

Financial statement analysis and revenue forecast for Apple Inc.

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Abstract. Nowadays, technology companies play an indispensable role in transforming people's lifestyles and the productivity of the whole society. It is of great significance to focus on the ability of continuous operation and sustainable development of those high-tech companies. This paper takes Apple Inc. as an example and presents a financial statement analysis that combines strategy analysis, accounting standard analysis, common-size analysis, and ratio analysis. The figures shown in this paper are based on Apple's past annual reports and relevant comparisons are made with Apple's competitors when necessary. All the analyses in this paper are conducive to revealing the financial condition of Apple Inc. and forecasting its future revenue. After conducting all the analyses, it is easy to find that profitability didn't witness dramatic progress in recent 3 years due to Covid-19. The paper, therefore, concludes that more efforts are needed to improve Apple's efficiency and liquidity, which eventually enables Apple to make wise investments and generate more revenue. Furthermore, although Covid-19 is largely to blame for Apple's plain performance in recent 3 years, more elements from the social environment and its competitors should also be carefully considered in order to make an exact forecast about Apple's future financial performance.

1 Introduction

Financial statement analysis has been a hot topic worldwide in recent years, and there has also been much profound research on revenue forecasts. This stream of research embodies great importance for both academics and practice. Generally speaking, the research of financial statement analysis focuses a lot on improving fundamental analysis with an aim to achieve profitability forecasts and firm value estimates of high quality.

According to previous researchers, it is vital to choose an appropriate model to make firm value estimates. In the beginning, the dividend discount model which emphasizes the cash distributed to shareholders was very popular for firm valuation [1]. However, in this model, much of the firm value generates from future periods and is not closely related to the existing financial statements. Over time, a new model named the discounted free cash flow model rose. In the second model, a firm creates value when cash is generated regardless of whether it has been

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distributed or not [2]. The free cash flow model resembles the dividend discount model to some extent, they both do not count on financial statement information. More recently, Ohlson came up with the residual income valuation model which has a deeper connection with the financial statements [3]. Generally speaking, these models laid a crucial foundation for forecasting revenue with a firm's financial statements. However, more empirical evidence is needed to guide such endeavors of revenue forecast.

In the US, Apple, Inc. enjoys enormous popularity among high-tech businesses. The continuous growth of such technology companies means a lot to the progress of the whole society. To assess Apple's financial condition, this paper investigates its industry strategies, accounting standards, common-size financial statements, and financial ratios. All the analyses lay a solid foundation for forecasting Apple's revenue in the following 5 years. It is known to many people that Covid-19 in 2020 has brought great shocks to the technology industry, even though the pandemic has now ended, analysts should still consider all kinds of challenges and opportunities resulting from the outside world when making financial forecasts. The traditional valuation models may lack further empirical evidence, thus focusing closely on the financial statements and considering the outside environment carefully may be more appropriate for Apple's revenue forecast. In making valuable revenue forecast, the most significant factor in determining why different revenue prediction accuracy exists is the forecast horizon [4]. This paper takes account of Apple's industry strategies, financial statements, future challenges and opportunities. By employing methods of trend analysis, comparative analysis and proportional analysis, this paper intends to

give a qualified revenue forecast and some useful suggestions for Apple Inc.

2 Strategy analysis of Apple Inc.

The great success of Apple Inc. is highly connected to its numerous strategies employed. By analyzing Apple's strategies, other high-tech companies can have a good understanding of where the excellent operating ability comes from.

2.1 Porter's five forces analysis

Porter's five forces model is often used to evaluate the profit potential of an industry, and there are five categories in total: threat of new entrants, bargaining power of customers, threat of substitutes and industry rivalry [5].

2.1.1 Threat of new entrants

For Apple Inc., there isn't much chance that a new competitor will endanger its existing position and market dominance. This can be explained from two aspects, one reason is that the cost to establish a new company is extremely high, and the other reason is that it also takes a lot to establish a great reputation for the brand.

