asset profit get developed, then Apple’s newly released third-quarter 2017 financial report shows that the company’s cash reserves have reached US\$261.516 billion. As the world’s highest-margin company with the highest profits and most cash reserves, Apple’s profit model has become a target for many

companies to learn and emulate. From a financial point of view, Apple's profit model is summarized as cash flow structure-led asset-light profit model, and from the perspective of the supply chain, Apple's analysis of why it is so successful. The light asset model dominated by the cash flow structure mainly has the following characteristics: First, the company has a low ratio of fixed assets and inventory, and more liquid assets, especially cash assets; second, the company has a relatively high proportion of soft power assets, focusing on product R&D design and brand building, marketing channels, customer management and other aspects, and to operate as much as possible to operational partners, reduce their own investment and management costs, Apple in this regard is particularly known for its outstanding supply chain management capabilities. The characteristics of the financial asset-based financial statement can be summarized as the following table.

Figure 11

High	<ol style="list-style-type: none"> <li>1. Cash Reservation and Operating Capital</li> <li>2. Non-Interest Liabilities</li> <li>3. Assets turnover&amp;Inventory turnover</li> <li>4. R&amp;D expense</li> <li>5. Income cash flow &amp; other income</li> </ol>
LOW	Shareholders dividend(paid in cash) Inventory, net fixed Assets Cost of Capital & Interest expense Interest Liabilities

Reference: Apple, Inc(2016)

[http://files.shareholder.com/downloads/AAPL/6335537653x0x913905/66363059-7FB6-4710-B4A5-7ABFA14CF5E6/10-K\\_2016\\_9.24.2016\\_-\\_as\\_filed.pdf](http://files.shareholder.com/downloads/AAPL/6335537653x0x913905/66363059-7FB6-4710-B4A5-7ABFA14CF5E6/10-K_2016_9.24.2016_-_as_filed.pdf) Access on July 14th, 2018

Figure 12

Apple's Account Receivable vs Account Payable

	2017e	2016e	2015e	2014e
Account receivable	\$ 35,673,000.	\$ 29,299,000.	\$30,343,000.	\$ 27,219,000.
Account Payable	\$74,793,000	\$59,321,000	\$60,671,000	\$48,649,000

Source: Apple (2017) Balance sheet of Apple, Inc,  
<https://www.nasdaq.com/symbol/aapl/financials?query=balance-sheet>

Date Analysis: Account Receivable is one of the element for the Short-Term Asset, by comparing Account Receivable and Account Payable, we can see that Account receivable is far less than Account Payable, that reveals the company currently doesn't run very health, we also can understand that because Apple always stays at the level of borrowing, it operating model currently can't generate more cash flow to cover up the short-term debt. In my perspective, from 2014e to 2017 e, Apple did spend money on material, R&D expense and technology innovation, that made Apple owed money to Suppliers and other parties.

*Figure 13*

**Investment and Financing cash flow shows the situation of Finance for Apple, Inc**

	9/30/2017	9/30/2016	9/30/2015	9/30/2014
Cash and Cash equivalents	\$74,181.00	\$67,155.00	\$41,601.00	\$25,077.00
Cash flow from operating	\$ 63,598.00	\$ 65,824.00	\$ 81,266.00	\$59,713.00
cash flow from investment	\$(46,446.00)	\$( 45,977.00)	\$(56,274.00)	\$(22,579.00)
cash flow from financing	\$ (17,347.00)	\$ (20,483.00)	\$ (17,716.00)	\$(37,549.00)
Net Cash flows	\$ (195.00)	\$ (636.00)	\$ 7,276.00	\$(415.00)

Numbers in Million of USD

Source: Nasdaq, Cash flow statement of Apple, Inc.

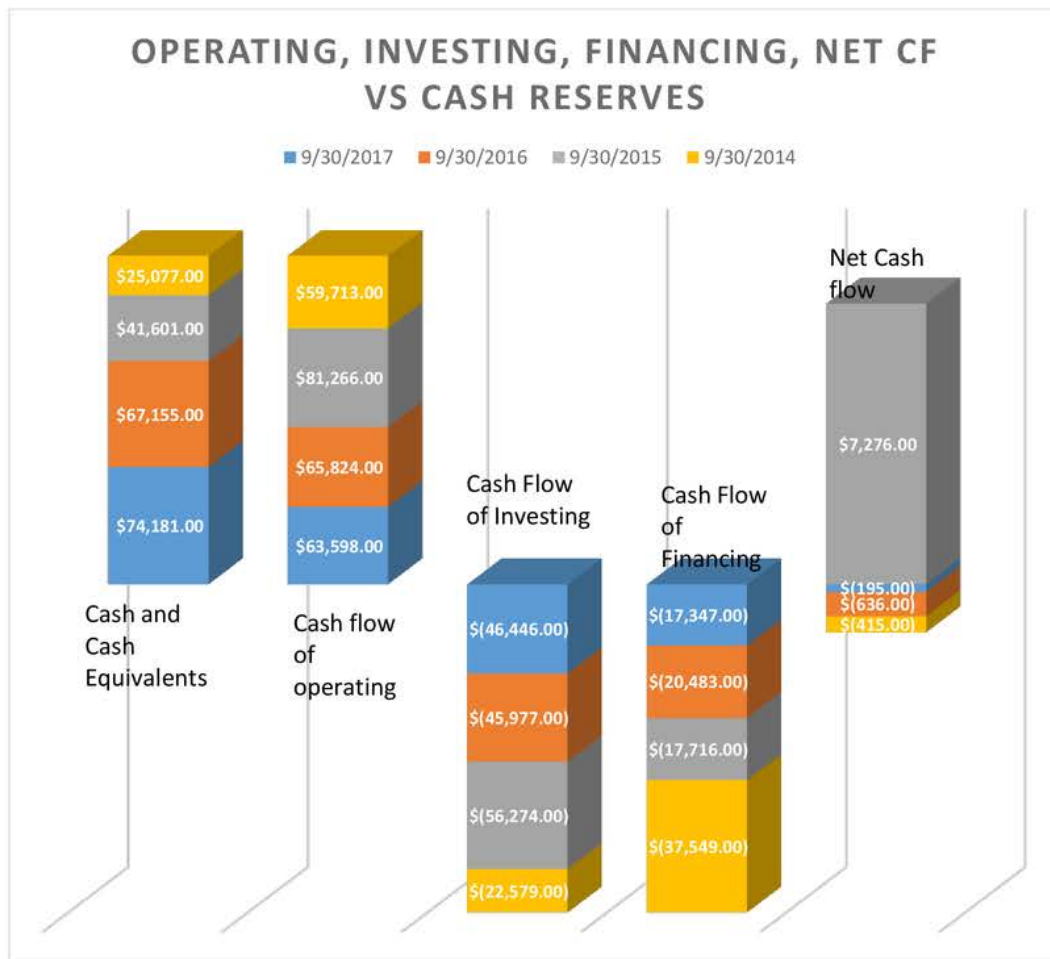
<https://www.nasdaq.com/symbol/aapl/financials?query=cash-flow>

Accessed on July 18<sup>th</sup>, 2018

Data Analysis: Since 2014, Apple experienced the sale decline because their new products didn't get good results of sale, and also Apple's market share is decreasing, at the same time, Apple still financing money to invest into R&D area, and their cost of business activities, that's why the cash flow of operating dropped since 2015. And investment cash is negative, which indicated that they couldn't get return for the investment they made in the past, such big problem always struggle to Apple, Inc. Only in 2015 their net cash flow is positive, others are negative.

*Figure 14*

## Cash Flow Overview



Source:

Nasdaq (2018). Apple's Cash flow Statement. Retrieved from <https://www.nasdaq.com/symbol/aapl/financials?query=cash-flow>,

Data Analysis: In 2015, the net cash flow has reached \$7,276 million which revealed Apple experience the best business compares to other mobile industry, but Apple didn't maintain the best performance after 2015, it dropped to negative 636 million in 2016, which means Apple got more financing activities without fully recognized their risk performance in the market. Apple then continues stays at the their debt model, financing new debts to pay off their old debt, and they even don't know how to get rid of such unsustainable model.

