



Apple Inc.

Project Report

BSAN 6010- Fundamentals of Business

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Table of Contents

- I. Executive Summary
 - a. Company's Mission, Vision and Strategy
 - b. Relation of Historic Trends and Overview of 2021 Forecast
- II. Company Profile
 - a. Company Description
- III. Industry and Markets
 - a. Trend Analysis
 - b. Critical Issues
 - c. Demand
- IV. Company's Supply Chain
 - a. Major Products and Services
 - b. Costs
- V. Competition and Company's Strategic Plan
 - a. Competitors
 - b. SWOT Analysis, 4Cs Analysis & PESTLE Analysis
 - c. Balanced Scorecard
 - d. Product and Services Lifecycle Position
- VI. Bibliography
- VII. Appendices

I. EXECUTIVE SUMMARY

a. Company's Mission, Vision, and Strategy

Apple's corporate mission is to bring the best user experience to its customers through its innovative hardware, software and services. A fundamental driver of its mission, vision and strategy is to empower the public by allowing access to high-quality products & services. Apple embodies a sense of duty which allows them to improve the lives of people by facilitating access to a simplified and user-friendly technology. This solidifies the company's vision to continue making great products and that isn't changing. Throughout the years Apple has been at the forefront of innovation and at developing new products. But in recent years, the company has been lacking behind in its in-house Research & Development. Hence an area of focus as a part of the grander strategy is to focus on the design and functionality of the products. Without the catalyst of innovation the company finds itself short to maintain being a market leader in innovation. Throughout the past few years we have noticed a sharp decrease in the volume of sales in their consumable electronics segment. For example, the sale of iPhones have consistently been on the decline as the newer versions are just a slight enhancement from the previous models. Hence, the incremental benefit of purchasing a new Apple product has reduced the consumer satisfaction as it once used to offer in its earlier stages. Addressing the issues of lack of innovation would allow Apple to not only provide newer offerings to its customers, but also enhance the overall consumer experience.

b. Relation of Historic Trends and Overview of 2021 Forecast

Apple has had significant growth over the last 15 years. In January 2007 their stock stood at \$3.07. As of October 2021 their stock is now valued at an all-time high of \$154.30. This represents an increase of roughly \$151.23 (4926.06%) over the past 15 years. To put this in context, an investment of \$1000 in \$AAPL stock in 2007 would be worth just over \$50000 today. With the introduction of the 1st generation iPhone on June 29th, 2007, Apple stole the show as a company that prides itself on innovation and "thinking different". They continued to improve on their iPhone product so they revolutionized the smartphone market and put pressure on mobile phone manufacturers to compete with their high-quality products. This improvement lasted until the iPhone 11 (released September 2019) where the company unveiled mundane updates to the iPhone and to its iOS software. Economists and Market Analysts started flagging Apple as a company that is struggling with innovation. The Revenue from their products segment as a whole has been on a decline because of

very slow growth in developing markets (Asia, Africa) and loss of traction from upgrades in their developed markets (North America, Europe, Oceania).

We modeled our forecasts for 2021 accounting for this historical trend data and predicted that Apple's Revenue from the iPhone will drop from \$137.7b (in 2020) to \$133.5b (in 2021). This represents a decrease of 3.04%. Apple's Revenue from Mac and iPad are predicted to also grow although at lower rates than previous years. Apple's services segment which is relatively new is showing strides in growth. All of their services have been launched within the past 6 years. We forecast their services segment to grow by 21.7% in 2021 which is a pattern that has been consistent with the past couple of years. More on key assumptions and projections will be explained in the Trend Analysis section of this report.

II. COMPANY PROFILE

a. Company Description

Apple is one of the world's largest multinational technology companies founded in the year 1976 in Cupertino, CA. Some of the company's prominent co-founders include Ronald Wayne, Steve Wozniak and Steve Jobs. The company primarily focuses on Consumer Electronics, Computer Software and Online Services. It is also one of five Big Technology Companies including Google, Amazon, Microsoft and Facebook. Besides, Apple is the fourth largest personal computer vendor by unit sales. As of January 2021, Apple also enjoys the title of being the Most Valuable Company worldwide.