2.1.2 Bargaining power of suppliers

On the one hand, since there exist a large number of suppliers, thus the negotiating power of suppliers is relatively weak. On the other, as a high-tech giant with abundant resources and connections, Apple has a very modest cost to switch between different suppliers. Generally speaking, the bargaining power of suppliers is quite weak.

2.1.3 Bargaining power of customers

Speaking of the bargaining power of customers, this force should be considered under different circumstances. To begin with, when Apple is faced by one single person, it is obvious that the individual negotiating power is limited. However, when a group of people gather together, customers' aggregate market leverage is tremendous. In order to prevent large-scale customer turn to a rival, Apple Inc. makes great investments in research and development to produce distinctive products.

2.1.4 Threat of substitutes

The products and services of Apple are renowned for their creativity and high quality. Despite the fact that there exist some potential alternatives, their features are fewer than Apple goods. So the threat of substitutes is very low for Apple.

2.1.5 Industry rivalry

There are many companies that are in direct competition with Apple. For instance, Google, Inc., Hewlett-Packard, Samsung Electronics Co., Ltd., and Amazon, Inc. Overall, the industry rivalry for Apple Inc. is pretty fierce.

2.2 Value chain analysis

Value chain analysis enables a company to determine how to generate value for its clients [6]. Hence, Apple can use value chain analysis to evaluate its competitive advantages.

2.2.1 Support activities

a) Infrastructure

Apple wants to build its own super-fast communications system. With the right steps, the company will reduce its dependency on competitors like Microsoft and Google.

b) Human Resource Management

Diversity is necessary for innovation, and Apple will keep working hard to hire exceptional people from underrepresented groups in the business. The formation of Apple University was another strategic decision made by the companies in this industry.

c) Technology Development

Apple made the sensible strategic decision to retain its team of technologists, designers, and strategists, enabling the company to focus on portfolio optimization closely and maintain innovation as a key to success.

d) Procurement

Apple now controls the whole supply chain, thanks to the development of a solid supplier network that has given the company a competitive advantage. The company demands detailed explanations of the costs associated with each component it acquires.

2.2.2 Primary activities

a) Inbound Logistics

Apple has a huge supply chain and many options for obtaining raw materials. Due to its considerable financial resources, Apple's negotiation power with its suppliers is significant.

b) Operations

Apple products are produced in several nations. What's more, Apple is employing more recyclable materials and using less toxic chemicals in the manufacturing and assembly process of its products.

c) Outbound Logistics

Apple products are available online as well as through big-box retailers and their retail locations. The company's goods are produced in several nations and then shipped to Apple Stores, cell phone retailers, and customers worldwide.

d) Marketing and Sales

Apple is redefining corporate marketing in its industry. The company is setting up an internal marketing agency that, if fully operational, will engage a thousand specialists to regain its creative edge. As a result, Apple has maintained a high level of income in recent years.

e) Service

At each stage of the purchasing process—pre-purchase,

purchase, and post-purchase—Apple offers exceptional customer service. In major locations throughout the world, Apple maintains experience centers where anyone may test out its products and be convinced of their superiority.

2.3 SWOT analysis

SWOT analysis means the analysis of a company's strengths, weaknesses, opportunities and threats [7]. Just as shown in table 1, Apple Inc. now faces a lot of strengths, weakness, opportunities and threats. It is obvious that Apple should make more efforts to make use of its strengths and opportunities to improve its operating situation.

Table 1. SWOT analysis of Apple Inc.