## 5.6 Huge cash reserves and free cash flow

Figure 15

### 5.6.1 Operating Free Cash Flow and cash equivalents( from 2014 to 2017)

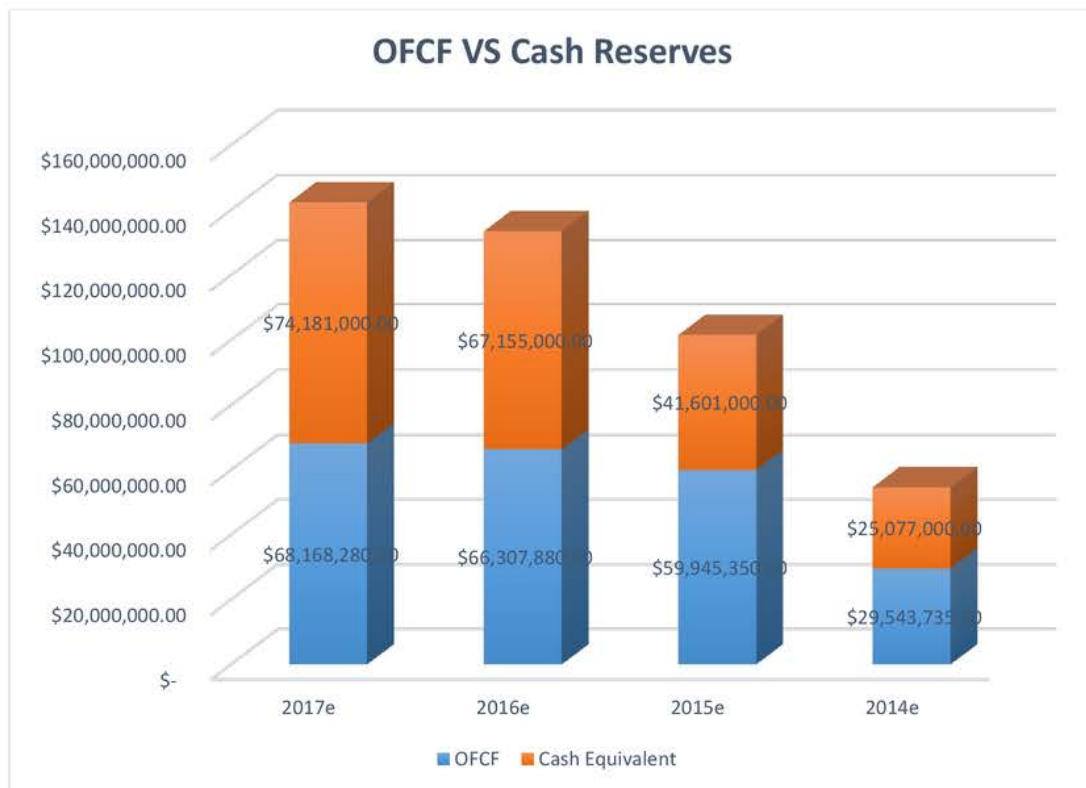
	2017e	2016e	2015e	2014e
OFCF	\$ 68,168,280.0 0	\$ 66,307,880.0 0	\$ 59,945,350.0 0	\$29,543,735.0 0
Cash Equivalent	\$ 74,181,000.0 0	\$ 67,155,000.0 0	\$ 41,601,000.0 0	\$25,077,000.0 0

Source: Macrotrends (2017), Financial Statement of Apple, Inc. Retrieved from <https://www.macrotrends.net/stocks/charts/AAPL/apple/balance-sheet>  
Date to access: July 14<sup>th</sup>, 2018

Data Analysis: Overall review, OFCF from 2014e to 2017e goes up quickly, which also indicated Apple has a efficiency Inventory Turnover, they sold their products fast than other Industry. That generated more cash flow and bringing more cash on their cash to use for other purpose. Trying to figure out the percentage of their business growth, by using cash equivalent of 2015 divided by cash equivalent of 2014, there was 1.65, 65% growth of the business. In 2016 there was 61%, and in 2017 was around 10% growth, then from 65% growth to 10%, it reveals Apple suffered a period of bottleneck, its not very easy for Apple to get more market share, they faced a tough war in the market. And regarding the free cash flow, it represents the same situation, since 2015e doubled the OFCF. Then after 2015e, Apple stabled their financial position in the market. However, if they still be very optimistic for their forecast of financial performance and ignore the potential risk, there won't be a good result for them.

Figure 16

#### OFCF VS Cash



The original data source: Macrotrends (2017), Financial Statement of Apple, Inc. Retrieved from <https://www.macrotrends.net/stocks/charts/AAPL/apple/balance-sheet>  
Date to access: July 14<sup>th</sup>, 2018

Description: Apple has extremely high cash reserves and positive free cash flow. Its cash and cash equivalents and marketable securities. The net cash flow from operating activities and free cash flow have also maintained positively growth. This is not only the value base of Apple, but also the corporate strategy. It comes up financial strategy plan, on the one hand, it associates in with its outsourcing strategy and strengthen its supply chain management capabilities; on the other hand, it can be waiting for investment opportunities and obtain external technical support.

In order to compare the proportion of cash reserves and OFCF, and to see each % of occupation. The method of Calculation is using OFCF divide by Cash Equivalent. For Example, in 2017e,  $74,181,000.00 / 68,168,280$  the result is 1.088 which indicates when  $OFCF < \text{Cash Equivalent}$ , the really cash on hand is more that the cash outflow, maybe it tells the company they have unpaid account payable, or something they owed for Tax Payment, or suppliers. And in 2016e, it came up with the same financial situation,  $67,155,000 / 66,307,880 = 1.012$ , and that number really close to 1, which means Apple, Inc in 2016 paid off suppliers and



Taxes. However, if you calculate the number in 2014e, 25,077,000/29,543,735 is 0.848, it reflects the opposite situation when OFCF>Cash is about over paid.

## 5.6.2 Operating Equity Cash flow of Apple Inc from 2015e to 2016e

Figure 17

	2017e	2016e	2015e
Capex	\$ (12,451,000.00)	\$ (12,734,000.00)	\$ (11,247,000.00)
Inventory	\$ 4,855,000.00	\$ 2,132,000.00	\$ 2,349,000.00
Account receivable	\$ 35,673,000.00	\$ 29,299,000.00	\$ 30,343,000.00
Account Payable	\$74,793,000	\$59,321,000	\$60,671,000
Change in OWC	(\$6,375,000.00)	\$89,000.00	(\$8,660,000.00)
Net Profit	\$ 48,351,000.00	\$ 45,687,000.00	\$ 53,394,000.00
Depreciation	\$ 41,293,000.00	\$ 34,235,000.00	\$ 26,786,000.00
Net Profit+Depreciation	\$ 89,644,000.00	\$ 79,922,000.00	\$ 80,180,000.00
EFCF	\$70,818,000.00	\$67,277,000.00	\$60,273,000.00

The original data source: Macrotrends (2017), Financial Statement of Apple, Inc. Retrieved from <https://www.macrotrends.net/stocks/charts/AAPL/apple/balance-sheet> Accessed on July 14<sup>th</sup>, 2018.

Data Analysis:

It is necessary to apply the calculation function to make a measure to see cash Apple having to evaluate the usage of equity capital since debt are paid by Apple, Inc. And this evaluation also be very important to shareholder since they review the financial statement of Apple, Inc. It means the availability of cash flow that shareholders can use.

The method is:

According to the Jensen, Michael C. (1986). "Agency costs of free cash flow, corporate finance and takeovers".

Such method is calculated as:  $FCFE = \text{Net Income} - \text{Net Capital Expenditure} - \text{Change in Net Working Capital} + \text{New Debt} - \text{Debt Repayment}$ .

Since I got those number OF FCFE, that not fair enough to evaluate it, because the investor prefer to see the dividend payment and share repurchase.

Figure 18

Operating Free Cash Flow of Apple Inc from 2015e to 2017e

	2017e	2016e	2015e
EBIT	\$ 61,344,000.00	\$ 60,024,000.00	\$ 71,230,000.00
TAX	25.50%	25.50%	25.50%
NONPAT	\$ 45,701,280.00	\$ 44,717,880.00	\$ 53,066,350.00
+			
Depreciation	\$ 41,293,000.00	\$ 34,235,000.00	\$ 26,786,000.00
- Capex	\$ (12,451,000.00)	\$ (12,734,000.00)	\$ (11,247,000.00)
- inc. OWC	(\$6,375,000.00)	\$89,000.00	(\$8,660,000.00)
OFCF	\$ 68,168,280.00	\$ 66,307,880.00	\$ 59,945,350.00

Source: Macro Trends,  
(2017),<https://www.macrotrends.net/stocks/charts/AAPL/apple/balance-sheet>. Access  
on July 14<sup>th</sup>, 2018.

According to the Jensen, Michael C. (1986). "Agency costs of free cash flow,  
corporate finance and takeovers".

Such method is calculated as:

$$\text{OFCF} = \text{EBIT}(1-T) + \text{depreciation} - \text{CAPEX} - \text{D working capital} - \text{D any other assets}$$

Figure 19

OFCF and EFCF

	2017e	2016e	2015e
OFCF	\$ 68,168,280.0	\$ 66,307,880.0	\$ 59,945,350.00
EFCF	\$70,818,000.00	\$67,277,000.00	\$60,273,000.00

Source: OFCF and EFCF are all from previously calculation, please check the **Figure #**

The original data is from: Macro Trends,  
(2017),<https://www.macrotrends.net/stocks/charts/AAPL/apple/balance-sheet>. Access  
on July 14<sup>th</sup>, 2018.