III. INDUSTRY AND MARKETS

a. Trends Analysis

Apple is classified under the Technology/Information Technology industry. The technology industry is one of the largest industries in the global economy. It is also the fastest growing industry with the world becoming more and more interconnected through Technology. According to industry experts there are 5 booming trends within Information Technology. These include cloud computing, mobile application development, big data analytics, automation and Artificial Intelligence.

Another unprecedented factor that has affected almost every aspect of the Information Technology industry is the global COVID-19 pandemic. The effects of COVID-19 has left companies everywhere

reeling as they try to mitigate the impact of the disruptions to production, supply chains and other aspects of the operation. As we head into 2022 there is a little precedent for the future as many companies are still bouncing back from the hit they sustained in 2020. The economy is showing some signs of stability but continued challenges (new variants and increased inflation) still pose a huge threat to the industry.

b. Critical Issues

The domain of technology is going through a major tectonic shift and with the on-going fourth industrial revolution, innovation and product development has seen a tremendous boom in the recent timeline. Barriers to entry in the domain of consumable electronic goods have significantly dropped allowing several new players to come in and contest against the top players like Apple. This has resulted in a sharp drop in Apple's market share in their overall product segment. Some of the main contenders include Samsung, Microsoft and Dell across their smartphones, tables and personal computing devices. Over the recent years of market trend analysis, it is projected that the services segment of our global economy is said to increasingly grow and the market is gravitating more towards enhancing the consumer experience & customer delight.

c. Demand

Over the course of the past few years the product segment has seen a significant decline in the volume of sales. For example, This can be further explained by looking at the sharp decline in the sales of iPhones and Tablets. It increasingly kept losing out on the market share due to a sharp drop in the barriers to entry. Other players like Samsung gained a stronger hold on the smartphone market due to a wide range of products and competing with Apple on the pricing. As a result, Samsung stands strong as the largest market share holder in the global economy. In addition there has also been a trend in the overall rise in the services segment of the global economy. People are seeking more experience based purchases which constitutes a whole services aspect to the whole overall value addition to the products being sold. Hence the core aspect of the growing economy is increasingly being contributed by the services segment. Therefore, Apple has recently been focusing on growing more into services and diluting their dependence on their revenue from products.

With the help of globalization and digitization, the world is getting more and more interconnected. This has led to the rise of e-commerce and an overall increase in the market size. The world is no

longer bound by physical boundaries. “global e-commerce sales will reach \$4.2 trillion this year, with U.S. consumers accounting for close to one-quarter of that spending.” (Verdon, 2021). Hence, Apple has the obligation on its shoulders to tap into the newer developing markets where the consumer trends have picked up in recent years. Some of the prominent markets where the consumer spending power has significantly increased includes India, Singapore, Bangladesh, Sri Lanka, etc. Therefore, Apple must have it as a priority to focus on the emerging markets and capitalize the market share at this early stage of growth inception.

IV. COMPANY'S SUPPLY CHAIN

a. Major products/service

Apple currently has most of its revenue contributed through the products segment. Almost 80% of the entire revenue share comes from products and the rest 20% is contributed via services. The major products that Apple has on its catalogue still includes the Macintosh, iPhones, iPad and Apple Watches. Although they have been aggressively expanding into services and have a wider range of selection for the end users. Some of it includes AppleTV, Apple Music, Apple Wallet, Apple Card and Apple Arcade. They range all the way from the Financial Services domain to Entertainment.

b. Costs

Apple's working costs line-items reported on their Income Statement are as follows: Cost of Revenue from Products, Cost of Revenue from Services, Research & Development, Selling, General & Administrative expenses as well as Provision for Income Taxes.

