

A Financial Analysis of Apple based on its External and Internal Environment

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Abstract. Since its inception, Apple Inc. has been in the first rank of market size competition for many years, and it has launched various businesses and services with a large customer base, and its financial health and unique competitive advantages have also made its competitors and market researchers interested in it. Therefore, Apple's market competitiveness and financial status were studied by collecting data from the company's public information and related literature, and analyzing the data with the Porter's Five Forces model and ratio analysis. The study found that Apple is financially healthier with some risk of overvaluation. Apple's competitiveness lies in its commitment to creating its own ecosystem, increasing the emotional value of its products, and increasing the position of services in its main business. Apple is subject to international influences and technological updates, and can improve its competitiveness in the future by continuing stock incentives, increasing the emotional value of its products, and improving the accuracy of its market forecasts.

Keywords: Apple, External Competition, Internal Operation, Competitive Advantages.

1. Introduction

In 1979, Steve Jobs founded Apple; in 1980, Apple went public and all 4.6 million shares were snapped up. 2011, Tim Cuddy became the new chief executive officer of Apple. Apple managed to beat Google Inc. in terms of brand, becoming the world's No. 1 in 2014. 2022, January 4, Apple's share price reached \$182.88, and its market capitalization for the first time stood at three trillion dollars, which is not only Apple's powerful strength to become the world's first 3 trillion market capitalization, but also equivalent to the GDP volume of the world's fifth largest economy, after the United States, China, Japan and Germany. Apple offers products including iPhone, Mac, iPad, wearables, home and accessories, wearables including smartwatches and wireless headphones, Home, accessories.

These products have high technological content, many innovative points and wide coverage, fully meeting the needs of customers' intelligent life. Of these major products, iPhone is the company's line of smartphones based on the iOS operating system. Mac is the company's line of personal computers based on its macOS operating system. iPad is the company's line of multifunctional tablets based on the iPadOS operating system. Home includes Apple TV, the company's media streaming and gaming device based on its tvOS operating system, as well as HomePod and HomePod mini wireless smart speakers.

Apple provides services including advertising, AppleCare, cloud services, digital content, and payment services. Among other things, AppleCare provides priority access to Apple's technical support, offers repair and replacement services from Apple's authorized service network worldwide, and, in many cases, provides additional coverage for accidental damage or theft and loss, depending on the country and product type. Digital Content includes the company's operation of various platforms, including the App Store, which allows customers to discover and download applications and digital content such as books, music, videos, games and podcasts.

The consumer, small and medium-sized business, education, enterprise and government markets are Apple's primary customers. The company sells or distributes its products directly to most of its customers through directly operated stores, offline retail stores, online stores, and dealerships that are predominantly located in tier 3 and tier 4 cities. The company also employs indirect distribution

channels such as third-party cellular network operators, wholesalers, retailers, and resellers, among others. In 2023, the company's net sales through direct and indirect distribution channels accounted for 37% and 63% of total net sales, respectively [1].

In conclusion, Apple Inc. has a longer history, a broad business scope, and an important market position, which deserves a detailed study and analysis. Therefore, Apple's industry competition, financial situation, competitiveness and risks are further discussed below.

2. Evaluating the External Environment of Apply

2.1. Competition from Rival Sellers

Apple's competitors are Huawei in China and Xiaomi in Africa and Asia-Pacific markets. Huawei has excellent technology, such as Hongpai system, baseband and so on. Huawei's Hongpai system is China's first international mobile terminal system and Internet of Things operating system, which can be applied not only to smartphones, but also to smart watches, tablets, bracelets, smart cars, smart rice cookers, smart home appliances, etc., and it is the world's top three cell phone systems alongside Android and iOS. Baseband is the channel and bridge for cell phone chips and smart networks to interact, Huawei is currently the world's top 5G baseband development company, while Apple has acquired Intel for baseband development and research, temporarily unable to shake Huawei's leading position (see Figure 1). In the high-end market, it has been seen that some Apple users have shifted to the Huawei brand, and the challenge to Apple can also be observed from the third quarter data that Apple's flagship share has declined. However, it was also mentioned that Huawei will not easily shake Apple's market position in the short to medium term [2]. Huawei's market share has been severely limited due to the chip issue caused by the US-China relationship.