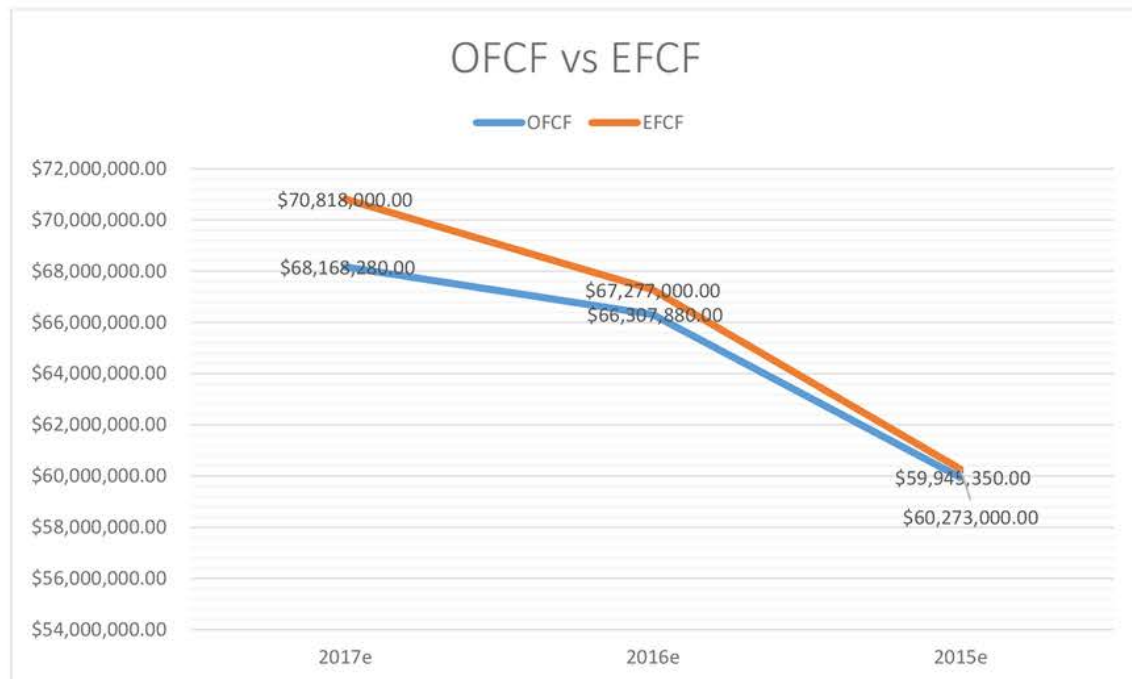
Data Analysis:



From 2016e to 2017e, OCF there was 2.81% growth of OCF, which indicates the short growth of its sale as they released new product Iphone X, and from 2015e to 2016e, there are 10.61% growth of OCF since they released Iphone big screen mobile, the market was larger than 2017 and 2018, their new products were so popular in 2016. From 2016 e to 2017e, the EFCF growth reached 5.26% positive growth and from 2015e to 2016 e, EFCF has 11.62% growth, then we can say in this case, OCF and EFCF has the same trend growth, it shows the positive correlation.

Figure 20

Comparison:



Data Analysis: By achieving the data of OCF and EFCF from 2015e and 2017e, OCF and EFCF are rising, but as we knew in the past with calculated Net profit and EBIT, it shows declined. There existed negative correlation in Apple's case, but OCF is focus on cash-generating capabilities of the firm.

This strategic structure of the financial structure provides sufficient working capital for various strategic initiatives of the company, and also for the operation and strategy. Risk sets a thick fire. When I calculated the OCF EFCF, then I got numbers for each sector from 2017e to 2014e, this is easy to see OCF always below the EFCF.

### 5.6.3 The Ratio of fixed Assets and liquid Assets

Figure 21

#### *The Ratio of fixed Assets and liquid Assets*

	9/30/2017	9/30/2016	9/30/2015	9/30/2014
Liquid Assets	\$ 128,645.00	\$ 106,869.00	\$ 89,378.00	\$ 68,531.00
Fixed Assets	\$ 246,674.00	\$ 214,817.00	\$ 200,967.00	\$ 163,308.00
Total Assets	\$ 375,319.00	\$ 321,686.00	\$ 290,345.00	\$ 231,839.00

Source: Nasdaq(2017), "Financial Ratio of Apple, Inc"  
<https://www.nasdaq.com/symbol/aapl/financials?query=ratios>

Data Analysis: In 2017, the liquid assets takes up 34.28% of the total assets, compare to 2016(28.47%), it has around 6% increase, which means Apple was optimizing its capital and assets structure. Generally speaking, from 2014 to 2017, there is around 5% to 6% stable growth of liquid assets, it refers to Appple working on adding more liquid assets reserves, to get more cash and inventory and other assets on hand. Let's look at its Fixed Assets proportion, from 2016 to 2017, it has 8% growth which is slight bigger than liquid assets, because Apple spent money on investment on long term assets to be more productivity and innovation always caused many expenses on its Income statement. Since Apple started to invest money into develop their new products neach year, its unavoidable that Apple has to buy the fixed assets to support the whole operion in oversea market.

Figure 22

#### **Ratio& operating Working capital**

	9/30/2017	9/30/2016	9/30/2015	9/30/2014
The Ratio of Fixed Assets	65.72%	66.78%	69.22%	70.44%
The Ratio of Liquid Assets	34.28%	33.22%	30.78%	29.56%
Operating Working Capital	(\$34,265,000.00)	(\$27,890,000.00)	(\$27,979,000.00)	(\$19,319,000.00)

Data Source: Source: Nasdaq(2017), "Financial Ratio of Apple, Inc"  
<https://www.nasdaq.com/symbol/aapl/financials?query=ratios>

Data Analysis: Due to production outsourcing, the proportion of fixed assets of the company is very low, and the ratio of current assets is high. The ratio of fixed assets to total assets of the company is maintained at around 10% year-round, while the ratio of current assets to total assets is maintained at about 90% all year round. The company's debt level has also been maintained at a relatively low level, the company's current liabilities as a proportion of total assets from 30% before 2008 to about 25% in recent years, it about half of which from the company's accounts payable according to Apple's official financial statement. Therefore, the company's working capital allocation ratio has also been maintained at a relatively high proportion, accounting for about 70% of the current assets

## 5.6.4 Current Assets and accounts receivable

*Figure 23*

### *Current Assets and accounts receivable*

	9/30/2017	9/30/2016	9/30/2015	9/30/2014
Current Assets	\$ 128,645,000.00	\$ 106,869,000.00	\$ 89,378,000.00	\$ 68,531,000.00
Account Receivable	\$ 35,673,000.00	\$ 29,299,000.00	\$ 30,343,000.00	\$ 27,219,000.00

Data Source: Nasdaq(2017), "Balance sheet of Apple, Inc"  
<https://www.nasdaq.com/symbol/aapl/financials?query=balance-sheet>

Data Analysis: From 2016 to 2017 and 2015 to 2016 there is 27% growth in account receivable, which means Apple working the strategy by providing products to let their clients to try without prepaid payment policy. However, since 2015, the Account Receivable ratio was decline from 33% and 39% to 27%, their new policy means Apple sale has suffered bottleneck it won't be like the year 2015, the market generated more sells and good performance like current years.

## Chapter 6. Comparison Analysis Between Apple & Other Rivals.

### 6.1 Apple vs Nokia Inventory Turnover in days

*Figure 24*

### *Apple vs Nokia Inventory Turnover in days*

	Nokia(Days)	Apple(Days)
Sept. 30, 2017	81.27	11.18
Sept. 30, 2016	68.66	6.226
Sept. 30, 2015	67.75	6.472
Sept. 30, 2014	63.3	6.473
Sept. 30, 2013	79.39	6.691
Sept. 30, 2012	36.07	4.047
Sept. 30, 2011	33.99	4.498
Sept. 30, 2010	30.09	7.087
Sept. 30, 2009	27.17	5.364
Sept. 30, 2008	34.52	5.925

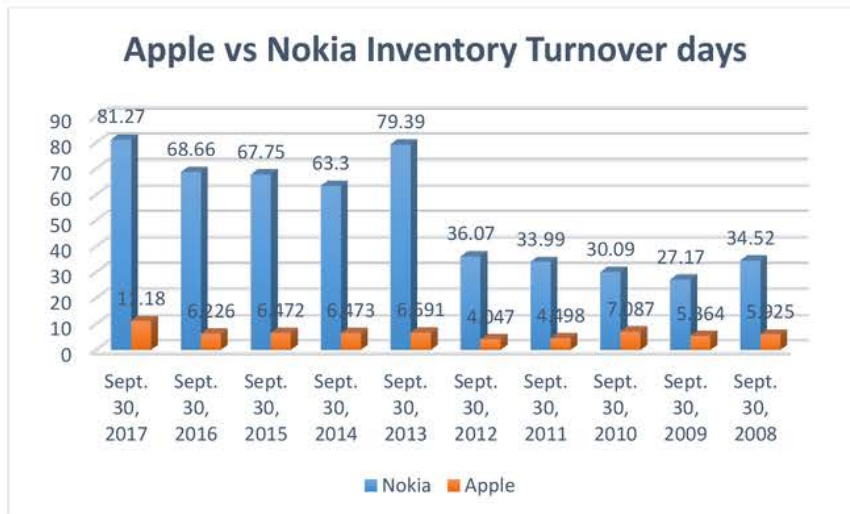
**Source:** *WSJ(2017)*, <https://quotes.wsj.com/AAPL/financials/annual/balance-sheet> accessed on July 14th, 2018

*WSJ(2017)*, <https://quotes.wsj.com/FI/NOKIA/financials/annual/balance-sheet> accessed on July 14th, 2018.