The following provides a detailed breakdown of their costs for 2021;

1) **Operating Expenses:** Operating Expenses have increased from \$194.6b in 2018 to \$250.9b in 2021, driven by (a) an increasing rate of inflation (2021 a record high 5.4% inflation) (b) \$8.9b Increase In Cost Of Sales (c) \$24.7b Increase In R&D Spending, and (d) \$22.7b Increase In SG&A Expenses.

(a) Inflation is expected to be at 5.4% in 2021 as a result of the COVID-19 pandemic. This is the highest rate of inflation in the past 10 years (year-on-year average being 2.29%).

(b) Cost of Sales has increased from \$163.7b in 2018 to \$172.6b in 2021, driven by higher costs of memory and other proprietary components. However, as a percentage of Revenues, Cost of

Sales has decreased from 61.6% to 57.8% over the same period. This shows that Apple has managed to generate more revenue mainly from its Wearables & Services segments as well as projected price hikes for their products to counter inflation.

(c) R&D Expenses increased from \$14.2b in 2018 to about \$38.9 billion in 2021 as Apple is likely to be investing in more long-term 'in-house' projects as part of their expanding Services segment. As a percentage of Revenue, R&D expenses have grown from 5.35% in 2018 to 13.01% in 2021. This has mainly been attributed to their long-term in-house R&D and inflation.

(d) SG&A Expenses have increased from \$16.7B in 2018 to \$39.4b in 2019. As a percentage of Revenues, SG&A has increased from 6.3% in 2018 to 13.2% in 2021. This has mainly been attributed to after-effects of COVID-19 on business operations and inflation.

2) **Non-operating income:** We did not account for any non-operating income in our Income Statement ProForma since this is largely controlled internally by the company and decisions surrounding those line-items are decided by the Board.

3) **Income Tax Expense:** Apple's Provision for Income Taxes has declined from \$13.3b in 2018 to about \$7b in 2021 (a tax rate of about 14.6%), driven by the U.S. Federal Income Tax Reforms signed by President Donald Trump under the Tax Cuts and Jobs Act of 2017. It remains to be seen how the new administration will tax large corporations. We expect to see an increase in the tax rate to at least 18% for Apple from 2021 onwards.

V. COMPETITION AND COMPANY'S STRATEGIC PLAN

a. Cross-sectional analysis of Competitors

Upon conducting a thorough cross sectional analysis of the market competitors across the products and the services segment. We have identified some of the key competitors that give Apple a tough fight for their money. Some of them are even ahead in terms of acquiring a larger customer base. In the products domain we have Samsung that challenges Apple on the electronic consumable goods such as smartphones, tablets and wearables like smartwatches. Besides Apple also faces a tough competition in the personal computing devices domain via Microsoft and Dell. The other domain where Apple is relatively new but increasingly growing its customer base is in the services segment. Apple new online streaming services which compete against various audio and motion picture

streaming platforms. The two prominent competing companies in that domain include Spotify and Netflix for streaming audio files and movies respectively.

Upon analyzing the company financials for 2021, we happen to derive certain insights based on the Key Performance Indicators. So the two main competitors used for comparing the company's financial health include Samsung and Microsoft. On comparing the KPIs for 2021, Microsoft had the highest Quick Ratio of 2.05 and whereas Apple had the lowest reading of 1.15 indicating that Apple has a lower ability than Microsoft to meet its short-term obligations with its available liquid assets. Although Apple has the lowest Quick Ratio, it is still not that alarming of an issue as the ratio is still above 1. Looking at the Times Interest Earned in 2021, we can say that Apple had the lowest output of 2.87 when compared to 24.51 and 8.23 of Samsung and Microsoft respectively. It means that Apple has the highest ability to meet its debt obligations in relation to its current income. Moving on to the Cash Conversion Cycle, it was noticed that Apple has the lowest CCC of -140.19, whereas Samsung had the highest CCC of 372. The negative number for Apple indicates that Apple can very quickly convert investments in the inventory to cash. This is due to having great payment terms with their suppliers. With regards to the Net Profit % it can be observed that Microsoft has the highest net profit % of revenue of 36.45% followed by Apple at 13.67% and Samsung at 19.92%. Hence Apple would have to pay closer attention to the Net Profit % of Revenue as the value significantly dropped from 2020 to 2021. Looking at the Fixed-Assets to Long Term Ratio it can be stated that Apple had the lowest Debt Ratio of 0.86, followed by 1.45 and 6.46 of Apple and Samsung respectively. Thus, Apple is in a good position with an ability to pay off their long term liabilities. Lastly, look at the Gross Profit we can state that Apple had the highest recorded Gross Profit of \$126 Billions. On the contrary Microsoft recorded \$115.86 Billions and Samsung recorded a total of \$26.5 Billions