Developed regions have a high demand for high-end machines, while emerging markets such as Africa and Asia-Pacific markets have a high and growing demand for low-end machines. In the Indian market, Xiaomi occupies the leading position; the Asia-Pacific market is the third market share, the African market is the first and the fastest growing. In these mainly low-end regional markets, Apple's market share is far behind other cell phones such as millet. At the same time, much of Xiaomi's market share increase has come from capturing market share vacated by Huawei due to chip restrictions [3].

Apple still has a high competitive advantage in the smartphone market (see Figure 2). Apple's smartphone market share of 43% is ahead of other handset manufacturers, indicating that Apple's worldwide smartphone market share in terms of revenue reached an all-time high in the quarter ending September [4]. Apple's ability to compete successfully in the marketplace is reflected in its ability to continuously innovate and introduce new products, services and technologies to the marketplace in a timely manner. The company designs and develops virtually the entire solution for its products, including hardware, operating systems, a wide range of software applications and related services. Key competitive factors that are important to the company include price, product and service features (including security features), relative price and performance, product and business quality and reliability, design innovation, a strong ecosystem of third-party software and accessories, marketing and distribution capabilities, service and support, and corporate reputation [1].

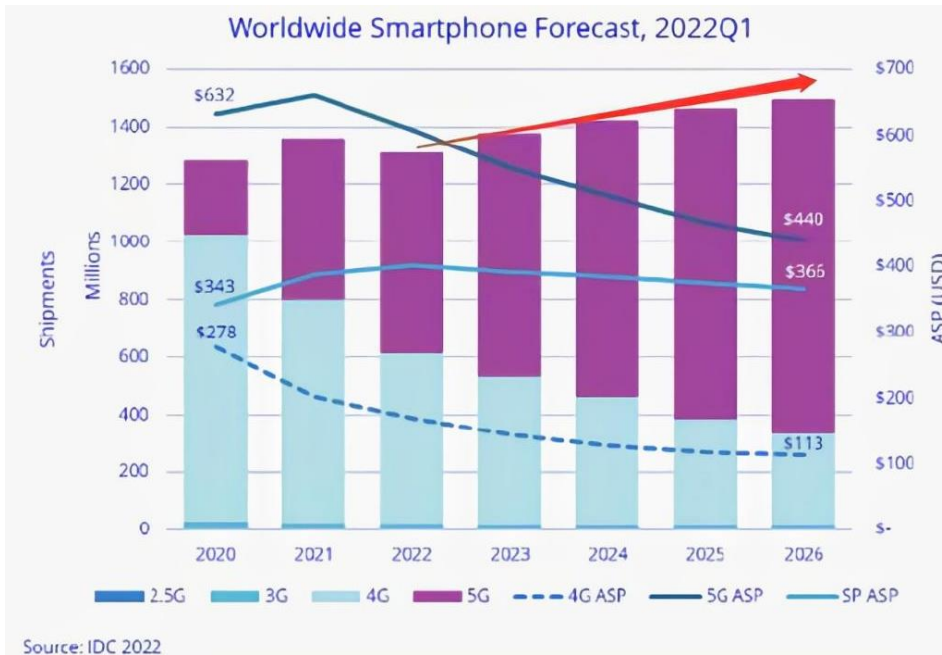


Fig. 1 Worldwide Smartphone Forecast, 2022Q1

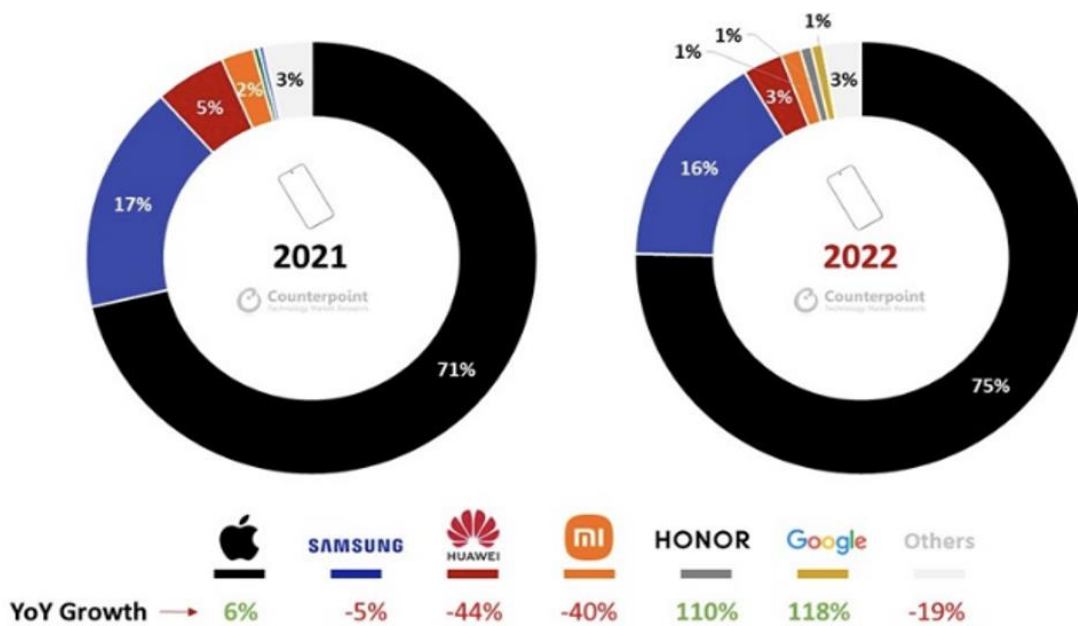


Fig. 2 The sales growth rate of different smartphone companies

2.2. Competition from Potential New Entrants to the Industry

As the smartphone market has a very high technological content and customer loyalty due to brand effect, the entry barrier is very high compared to other industries, and the number of potential entrants is relatively small. At the same time, as much of the smartphone market share has been occupied by existing enterprises, they rely on strong capital and existing researchers and other scientific and technological resources to further compete for each other's market share, and it is more difficult for new entrants to increase their market share. But it cannot rule out brands such as Glory, which joined the smartphone market in the last three years and has a relatively impressive sales volume. However, compared with Apple, its market share cannot pose a greater threat to it in the long term.

2.3. Competition from Producers of Substitute Products

The emergence of smartphones represented by Apple phones has led to a breakthrough decline in demand for Nokia and other key cell phones, and the original cell phone market pattern has suffered