***Explanation of Data:***

Apple's mid-1990s due to continuous demand forecast errors and supply chain management out of control, resulting in new products usually out of stock and while other products are overstocked, the company has been reshaping production and inventory management since 1997 and has maintained a low level of inventory. In 2016, inventory was only \$2132 million, which only accounted 0.77% for the proportion of current assets. The inventory turnover days of the company have remained at less than 7 days in the past ten years. The inventory turnover days in 2016 were 6.26 days, and the stock turnover rate was as high as 58.64 times, it was the second highest inventory turnover rate compares to McDonald in the world. The turnover period is only two days, far ahead of similar technology companies.

From a supply chain perspective, an important reason for Apple's low inventory turnover days is its streamlined product line. For example, many components of the iPhone products such as iPad and MacBook can be used universally. Apple has to save a lot of time in managing the supply chain, it can obtain more favorable purchase prices and accelerate inventory turnover.



Data Source: **WSJ(2017)**, <https://quotes.wsj.com/AAPL/financials/annual/balance-sheet> accessed on **July 14th, 2018**

WSJ(2017), <https://quotes.wsj.com/FI/NOKIA/financials/annual/balance-sheet> accessed on July 14th, 2018.

Data Analysis: Apple has shorter inventory turnover, which means their products very popular in the market, and Nokia's turnover days always more than 27 days, its becoming less liquidity, that also released the risk of their business operation once their inventory level still in the high stock and get paid in the long period, their funds chain will default. The longest day Apple gets its turnover is 11.18days and Nokia needs 79.39 days which is 7 times higher than Apple. If Nokia still working on their current financial strategy, it is not far away for Nokia to disappear in the market.

## 6.2 Apple vs Nokia Inventory Turnover Ratio

Figure 25

### Apple vs Nokia Inventory Turnover Ratio

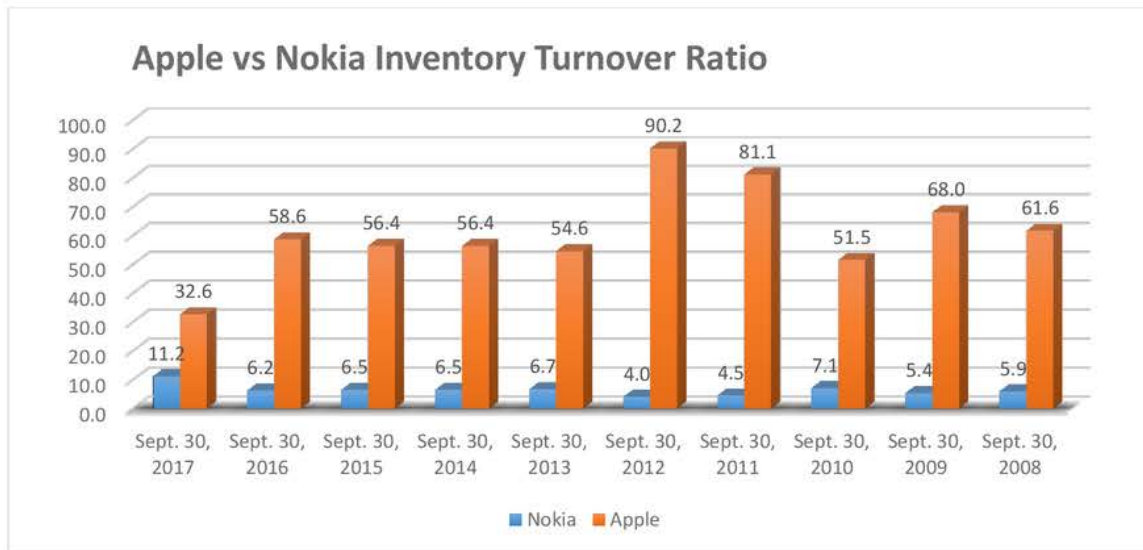
	Nokia	Apple
Sept. 30, 2017	11.2	32.6
Sept. 30, 2016	6.2	58.6
Sept. 30, 2015	6.5	56.4
Sept. 30, 2014	6.5	56.4
Sept. 30, 2013	6.7	54.6
Sept. 30, 2012	4.0	90.2
Sept. 30, 2011	4.5	81.1
Sept. 30, 2010	7.1	51.5
Sept. 30, 2009	5.4	68.0
Sept. 30, 2008	5.9	61.6

Data Source: **WSJ(2017)**, <https://quotes.wsj.com/AAPL/financials/annual/balance-sheet> accessed on July 14th, 2018

WSJ(2017), <https://quotes.wsj.com/FI/NOKIA/financials/annual/balance-sheet> accessed on July 14th, 2018.

Data Analysis: Focus on the supply chain, efficient operational efficiency whether it is Apple's strong cash growth or its impressive inventory turnover, it is inseparable from Apple's strong supply chain management capabilities. Cook can successfully take over Steve Jobs' position as Apple's CEO. It relates to the fact that he established Apple's supply chain system to support such comprehensive entity. Apple outsourcing all its manufacturing, but it will not be able to grasp the supplier's ownership and operating rights. In addition to chip design, many other key components are also jointly developed with its suppliers. This move not only exposes the company to a huge supply risk, but also poses a considerable challenge to the entire company's supply chain precision control and management. In locking and stabilizing the upstream parts suppliers and foundry manufacturers, Apple has the following characteristics and advantages in terms of its huge cash reserves: ODM outsourcing, uniform raw material purchase prices, and compression costs; strict control of the number of suppliers, generally there are only 2-3 suppliers of parts to improve management efficiency while reducing supply risks; through huge orders and cash pay in advance, strategic monopoly supply and production capacity of key component suppliers, while ensuring that suppliers in production and supply Apple's stock, special funds to support small suppliers with whom has technological advantages, and signed a "priority supply agreement."





Data Source: **WSJ(2017)**, <https://quotes.wsj.com/AAPL/financials/annual/balance-sheet> accessed on **July 14th, 2018**

WSJ(2017), <https://quotes.wsj.com/FI/NOKIA/financials/annual/balance-sheet> accessed on July 14th, 2018.

#### Data Analysis:

We can see the company's high operational efficiency brought by the company's leading supply chain management level through several key indicators. First, the company's accounts receivable turnover rate and total assets turnover rate are much higher than similar technology companies, and the receivables turnover days are lower than similar technology companies, indicating that the company has strong bargaining power and recovery accounts in the upstream and downstream. Its total asset turnover is higher than comparable companies, further illustrating Apple's extremely high asset management quality and asset utilization efficiency. The company's cash turnover days have been negative turnover days since 1999 and reached 58.6 days in 2016, which means that Apple's entire sales activities are funded entirely from its suppliers, reflecting Apple's strong ability to take up supply chain funds.

### 6.3 Nokia's fall vs Iphone's Brilliant

Looking at Apple's supply chain management from studied the failure of Nokia and though analysis the Nokis's Inventory turnover ratio, Apple is the absolute leader in the mobile phone industry. The rise of Apple is accompanied by the decline of Nokia. Nokia's failure has many reasons. However, if we compare Apple's financial indicators with Nokia, it is not difficult to see that Nokia compared to Apple's supply chain. The huge management



failures and Apple's success in supply chain management. The huge failure in supply chain management and Apple's success in supply chain management.

## 6.4 Differences in inventory management

Comparing the inventory turnover rate(Figure 25) between Apple and Nokia, Apple's inventory turnover rate has been maintained at more than 61 in 2008 and during the 2017, it dropped to around 32 and Nokia's inventory turnover rate has been increased from 2007which is 5.9 to 11.2. The huge different of inventory turnover reflects Apple's and Nokia's completely different inventory management strategies. Since 1997, Apple has reinvented its production and inventory management, and has maintained a low level of inventory. The higher the inventory turnover, the shorter the process from manufacturing to sales, and the greater the number of profitable companies, this explains the reasons for Apple's high profitability. The high inventory level of Apple reflects the period for the sale of corporate goods. Higher inventory load may generate a backlog of funds, which will affect Nokia's profitability.

## 6.5 Differences in upstream and downstream bargaining power

### 6.5.1 Nokia VS Apple Account receivable Turnover Rate

*Figure 26*

*Nokia VS Apple Account receivable Turnover Rate*

	2017	2016	2015	2014	2013
Nokia Account receivable Turnover Rate	3.02	3.18	2.73	3.11	3.97
Apple Account Receivable Turnover rate	6.41	7.31	7.62	6.73	8.28

**Data Source:** WSJ(2017), <https://quotes.wsj.com/AAPL/financials/annual/balance-sheet> accessed on July 14th, 2018

WSJ(2017), <https://quotes.wsj.com/FI/NOKIA/financials/annual/balance-sheet> accessed on July 14th, 2018.