Samsung's KPIs:

Samsung's KPI	2020	2021
Quick Ratio	2.2	1.98
Times Interest Earned	25.13	24.51
Cash Conversion Cycle	-	372
Net Profit % of Revenue	8.83%	10.92%
Fixed Assets to Long Term Liabilities (Debt Ratio)	6.75	6.46
Gross Profit (In Millions of KRW, Korean Won)	₩ 20,518,484.00	₩ 23,888,518.00
Gross Profit (In Millions of USD)	\$22,798.30	\$26,542.80

Microsoft's KPIs:

Microsoft's KPIs	2020	2021
Quick Ratio	2.49	2.05
Times Interest Earned	7.06	8.23
Cash Conversion Cycle	-	44.62
Net Profit % of Revenue	30.96%	36.45%
Fixed Assets to Long-Term Liabilities Ratio	1.08	1.45
Gross Profit (in millions USD)	\$96,937.00	\$115,856.00

Apple Inc's KPIs:

Apple Inc's KPIs	2020	2021
Quick Ratio	1.33	1.15
Times Interest Earned	4.16	2.87
Cash Conversion Cycle	-147.08	-140.19
Net Profit % of Revenue	20.91%	13.67%
Fixed Assets to Long Term Liabilities (Debt Ratio)	0.79	0.86
Gross Profit (In millions USD)	\$104,956.00	\$126,198.95

b. SWOT Analysis

	Helpful	Harmful
Internal	Strengths	Weaknesses
	<ul style="list-style-type: none"> - Most Valuable Global Brand (\$612b valuation) - Global presence - Huge emphasis on Corporate Social Responsibility - Highly qualified and skilled employees 	<ul style="list-style-type: none"> - Highly Priced Products - Limited advertisement and promotion - Incompatibility with other software - Slowing down on innovation
External	Opportunities	Threats
	<ul style="list-style-type: none"> - Customer Acquisition - Expansive Distribution Network - Utilizing Artificial Intelligence and Machine Learning - Expansion into Services segment 	<ul style="list-style-type: none"> - COVID-19 outbreak - Increasing competition - Counterfeit products - Lawsuits and data privacy issues

c. 4Cs Analysis

Company	Competition	Category	Customers
<ul style="list-style-type: none"> - Mission (described above) - Vision (described above) 	Top 3 Competitors <ul style="list-style-type: none"> - Samsung - Microsoft - Dell 	<ul style="list-style-type: none"> - Personal Computing Products - Streaming services - Financial services 	<ul style="list-style-type: none"> - Demographics Male > Female Older People (35+) > Younger people (under 35) Higher income (\$75k+) > Lower income (under \$75k)