STRENGTHS	WEAKNESSES
Brand Value Innovation Ecosystem User loyalty	High Priced Products Limited Advertisement & Promotions Allegations of Tracking Unfair Business Practices
OPPORTUNITIES	THREATS
Consistent Customer Growth Qualified Professionals Expansive Distribution Network Utilize Artificial intelligence	Apple Bullied By Counterfeits Increasing Competition Market Penetration Backdoor Mechanism

3 Accounting standard analysis of Apple Inc.

3.1 Revenue recognition

Revenue recognition is a very important part of a company's practices. A five-step revenue recognition model that emphasizes the "transfer of control" rather than the "transfer of risks and rewards" is introduced by IFRS 15 [8]. If there are multiple different performance obligations, each one's fair value must be determined.

According to Apple's annual report in the year 2021 and 2022, such practice is especially needed for Apple Inc. since there exist some product-related bundled services (iCloud, Siri, and Maps). Apple Inc. follows this five-step revenue recognition model in recent years.

3.2 Goodwill

In Apple's annual report in the year 2021 and 2022, there is no concrete evidence that the company's acquisition by Apple resulted in goodwill impairment or loss. Hence,

goodwill may not be a significant factor to be considered when forecasting Apple’s revenue in the future.

4 Common-size analysis and ratio analysis of Apple Inc.

4.1 Common-size analysis

The common-size financial statements are very helpful for time-series and cross-sectional analysis [9]. In a common-size balance sheet, each balance sheet item should be divided by total assets. While in a common-size income statement, every income statement item needs to be divided by total revenue. All the information needed to form common-size financial statements can be acquired

from Apple’s past annual reports.

4.1.1 Common-size balance sheet analysis

As is shown in Table 2, the percentage of current assets has been decreasing from 2020 to 2022. While the percentage of non-current assets has been increasing in recent 3 years. It is evident that Apple made more investments in long-term assets instead of short-term assets. It is also clear that the percentage of current liabilities has been improving from 2020 to 2022. Such a growing trend can be explained by Apple’s pre-sales strategy and other hunger marketing methods to attract customers.

Table 2. Abstract from Apple Inc.’s common-size balance sheet.

	2020	2021	2022
Current assets	44.37%	38.41%	38.38%
Non-current assets	55.63%	61.59%	61.62%
Current liabilities	32.54%	35.75%	43.65%
Non-current liabilities	47.29%	46.28%	41.98%

4.1.2 Common-size income statement analysis

As is presented in Table 3, the percentage of both

operating profit and profit before tax has been increasing in recent 3 years. However, the growth rate slowed down due to the Covid-19 pandemic.

Table 3. Abstract from Apple Inc.’s common-size income statement.

	2020	2021	2022
Operating profit	24.15%	29.78%	30.29%
Profit before tax	23.05%	29.05%	29.56%
Net profit after tax	19.53%	25.08%	24.67%

4.2 Ratio analysis

Financial statements offer quantitative data regarding a company's operations across a fiscal period.

By comparing line-item data from a company's financial records, ratio analysis reveals insights into

profitability, liquidity, operational efficiency, and solvency [10]. This paper mainly focuses on profitability ratios and liquidity ratios. All the ratios in this part are calculated according to Apple Inc.’s financial statements in recent annual reports.

4.2.1 Profitability ratios

A group of financial measurements known as profitability ratios are used to evaluate a company's capacity for profit. It is obvious in Table 4 that the percentage of gross profit has been growing from 2020 to 2022. However, the net

profit ratio of the recent two years is around 25% and no significant progress can be spotted. Furthermore, the recent three fiscal years have witnessed tremendous improvement in return on equity. Such improvement indicates that Apple is highly likely to have a stronger ability to generate returns for ordinary shareholders now.

Table 4. Profitability ratios of Apple Inc.

	2020	2021	2022
Gross profit ratio	38.23%	41.78%	43.31%
Net profit ratio	20.91%	25.88%	25.31%
Return on equity	87.87%	150.07%	191.96%

4.2.2 Liquidity ratios

In order to assess a company's capacity to settle its short-term debt commitments, financial ratios named liquidity ratios are utilized. It is clearly shown in Table 5 that all these three ratios are in a declining condition in the recent 3 years. Generally speaking, a current ratio should be

around 2 and a quick ratio should be around 1. If a current ratio is too low, it could be a negative signal. What's more, a low quick ratio can derive from a high level of inventory, more liabilities incurred or a decrease in sales revenue. In addition, a low cash ratio is also a reminder to prevent the capital chain rupture.