**Data Analysis:** Comparing the turnover rate between Apple and Nokia, Apple's accounts receivable turnover rate has remained more than double than Nokia from 2013 to 2017; and Nokia's accounts receivable turnover rate has remained at 5 times or so. The receivables turnover rate is the average number of times the company recovers receivables

within one year. The higher the value, the stronger the company's ability to operate payment collection and the shorter the corresponding account period. With its unique supply chain management strategy and huge purchase volume, Apple gains important discourse power among suppliers. Apple's outstanding accounts receivable turnover rate reflects its extremely high bargaining power both upstream and downstream, on the other hand Nokia distributors' alliance and lower costs make Nokia lose the power of in the bargaining with buyers, thus affecting Nokia's ability to recover accounts receivable and its operational effectiveness.

## 6.5.2 Nokia VS Apple Account receivable Turnover Rate

*Figure 27*

### **Nokia VS Apple Account receivable Turnover Rate**

	2017	2016	2015	2014	2013
Nokia Account receivable Turnover Days	120.9	114.8	133.7	117.36	91.9
Apple Account Receivable Turnover Days	56.9	49.9	47.9	54.23	44.08

**Data Source: WSJ(2017)**, <https://quotes.wsj.com/AAPL/financials/annual/balance-sheet> accessed on July 14th, 2018

WSJ(2017), <https://quotes.wsj.com/FI/NOKIA/financials/annual/balance-sheet> accessed on July 14th, 2018.

### ***Data Analysis: Apple's account receivable Turnover***

Apple has half shorter days of receivable turnover, and Nokia took long days of account receivable Turnover, that because of their sell performance and market value. When Apple achieved its high market value, it made other mobile brands desired to catch it up. However, the former leader brand Nokia had collapsed quickly which made its consumer feel so depressed. Moreover, The MI mobile that was founded in 2010 took only three years and won the first place in China a few years ago. Then it was also overtaken quickly by Huawei. The rapid development of Chinese mobile such as OPPO and Vivo also illustrated the rapid rise of domestic mobile phones industry in recent years.

## 6.6. Receivables and Accounts Payable of Apple, Inc

Figure 28

**Receivables and Accounts Payable (Apple)(Unit: USD 100 million)**

	2017e	2016e	2015e	2014e
Account receivable	\$ 35,673,000.00	\$ 29,299,000.00	\$ 30,343,000.00	\$ 27,219,000.00
Account Payable	\$74,793,000	\$59,321,000	\$60,671,000	\$48,649,000

Data Source:

Data Analysis: In 2017, Account Receivable takes up 47.7% of Account Payable, and in 2016 it has 49.39%, Account receivable shows 2% deceased because Apple did received cash from their clients to have more liquidity on hand. From 2016e to 2017 e, Account Payable increased 26% because of R&D expense, they to do the financing activity to get borrowed more money on it in order to keep their business activity moving forward. Apple always has high cost of R&D, because they are the leader of technology innovation. They already got involved into high debt model, that not very health for their financial strategy.

## 6.7. Investment and financing cash flow shows the growth of the company

Figure 29

### 6.7.1 Samsung Cash Flow Statement

	Samsung Cash Flow Statement			
	9/30/2017	9/30/2016	9/30/2015	9/30/2014
Financing Cash Flow	\$(9,172,993.00)	\$(9,010,909.00)	\$(2,659,921.00)	\$802,542.00
Investment Cash Flow	\$(27,275,173.00)	\$(19,635,116.00)	\$(16,169,039.00)	\$(26,748,049.00)
Operating Cash Flow	\$35,541,981.00	\$31,966,957.00	\$24,686,498.00	\$28,129,807.00

Data Source: Samsung, Inc(2017)

<https://www.samsung.com/global/ir/financial-information/audited-financial-statements/>

Accessed on July 14<sup>th</sup>, 2018

Data Analysis:

The company's cash flow statement shows that the company's cash flow from investment activities maintains a net outflow during most years. This is mainly due to the fact the company purchases more short-term investment workload, but it also receives large investment returns from short-term investment. On the other hand, the company purchases more investment activities such as plant, equipment and technology patents, making the company's investment cash flow appear as a net outflow. By taking a look for Samsung, it experienced the same financial situation as Apple as their Investment cash flow is negative from 2014 to 2017, and during the recent year, they made so many investment activities to moving forward and growth very fast. The operating cash is positive from 2014 to 2017, it means Samsung Group has earned money from Operation segmentation. After 2014, Samsung's financing shows negative which reveals Samsung do the same thing as Apple, to borrow funds from financial institution or their shareholders, but they couldn't pay off their debts in short term.

In terms of financing activities, the company's dividend policy began to change from 2014, from the original non-cash dividend distribution policy to the distribution of cash dividends, and began to accelerate stock repurchase program at the end of 2014, resulting in the company's cash flow from financing activities from 2014 From the positive turn to the negative, but the company's cash dividend policy and stock repurchase plan also shows the management of the company's continued development of the future is optimistic and confident, to a certain extent, play a role in boosting the stock price.

## 6.7.2 Apple vs Samsung Financing Cash flow

*Figure 30*

### *Apple vs Samsung Financing Cash flow*

	9/30/2017	9/30/2016	9/30/2015	9/30/2014
Financing Cash Flow(APL)	\$ (17,347,000.00)	\$(20,483,000.00)	\$ (17,716,000.00)	\$ (37,549,000.00)
Financing Cash Flow(Sam)	\$(9,172,993.00)	\$(9,010,909.00)	\$(2,659,921.00)	\$ 802,542.00

Data Source: Samsung Inc(2017), <https://www.samsung.com/global/ir/financial-information/audited-financial-statements/>  
 Nasdaq(2017), Cash Flow Statement,  
<https://www.nasdaq.com/symbol/aapl/financials?query=cash-flow>

### Data Analysis

By comparing financing cash flow between Apple and Samsung, as one of Apple's big competitor Samsung also has negative financing cash flow but they probably borrowed less than Apple. After 2015, Samsung's Financing Cash flow shows a negative increase because

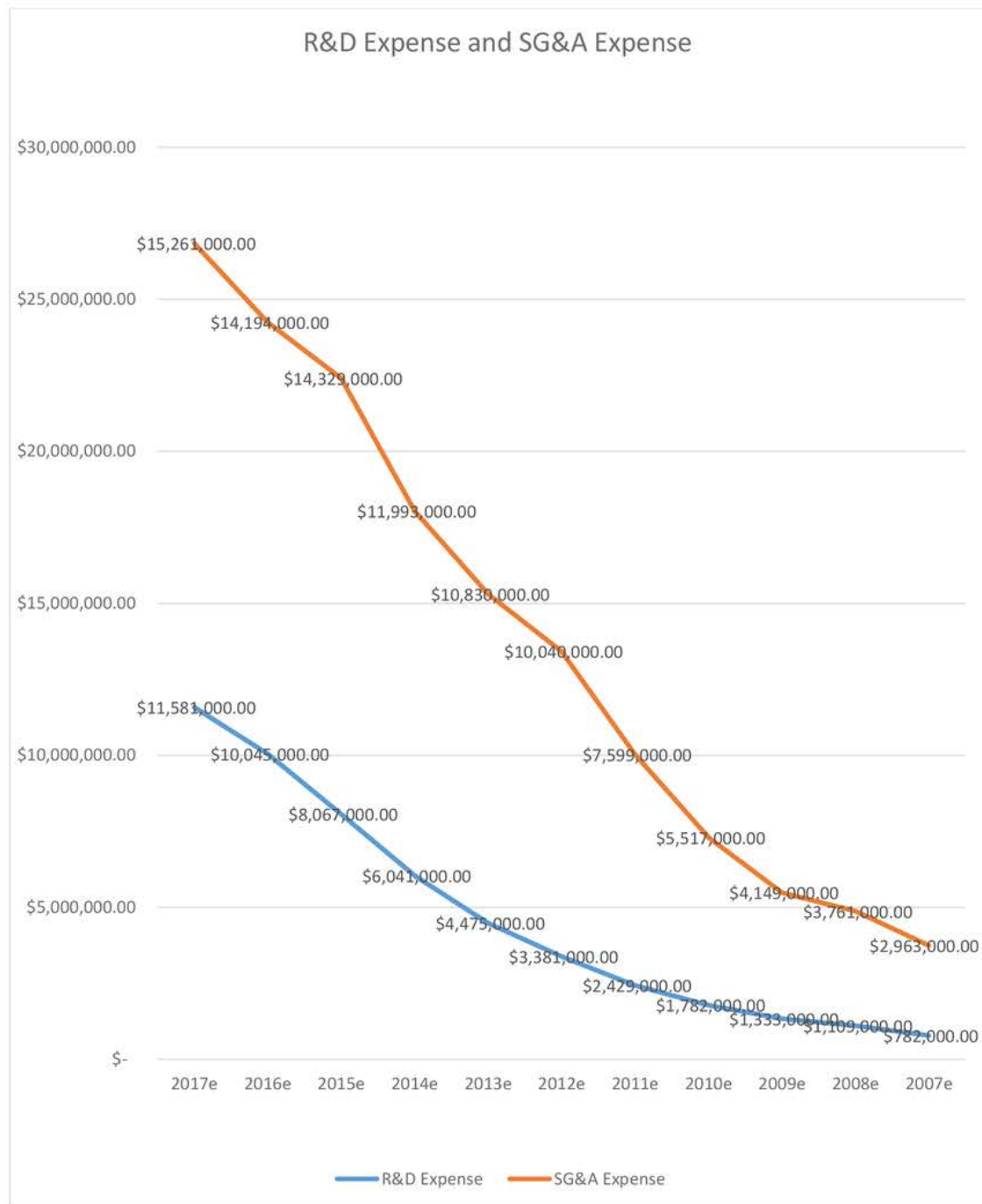
Apple has the best performance in that period and Samsung faced a big challenge, in order to release their new product to get full competitive power, then Samsung started to get borrowing and use the funds into investment or other business activities. And in 2017, Apple's financing cash flow decline 18%, it indicated Apple use their cash reserves to get paid their old debts and the model still maintains at the old ones, that is borrow new money to pay off their old debts.