d. PESTLE Analysis

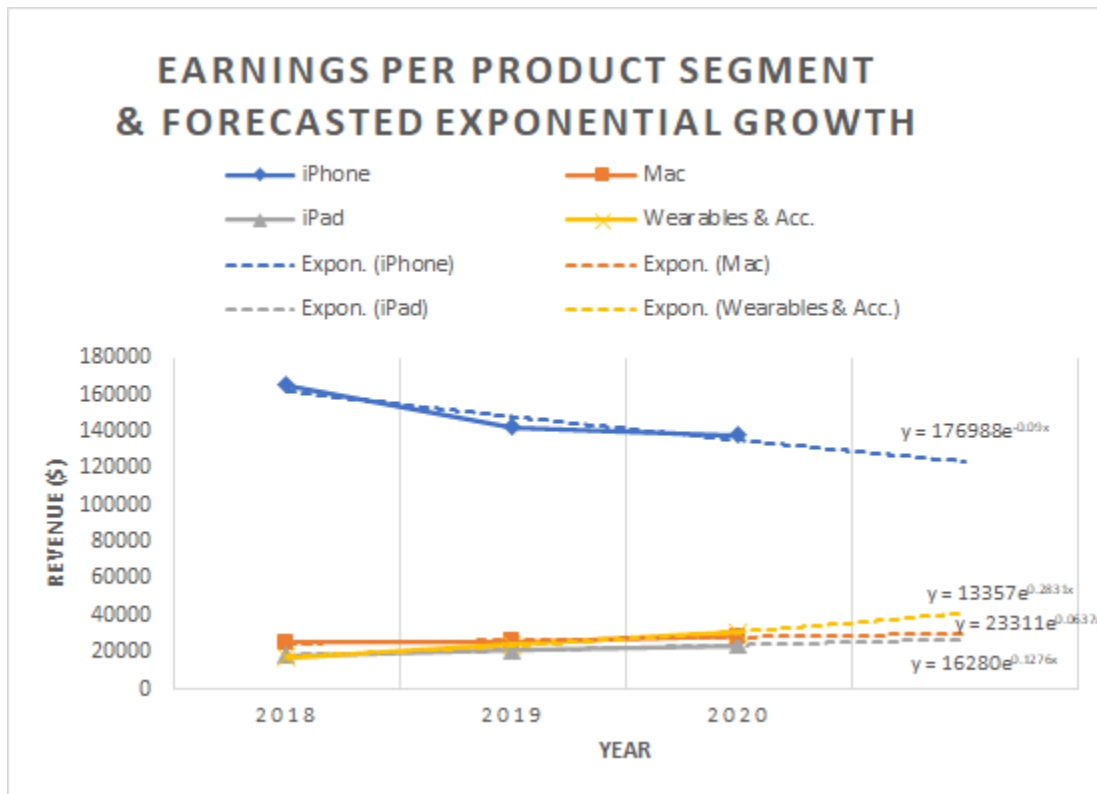
Key: O = Opportunity; T = Threat

Political	Economic	Social
<ol style="list-style-type: none"> 1) High tension between US-China trade relations (T) 2) Stabilized politics in developed countries (O) 3) Improving free trade policies 	<ol style="list-style-type: none"> 1) Stable Economies of development countries (O) 2) Rapid growth of developing countries (O) 3) Increasing disposable incomes (O) 	<ol style="list-style-type: none"> 1) Increasing dependence on digital system - interconnectedness (O) 2) Increasing social justice awareness (O/T) 3) Rising use of mobile access (O)
Technological	Legal	Environmental
<ol style="list-style-type: none"> 1) Growing cloud computing demand (O) 2) Growing technological capabilities of competitors (T) 3) Increasing technological integration in business (O) 	<ol style="list-style-type: none"> 1) Increasing Data Privacy Regulations (O/T) 2) Increasing Data sharing/access regulations (O/T) 3) Legal challenges against Apple's policies (T) 	<ol style="list-style-type: none"> 1) Increasing concerns around climate change (O/T) 2) Business sustainability through return programs (O)