Table 5. Liquidity ratios of Apple Inc.

	2020	2021	2022
Current ratio	1.36	1.07	0.88
Quick ratio	1.22	0.91	0.71
Cash ratio	0.86	0.5	0.31

5 Revenue forecast

Understanding the company's revenue drivers and patterns is essential when projecting a company's revenue [11]. For Apple Inc., it is clearly stated in its past annual reports that the company's revenue can be calculated by different categories of products and services. All the

categories can be seen as different revenue drivers. As presented in Table 6, the growth rates of each revenue driver in the recent 3 years are listed. Also, the average change is the average number of the previous two growth rates. All the information below is acquired from Apple Inc.'s past annual reports.

Table 6. Apple Inc.'s sales revenue by category in past 3 years.

	2020	Change	2021	Change	2022	Average Change
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iPhone	137,781	39%	191,973	7%	205,489	23%
Mac	28,622	23%	35,190	14%	40,177	19%
iPad	23,724	34%	31,862	-8%	29,292	13%
Wearables, Home and Accessories	30,620	25%	38,367	7%	41,241	16%
Services	53,768	27%	68,425	14%	78,129	21%

I suppose that the average changes in Table 6 remain as the growth rates in the following years, and the final

revenue forecast for Apple Inc. is shown in Table 7 below.

Table 7. Revenue forecast of Apple Inc. in the next 5 years.

	2023	2024	2025	2026	2027
iPhone	25,134	311,827	384,128	473,193	582,908
Mac	47,634	56,474	66,956	79,382	94,115
iPad	33,135	37,481	42,398	47,960	54,252
Wearables, Home and Accessories	48,003	55,873	65,034	75,697	88,107
Services	94,318	113,861	137,454	165,936	200,320
Total revenue	476,223	575,517	695,970	842,168	1,019,702

6 Conclusion

After all kinds of analysis, it is reliable to conclude that Apple Inc. is good at employing various strategies to help with operations. However, there still remains much space for improvement of financial ratios. In order to improve profitability, more technology innovations and marketing strategies are needed to promote sales revenue. Also, reducing inventory stock and managing debt structure reasonably are conducive to better liquidity. Apart from profitability and liquidity, efficiency and solvency are also two significant aspects to consider when assessing financial performance. Apple Inc. is one of the high-tech companies, and there is no denying that our future will be largely influenced by advanced technologies. By analyzing Apple's strengths and weaknesses, other technology companies can gain useful experiences to establish prosperous business empires. Confronted with both opportunities and challenges, all technology

companies should learn to adopt proactive strategies to address issues in the future.

References

1. H. Stephen, Penman, *Rev Acc Studies*, (1998)
2. L.P. Jennergren, *European J Oper Res* **185**, 3 (2008)
3. J.A. Ohlson, *Cont Acc Rese* **11**, 2 (1995)
4. Tanja, et al., *Rev Quantitative Fin Acc* **51**, 2 (2018)
5. J.C.N. Lord, *Health Care Manag Review* **46**, 3 (2021)
6. A. K. Zokaei, D. W. Simons, *Inter J Logist Manag* **17**, 2 (2022)
7. F.U. Zishan, H. Jiatong, *Psy Res* **13**, 3 (2023)
8. H.K. Envelope, L.S. Envelope, *J Int Acc, Aud Tax*, (2022)
9. V. Garg, S. Ranjan, S. Srivastav, *Asian J Manag* **8**, 4 (2017)

10. W. Li, Modern Eco & Manag Forum **3**, 2 (2022)
11. W. Xiaohan, W. Meitao, Public Fina Res J, (2016)