## ***6.8 Increase R&D investment***

Although there is no absolute "data advantage" for Apple's R&D expenses, Apple's small and refined product line, this allows Apple to focus on the company's outstanding R&D personnel and other resources to produce unique product line. The rich R&D resources of a single product line lays the foundation for Apple to build high-tech barriers on this product line. Take smartphones as an example. Apple only launches one new mobile phone each year, focusing on creating excellent quality. On the contrary, its competitor Samsung, Huawei, Vivo and Oppo companies always introduce more than one new product every year. Then their average R&D cost per new product will be reduced. In addition, Apple's sales costs are lower than other companies, so there is more money will be invested in product development, through the product to promote its sales performance, creating a unique magic to attract consumers.

***Figure 31***

R&D invested trends Yearly, SG&A Expense

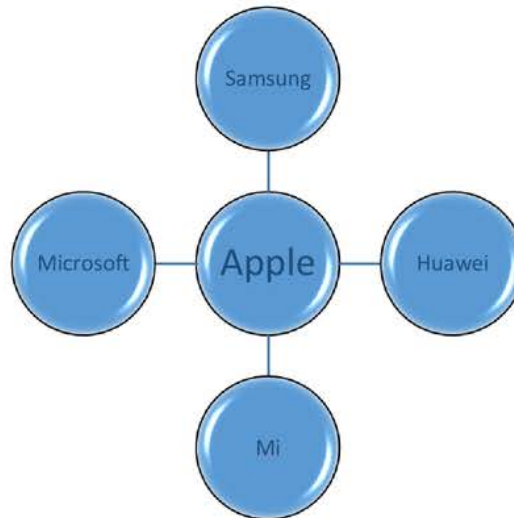


Date Source: Nasdaq(2017), Income Statement,  
<https://www.nasdaq.com/symbol/aapl/financials?query=income-statement>.  
 Accessed on July 14<sup>th</sup>, 2018.

The way to explain the dramatic rise in Apple R&D is to focus on the year-over-year increase in expenditures on a quarterly basis. As seen in Figure #, beginning in FY2Q17, Apple R&D expense growth always on an uptrend as they need to be competitive to have newly products in the market. Apple, Inc expected to have more than \$11,581 million increase year-over-year in Apple R&D expenditures in FY2Q18 will be nearly 25% higher than the previous R&D expense growth record because from 2016 to 2017 its R&D was 15.2%(11,581/10,045-1). From 2015 TO 2016 its R&D has 33% growth (8,067/6,041-1). Those data means Apple was moving forward to something else. Moreover, SG&A cost growth is 7%( 15,261/14,194-1), which increased slight slow than R&D cost.

## 6.9 Apple with its Rivals

**Figure 32**



I make this picture to present how Apple compete with its rivals. Apple (18.3%), Samsung (18.1%), Huawei (10.6%), OPPO (7.3%) and the first five mobile phone manufacturers in the fourth quarter of 2016, respectively, and the first five mobile phone manufacturers in the second quarter of 2016, Vivo (5.8%). In the Note 7 after the explosion, Samsung lost share is gradually being taken away by Apple(IDC Worldwide Quarterly Mobile Tracker, 2017,(IDC(2017),<https://www.idc.com/getdoc.jsp?containerId=prUS42268917>).



## **Chapter 7 Apple still can create legend of sale.**

### **7.1 Apple is heading down?**

Recently, Counterpoint research agency released the report of the Chinese mobile phone market in 2016, the data shows that there would be around five consecutive years to beat the apple, in 2016 in the Chinese market year on year growth was go down as much as 21%, of which, OPPO and vivo year on year up to 109% and 78%. It also earned a lot of assumption in the market, said OV defeated the apple, beyond the apple on segment of selling.

Although the Chinese market, Apple's share has declined, but we still look at Apple's earnings it. Then we talk about going beyond and defeating.

Apple Inc. iPhone 7 listed after the first full quarter of sales exceeded market expectations, Apple in the end of the end of 2016 the end of the first quarter sold 78.29 million iPhone, compared with 74.78 million in the same period in 2015 has increased. This is the iPhone sales in the first quarter of the year sales growth year on year. iPhone accounted for the company's total revenue of more than two-thirds. Apple CEO Cook (Tim Cook) said that the first quarter iPhone 7 Plus demand is particularly high. The report shows that Apple's first quarter net revenue of 78.351 billion US dollars, compared with 75.872 billion US dollars last year, an increase of 3%, a record high. Apple services, including the App Store, Apple Pay and iCloud, grew from 18.4 percent to \$ 7.17 billion (2017, Apple Inc).

Furthermore, according to Apple's fiscal statement, iPhone first quarter of 2017 sold to 78.29 million, year by year sales growth; first quarter net income of 78.351 billion US dollars, What's the fact behind of these figures?

Of course, it is worth of noting that Apple's Greater China revenue fell 11.6% to 16.23 billion US dollars, where you can reach a conclusion, that is, the rise of chinese mobile phones last year, Apple has a great impact, but also shows that chinese consumers gradually switch out of Apple. And Apple want to catch back the share of the Chinese market, it must be fully optimized than their previous product, to be more innovative in software application. Otherwise, Apple will lose more market share this year. However, from Chinese mobile phone innovation perspective, if they want to beat Apple also need a long way to go, at least, domestic mobile phone needs to work hard in the patent and innovation.

Although Apple is the world's highest market value of listed companies, but it rarely disclosed their own strategies to let the outside world know how it is to make the company's market value soared to 800 billion US dollars, according to CNBC Beijing.

### **7.2 SUDDENLY RISE OF HUAWEI**

Although the Huawei's mobile phones has been performed a very strong development in recent years, it has greatly overtaken Apple and Samsung. In fact, Huawei had already set up a mobile phone division in 2003. In February 2004, Huawei took the first

WCDMA mobile phone in China to participate in the 3GSM conference in Cannes, France, and conducted a rich business presentation at the conference. However, Huawei officially launched its first Android smart phone, Pulse in 2009. The following year it began to deploy a full range of Android smart terminals.

Huawei Mobile Phone sale PHS Series, E Series, U Series, C Series, T Series, F Series, X Series, Honor series, Ascend, Mate and other models, mobile phone materials have also experienced the era of the functional machine and the early stage of the smart machine stage, then the metal unibody, and this year's it came with a glass enclosure, it is basically followed the development trend of the entire industry. That indicates there are few innovative activities that leads the era of innovation. Although the Huawei P1S, which created the world's thinnest smartphone record in 2012 and P6 with the all-metal unibody as thin as 6.18mm in 2013, was also featured during the period, it also introduced a curved screen and a dual lens. The surface glass model and the forthcoming full-screen Mate10 are quickly to grasp market trends, but regarding such amazing performance, it is hard to say that Huawei will surpass Apple, Samsung and other mobile brands in terms of its application of mobile phone materials and appearance of industrial design.

In terms of marketing strategies and channels, Huawei and Apple, Samsung and other vendors basically are the same. They used multiple channels, multi-tier distribution, and online and off-line integration. However, Huawei, as a new brand image, its ability of execution power for the tactical implementation needs to be improved, and its direct entity stores experienced a slow growth. The development is relatively slow, and there is a relative lack of experience in coordinating the interests of various parties. Huawei's offline channels have not been very satisfied. In terms of international market channels, Huawei has its own certain advantages. Huawei has established a certain connection at the global markets. It is familiar with the communication standards of various countries and has established its own branch system. Operator channels plays an important role in Huawei's marketing system. In terms of computer intelligent interaction, Huawei does not have outstanding absolutely advantages when compares to Apple and Samsung. For all of Chinese domestic mobile phone manufacturers have not been able to compete with Apple, Samsung's market leadership of ore technology. Therefore, the core technology is the dominant element for being a leading company. In terms of ecology, unlike Huawei, which focuses on consumer electronics products, Huawei's mobile phone is a subsidiary segment of Huawei Group. Huawei, as a communications company, still has an even larger network system to build.

Huawei's supply chain management is still unable to compete with Apple. Most of its suppliers are domestic manufacturers. Although there are certain advantages in the labor cost of components, it cannot be counted as the comparative advantages of markets around the world. It is worth of mentioning that Huawei's efforts of independent research and development of mobile phone chips since in 2004. Huawei's independent research and development of mobile phone core components will not only help it get rid of the threats of competition such as Qualcomm and other companies but also help enhance the stability of its supply chain and increase its own brand image.