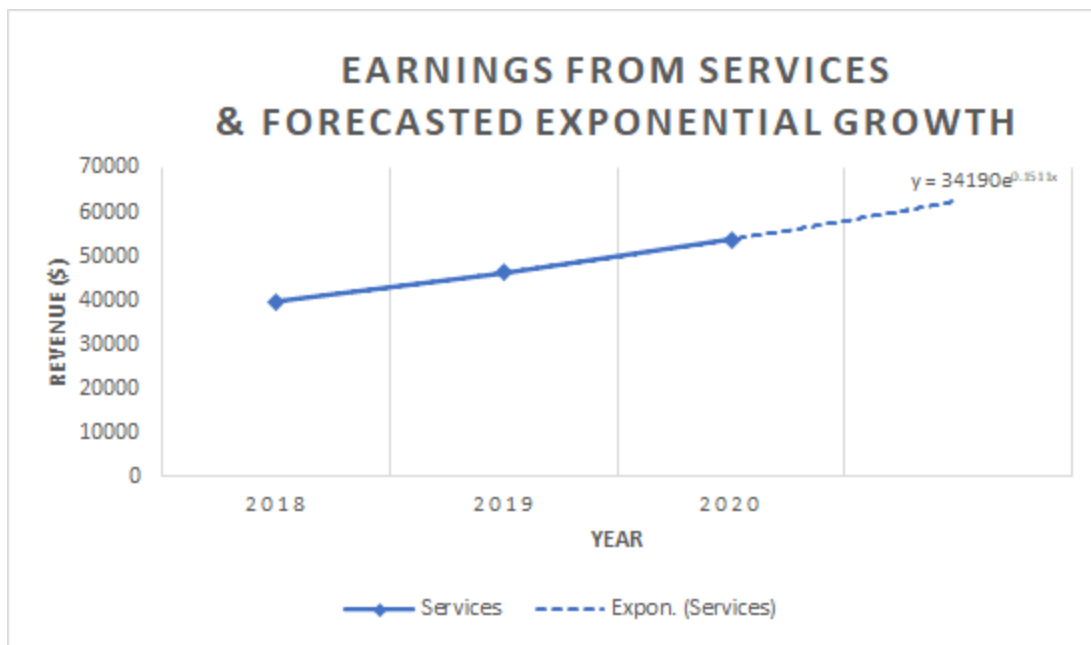
Balanced Scorecard

Please refer to Appendix 2 for the Balanced Scorecard. We have separated our Balanced Scorecard according to the following categories: Financial, Supply Chain & Logistics, Internal Processes and Customer Relations. We have identified Apple's strategic objectives, Key Performance Indicators and their Target Metrics.

Product and Services Life Cycle Position



The graph above shows Apple's Earnings Per Product Segment as well as the forecasted Revenue for 2021. The projected values for 2021 are included in our Income Statement ProForma (appendix 1). We decided to model the Revenue by Year as an Exponential function using the formulae labeled on the graph. An exponential growth function is a better representation for using the growth rate compared to a linear growth function. From the graph above we can see that Revenue from the iPhone has been decreasing and the same trend is expected for 2021. This suggests that the iPhone is slowly losing traction with its customer and has peaked in its product maturity. On the other hand, the fastest growing products for Apple are the Wearables and Home Accessories segment. The iPad and Mac continue to have a growth rate slightly greater than 0. This means that these products are also growing but not as fast as the Wearables and Home Accessories segment. Therefore, the conclusion in terms of product life cycle is that Apple needs some innovation in order to see positive growth from their products segment.



The graph above shows Apple’s Earnings from Services segment as well as the forecasted Revenue for 2021. The projected values for 2021 are included in our Income Statement ProForma (appendix 1). We used a similar approach in computing the projections for 2021 (exponential growth function). Although not clearly visible above as an exponential growth function we have included the growth rate formula in the label. From the graph we can see that Apple has had tremendous success in their services segment. They have ramped up in all spheres of the services industry including video streaming services (AppleTV+), music streaming services (AppleMusic), gaming services (AppleArcade) as well as financial services (AppleCard, AppleWallet & ApplePay). Their services life cycle is still in its growth-to-maturity stage and this a very promising sign in terms of Revenue from Services.

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VII. Appendices

1. [Apple ProForma Statements for 2021](#)
2. [Apple Balanced Scorecard](#)