a thorough reshuffle, with emerging smartphone companies re-dividing the market. At present, as daily life becomes more and more intelligent, smartphones have become a necessity of life, and there is no product that can replace smartphones for the time being. If, with the progress of science and technology, another technological change occurs, which may make the smartphone completely replaced, which requires Apple to always carry out scientific and technological innovation.

2.4. Supplier Bargaining Power

Upstream suppliers to the smartphone industry include displays, cameras, batteries, chips, cases, and PCBs (circuit control boards), with screens accounting for approximately 40% of the total. To be sure, as a global company, there are multiple sources of supply for raw materials that are critical to the company's business, but there are still very few raw materials that come from a single source. Also, because of the existence of Apple's supply and the existence of multiple competing companies competing on price for smartphones, computers, tablets, headphones, and other products, including products supplied from multiple sources, there may also be fluctuations in cost prices. However, Apple's bargaining power at a single supplier is extremely high due to the fact that most components are usually available from multiple sources. At the same time, Apple's demand for smartphones and other products ranks first or among the top in the relevant global market, and it has a high demand for parts, making it a large customer among suppliers. Apple has signed many long-term contracts, which provides a good guarantee for future upstream supply price stability.

2.5. Customer Bargaining Power

Most of Apple's customers are located in the middle and high-end income level, the United States, China, Europe and other regions. In China, Apple is based on physical channels, with a clear hierarchy, directly-managed stores in first- and second-tier cities, while third- and fourth-tier cities are dominated by distributor agents [5]. Apple has always been through the people-oriented ideas, in product development to achieve the performance of the combination to bring customers the highest experience, at the same time in the appearance of the design and other aspects of the customer feel pleasing to the eye. Apple is committed to creating a link between the product and the user - the user experience, and this permeates the company's culture, thus creating a brand marketing model with a strong impact [6]. For the middle and high-end income groups, in addition to affordability and quality, emotional support has become an important decision-making factor. At the same time, Apple is committed to building its own ecosystem, constantly screening customers, increasing their purchase of an Apple product after the purchase of other products supporting the purchase, improve customer loyalty at the same time increase the customer transfer threshold.