### **7.3. The sudden rise of OPPO and Vivo**

According to the domestic mobile phone market shipments released by Counterpoint, a well-known market research organization, in the second quarter of 2017. The market shares of OPPO and Vivo were 18.8% and 17.0% respectively, ranking at the second and third place in the market. The OPPO R series and X series of OPPO and vivo are both generated tens of millions of sales in the market, supplemented by economy models with low cost, making them ranked in the top three positions.

The success of OPPO and Vivo mainly lies in the fact that it has captured the attention of the target customer group, that is, they have succeeded in the first aspect of attention. OV(oppo&vivo) first paid great attention to aesthetics in design. The feature of thin and light has always been the DNA of OPPO R series design. OPPO R series adopts metal curved surface design. In addition, the OPPO R series enriches the colors of mobile phones. The OPPO R11 introduced colors such as black, gold, rose gold, and red, which are satisfied with the preferences of OV(oppo&vivo) -targeted groups from youngsters. The OPPO featured two highlights in its design: First, it adopted a dual-camera dual camera technology, and second, its VOOC flash quick charging technology. OV series handsets have 20 million HD pixels before and after, internal use of OPPO and QUALCOMM's flagship image processor jointly optimized; OV (oppo&vivo) supports VOOC flash charging technology, charging for 5 minutes, calling period lasts for 2 hours, and can quickly add power in fractional time.

Another major aspect of OV's(oppo&vivo) success is in channel constructed and marketing promotion. As OV's(oppo&vivo) channel construction has captured, the advantage of the Internet channel is that it can reduce the cost of about 30% of the level of distribution channels; however, online space is not unlimited, and its extension speed is far lower than the expansion ambition of other Internet brands, so starting from 2015, the advantages of offline channel layout structure has been very apparently to generate revenue. OV(oppo&vivo) adopts the channel integration method of manufacturers and builds its own channel system. There is a certain capital relationship between manufacturers and distributors, and closer cooperation is achieved. In addition, OV's strong celebrity endorsement and advertising marketing have made OV(oppo&vivo) a great success among young people. The main point of view of OV(oppo&vivo) in the future is whether it can continue its success in the field of smartphones under a single networking system. After the competition of smart phones entered the inventory competition stage, can OV(oppo&vivo) rely on its channel construction and brand marketing to continue to maintain market share and even expand its advantages; when the competition of enterprises starts to enter the high level competition, will OV continue to strengthen its hardware and software? The development of the ecosystem has become one of the major aspects of the OV development in the future.

## **7.4. The Future Of Apple**

### **7.4.1. Design, materials, channels**

First of all, the more certainty is that lighter, thinner, and larger screens account for the future. iPhone's model is even the trend of all mobile phones. The borderless and full

screen trend is irreversible. This is followed by the return of glass materials, wireless charging and the advent of 5G to promote double-glazed glass. After the ceramics process is gradually mature and its yield rate is improved, it is believed that the application of ceramic materials in apple products being more extensive, and the application of ceramic shell was bringing profitability for iPhone. When Iphone 7 started to bring their clients with waterproof function, from the trend of reducing the USB connection of Macbooks and iPhone's headphone interface has been replaced by the charging connection, it is very likely that Apple products will completely cancel the exposed interfaces in the future.

In terms of channels, it is expected that Apple's multi-level distribution system and online and offline combined sales model will not undergo major changes, but the sales channels of products will be more comprehensive. It is expected that the proportion of online sales will continue to increase, and the physical stores will further clarify the experience. The number of global start-up markets will increase with the development of new markets and product demand.

## **Chapter 8 Conclusion**

In short, Apple's revenue still has a very large cyclical. And the market's expectation for the company is based on the expected periodicity. As long as Apple can continuously break through the expectations of the market, it is not difficult for Apple to reach market value of trillion. In the mobile phone sector, as China continues to introduce cheaper mobile phones, it has squeezed some low-end markets. In the high-end market, Apple's products are still firmly in control of the top position. Even the famous 'notch' screen, which was scorned by everyone, has now become the object of imitation trends. Even if the mobile phone market is slowly approaching saturation, Apple's leadership position is still unbreakable. Most importantly, Apple is constantly trying new products. Companies that have huge amount of cash reserves are constantly trying to make mistakes. There are always successful products and opportunities to catch the next trend.

## **Chapter 9 Suggestion**

1. Since top Chinese domestic brands released a huge threat to Apple in Chinese, and HOV( Huawei, OPPO, Vivo) and they know how to build a good network relationship with other famous enterprises to bring more revenue. However, Apple is not good at operating partnerships with other companies, but for the common business interests, Apple must strengthen cooperation with other companies. However, the market's expectations for Apple are still too high. If Apple cooperates with other companies, they usually worry about suffering serious economic losses. Thanks to Apple released Apple pay, it is unavoidable that Apple have to think about their strategic cooperation plan. In my perspective, Apple need to formed other strategic alliance to get combine with other enterprises by sharing their innovation of technology, Apple shouldn't be

very conservative for the future cooperative strategy plan. Otherwise, it won't enable Apple to be a better position in the market. Especially for Apple Pay, they need to strength the relationship to work with bank, also it is very necessary to provide some bonus or discounts for new users. Or it will be tougher for Apple Pay to get survived in the market as increasing more clients complained about there was 30% commission charged by Apple Pay. As far as I concerned, one of the biggest competitor Paypal never did that same thing to Apple pay. On the contrary, Apple Pay should learn somethings from Paypal by improving the customer check out experience.

2. Apple should launch its full screen products by follow up Andorid mobile's threat as Vivo and Oppo has released their new product since May 2018. Apple will release three new model iPhones this year. They are two 5.8-inch and 6.5-inch upgraded iPhoneXs, both of which are OLED screens, and the other is a new iPhone with a 6.1-inch LCD screen. But unfortunately, Apple didn't recognize how important to release full screen product without notch. According to Vivo Nex with 6.5-inch, so the upcoming mobile trends in design would be full screen without notch. As we know, increasing more mobile consumers are expecting bigger screen cellphone to perform more office task when they go outside for business. So 7-inch screen will be the future mobile trend. However, if 7-inch iphone will be released in the market, then Apple needs to consider about its pricing strategy. If the price would be 800 eur around, that will be very competitive as Android phone usually pricing from 500 eur to 700 eur.
3. Chinese Telecom has released the "China Telecom 5G Technology White Paper", 5G is also be the next generation core network, and Android mobile already working on application of 5G, sooner or later 5G mobile will be gradually released. Qualcomm also indicated that it will launch 5G mobile phones in February and March next year. For consumers, whether to support 5G also needs to be included in the consideration. So far, Apple haven't work on 5G application or plan to release any 5G related products. If Apple can realized that 5G era is an important event to promote their products, that will be very beneficial to enlarge their market share.
4. As a supplier of some of the most expensive mobile hardware, Apple does not include a fast charging kit. Although battery life has not improved as we hoped, charging the battery is faster. Fast charging is a standard in the entire Android market, not just high-end devices, you can buy the \$250 Moto G6 and get a turbocharger in the box, which allows you to use it for 6 hours in a 15-minute charge. In fact, you can get a 50% charge in the 30 minutes on the iPhone x, 8 and 8 plus, but you have to buy a UBC to the data cable and a power plug that supports USB power transfer. If you buy from Apple, it's an extra \$75 usd, you can make them cheaper if in the next generation products Apple can focus on solving this issue. If Apple wants us to pay \$1,000 for iPhone X and even \$700 for iPhone 8, then it should include a quick charger. It is unreasonable for us to accept current limited features with expensive pricing, and we really want to see Apple solve this problem.
5. Apple replaced the fingerprint reader with Face ID. This facial recognition feature uses the iPhone X's front camera to confirm mobile payment and unlock the phone.



When I was lying on my side, one of my eyes was closed, or my face was hid in the pillow. In this case, there is no way to identify the Face ID. Of course, this is not Apple's fault. Apple's mistake is that iPhone X does not provide a satisfactory alternative to the sleepy eyes of in the morning. With Face ID, you can't quickly unlock your phone. This is not comparable to fingerprint recognition. Instead, I would choose to enter a six-digit password because doing this is faster than unlocking with Face ID. Moreover, Face ID sometimes have not solve the lock function yet. If this issue happens multiple times a day, you will feel annoyed. Apple needs to solve such kind of issue by releasing another fast unlocking face ID system.

## Reference

1. Adam Lashinsky, "The Genius Behind Steve Jobs," *Fortune Magazine*, November 10, 2008.  
Turner, "Secret of Apple Design."
2. Ben Lovejoy, 2017, "Apple & Samsung lose smartphone market share as Chinese brands continue to grow", <https://9to5mac.com/2017/05/23/iphone-market-share-gartner-q1-2017/>
3. Chao, Loretta, Luk, Lorraine, & Back, Aaron. "Sales of iPhone in China Set Under 3-Year Accord," *Wall Street Journal*, August 31, 2009. See <http://www.wsj.com/articles/SB125144884553566179>.
4. Christen, Clayton M. "Reinventing Your Business Model" 2008, *Public Business Review*.
5. Daniel Turner, "The Secret of Apple Design," *Technology Review*, May 2007.
6. Evelyn Chen, 2017, "Cramer tells analyst his Sunday night Apple downgrade was 'showboat' call".  
"<https://www.cnbc.com/2017/06/12/cramer-tells-analyst-his-sunday-apple-downgrade-was-showboat-call.html>"
7. Fletcher, Owen. "UPDATE: China Telecom Network Compatible Apple iPhone Regulatory Nod," *Wall Street Journal* (Online), 19 January 2012.  
Yee, Lee Chyen. op.cit.
8. Gottwald R. 2012. "The Use of the P/E Ratio to Stock Valuation. GRANT Journal," Vol. 31, pp 21-24.
9. Horngren, H. J. (2012). " Financial Statement Analysis. In Fianancial & Managerial Accounting (p. 723)." New Jersey, USA: Pearson Education, Inc.
10. Peter Burrows, "The Seed of Apple's Innovation," *Business Week*, December 12, 2004.
11. Wei Wei, Wuxiang Zhu, "Business Models and Transaction Value, Costs and Risks.," in *Approaching Business Models from an Economic Perspective*. SpringerBriefs in Business. University of Peking, 2013.  
"<http://www.bookmetrix.com/detail/book/0cc20327-1c51-44fc-89f5-dce20d33894f#citations>"



12. White G. I., Sondhi A. and Fried D. (1998), "The Analysis and Use of Financial Statements. John Wiley & Sons, Inc."
13. Wingfield, Nick. "After iPhone Sales Bonanza in China, Apple's Profit Nearly Doubles," *New York Times* [New York, N.Y.] 25 Apr. 2012
14. Wild, J. J., Shaw, K. W., & Chiappetta, B. (2013). "Financial and Managerial Accounting: Information for Decisions(5th ed)". John Wiley & Sons, Inc.
15. Ye Juliet, Comment on "A Brief History of iPhones in China", The Wall Street Journal, comment posted August 27, 2009,  
<http://blogs.wsj.com/digits/2009/08/27/a-brief-history-of-iphones-in-china/>,
16. Yarow, Jay. "iPhone Bombs in China, Only 5,000 Sold in First Weekend," *Business Insider*, 3 November 2009.
17. Zajas, J & Church, O. 1997, *Applying Telecommunication and Technology from a Global Business Perspective*, Haworth Press.
18. Zhang, Chan. "Apple Moves Closer to Offering iPhone for China Telecom," *ECNS.cn*, 11 January 2012.
19. "Qualcomm's sales forecast shows that China's smartphone market is on the mend", SouthChina Morning Post, April 26<sup>th</sup>, 2018.  
<https://www.scmp.com/business/companies/article/2143400/qualcomms-sales-forecast-shows-chinas-smartphone-market-mend>
20. FRAMINGHAM, Mass. February 1, 2017, "Apple Tops Samsung in the Fourth Quarter to Close Out a Roller Coaster Year for Smartphone Market."  
<https://www.idc.com/getdoc.jsp?containerId=prUS42268917>
21. "Samsung to Invest \$18.6 Billion in South Korea to Widen Lead in Memory Chips and Smartphone Displays" July 4<sup>th</sup>, 2107, Fortune News.  
<http://fortune.com/2017/07/04/samsung-invest-south-korea-chips-smartphone/>
22. Yazmani Reyes, Octubre 2, 2017,  
["http://epicurusinvestments.com/category/bloomberg-news/."](http://epicurusinvestments.com/category/bloomberg-news/)
23. Joe Rossignol, Jan 13<sup>th</sup> 2017, " Apple vs Samsung Lawsuit Over Iphone Design Officially Reopen", <https://www.macrumors.com/2017/01/13/apple-vs-samsung-reopened/>

24. Jensen, Michael C. (1986). "Agency costs of free cash flow, corporate finance and takeovers". American Economic Review. 76 (2): 323–329.doi:[10.2139/ssrn.99580](https://doi.org/10.2139/ssrn.99580).

Web Citation:

Web cite:

1. Statista, " Share of Apple's revenue by product category from the first quarter of 2012 to the second quarter of 2018," <https://www.statista.com/statistics/382260/segments-share-revenue-of-apple/>, accessed on July 14th, 2018.
2. Apple Inc, <https://support.apple.com/>
3. Source: Nasdaq, Income statement(2017,2016,2015), <https://www.nasdaq.com/symbol/aapl/financials?query=income-statement>  
Accessed on July 18<sup>th</sup> 2018
4. Nasdaq(2017) P/E Ratio, <https://www.nasdaq.com/symbol/aapl/pe-ratio> accessed on July 14th, 2018
5. Source: Egham, UK, May 29, 2018, "Gartner Says Worldwide Sales of Smartphones Returned to Growth in First Quarter of 2018", <https://www.gartner.com/newsroom/id/3876865>
6. Source: Nasdaq(2017), "Income statement of Apple, Inc", <https://www.nasdaq.com/symbol/aapl/financials?query=income-statement>
7. Nasdaq(2017), " Income statement of Apple, Inc", <https://www.nasdaq.com/symbol/aapl/financials?query=income-statement>.
8. Apple, Inc(2016)  
[http://files.shareholder.com/downloads/AAPL/6335537653x0x913905/66363059-7FB6-4710-B4A5-7ABFA14CF5E6/10-K\\_2016\\_9.24.2016\\_-\\_as\\_filed.pdf](http://files.shareholder.com/downloads/AAPL/6335537653x0x913905/66363059-7FB6-4710-B4A5-7ABFA14CF5E6/10-K_2016_9.24.2016_-_as_filed.pdf)
9. Apple (2017) Balance sheet of Apple, Inc , <https://www.nasdaq.com/symbol/aapl/financials?query=balance-sheet>
10. Nasdaq, Cash flow statement of Apple, Inc. <https://www.nasdaq.com/symbol/aapl/financials?query=cash-flow>
11. Nasdaq (2018). Apple's Cash flow Statement. Retrieved from <https://www.nasdaq.com/symbol/aapl/financials?query=cash-flow>
- 12.Source: Macrotrends (2017), Financial Statement of Apple, Inc. Retrieved from <https://www.macrotrends.net/stocks/charts/AAPL/apple/balance-sheet>  
Date to access: July 14<sup>th</sup>, 2018

13. The original data source: Macrotrends (2017), Financial Statement of Apple, Inc. Retrieved from <https://www.macrotrends.net/stocks/charts/AAPL/apple/balance-sheet>
14. Source: Macro Trends, (2017), <https://www.macrotrends.net/stocks/charts/AAPL/apple/balance-sheet>. Access on July 14<sup>th</sup>, 2018
15. Source: Nasdaq(2017), "Financial Ratio of Apple, Inc"  
<https://www.nasdaq.com/symbol/aapl/financials?query=ratios>
16. Data Source: Source: Nasdaq(2017), "Financial Ratio of Apple, Inc"  
<https://www.nasdaq.com/symbol/aapl/financials?query=ratios>
17. Nasdaq(2017), "Balance sheet of Apple, Inc"  
<https://www.nasdaq.com/symbol/aapl/financials?query=balance-sheet>
18. **Source: WSJ(2017)**, <https://quotes.wsj.com/AAPL/financials/annual/balance-sheet> **accessed on July 14<sup>th</sup>, 2018**  
WSJ(2017), <https://quotes.wsj.com/FI/NOKIA/financials/annual/balance-sheet> accessed on July 14<sup>th</sup>, 2018.
19. **WSJ(2017)**, <https://quotes.wsj.com/AAPL/financials/annual/balance-sheet> **accessed on July 14<sup>th</sup>, 2018**  
WSJ(2017), <https://quotes.wsj.com/FI/NOKIA/financials/annual/balance-sheet> accessed on July 14<sup>th</sup>, 2018.
20. **WSJ(2017)**, <https://quotes.wsj.com/AAPL/financials/annual/balance-sheet> **accessed on July 14<sup>th</sup>, 2018**  
WSJ(2017), <https://quotes.wsj.com/FI/NOKIA/financials/annual/balance-sheet> accessed on July 14<sup>th</sup>, 2018.
21. Samsung, Inc(2017)  
<https://www.samsung.com/global/ir/financial-information/audited-financial-statements/>  
Accessed on July 14<sup>th</sup>, 2018
22. Data Source: Samsung Inc(2017), <https://www.samsung.com/global/ir/financial-information/audited-financial-statements/>  
Nasdaq(2017), Cash Flow Statement,  
<https://www.nasdaq.com/symbol/aapl/financials?query=cash-flow>
23. Nasdaq(2017), Income Statement,  
<https://www.nasdaq.com/symbol/aapl/financials?query=income-statement>.  
Accessed on July 14<sup>th</sup>, 2018.
24. IDC Worldwide Quarterly Mobile Tracker,  
2017,(IDC(2017),<https://www.idc.com/getdoc.jsp?containerId=prUS42268917>).