However, the cell phone penetration rate in emerging markets is still low, mainly because of the lagging construction of communication networks and relatively low per capita income. From the data published by IDC (see Figure 3), the smartphone penetration rates in Africa (40% penetration), India (70% penetration) and Asia-Pacific (80% penetration) are still low.

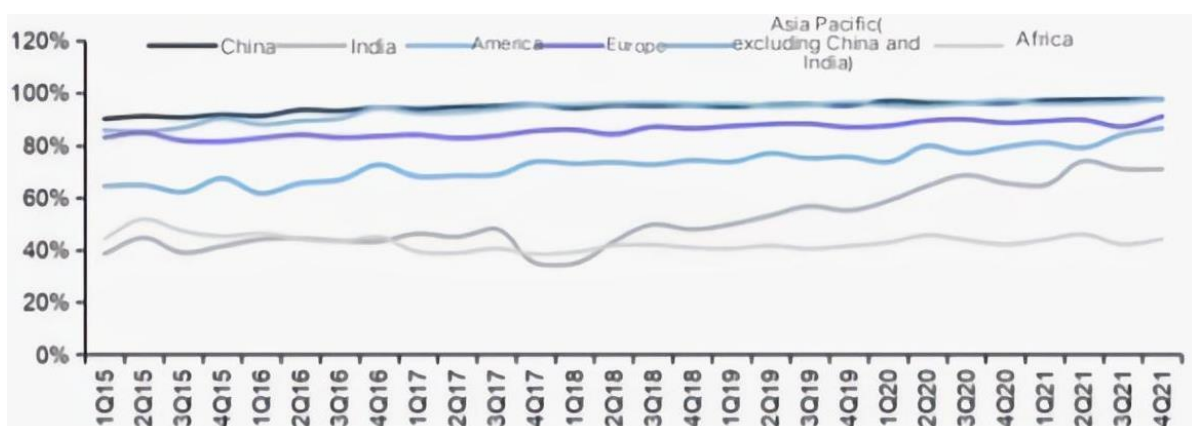


Fig. 3 Emerging market smartphone penetration rate

3. Evaluating the Internal Environment of Apply

3.1. Apple’s Financial Strength and Profitability Performance

Apple's price-to-earnings (TTM) ratio is 30.68 as of November 23, 2023, with a 30th percentile value of 25.86 and a 70th percentile value of 28.93 over the last three years. Apple's price-to-earnings ratio is ranked 11th among U.S. stocks in its industry. Apple is equivalent to most companies with higher P/E ratios and carries some risk of being overvalued.

Apple's 22/23FY net attributable profit was \$96.995 billion, in the same industry, Huawei's net profit was RMB 35.6 billion and Xiaomi's was RMB 2.474 billion, and Apple is located in the first place in the industry with a huge gap. In the analysis of profit margins in the past five years, Apple realized a high growth rate of net attributable profit in 20/21FY, an increase of 64.92% year-on-year, followed by a slowdown in the growth rate of net profit in the following two years, and the first time it was negative in 22/23FY, at -2.81%.

In 2020, the global outbreak of the COVID-19 pandemic, in the global economic downturn, Apple, on the contrary, to obtain high growth. Apple launched a new iPhone. it was an updated version of the iPhone SE, which was declared discontinued in 2018, and was launched to great acclaim, with positive second-quarter financial results. In the same year, Apple CEO Tim Cook released an open letter in response to the death of George Floyd on May 25, which gained the approval of the masses engaged in racial egalitarianism. Apple launched Apple One, a bundled subscription service.

In 2023, the company had total net sales of \$383.3 billion and net income of \$97 billion (see Figure 4). Compared to 2022, the company's total net sales for 2023 decreased by 3%, or \$11 billion. Weaker performance in other currencies compared to the U.S. dollar was the primary reason for the year-over-year decline in total net sales, principally due to lower net sales of Macs and iPhones, partially offset by higher net sales of services. Fluctuations in net sales similarly affect profit determination [1]. With the current weaker growth in Apple's margins, improving innovation and launching products with high customer acclaim is key in order for the financial performance in 2023 to also be as impressive as it has been in the past.

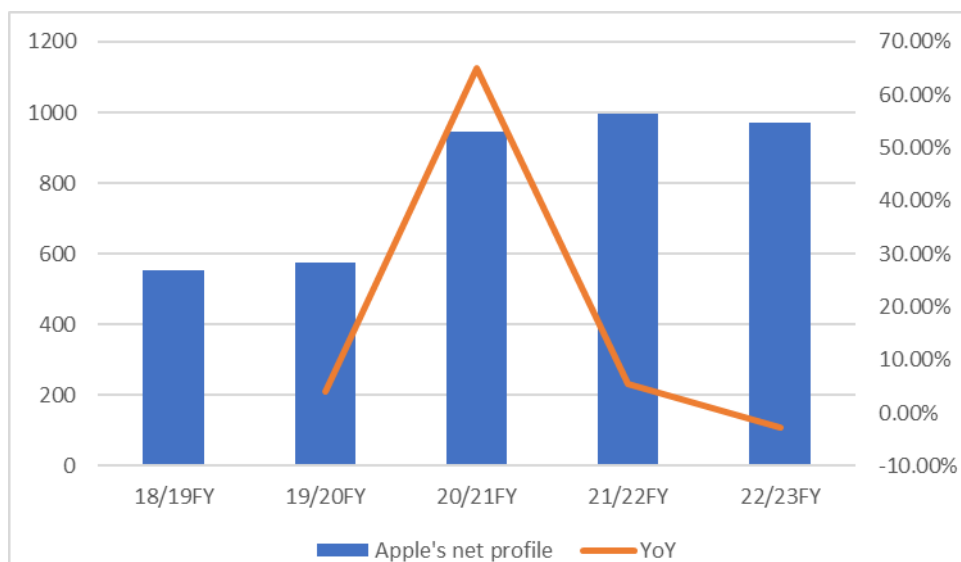


Fig. 4 Apple’s Net profit Growth from 2018 to 2023

Apple Inc. has a current ratio of 0.94 for the first quarter of 2023, an increase from 0.88 in 2022, and a quick ratio of 0.77 for the first quarter of 2023, again an improvement from 0.71 in 2022 (see Figure 5). As the quick ratio is relatively more valuable when used for products with low inventory realization rates, this paper mostly uses the current ratio for analysis. Apple's overall debt service capacity is not high, but compared to the average value of 0.5 of listed companies in the same industry is more impressive, while the recent trend of improvement. Since Apple is a high-tech company, it is normal to have a higher current ratio compared to other industries. Currently, the average current

ratio of most successful companies began to decline, which also shows that such companies have a low capital retention rate, which is a sign of healthy business operations.

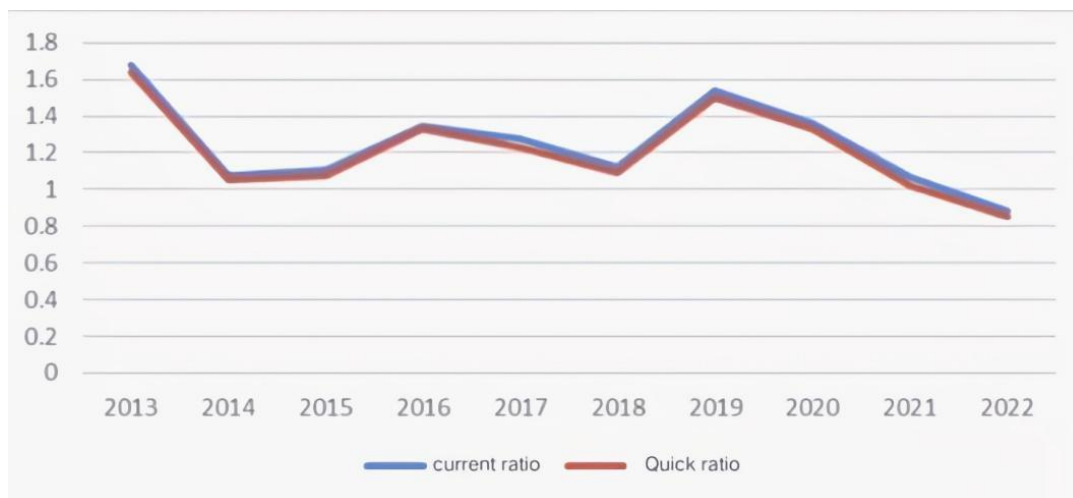


Fig. 5 The liquidity ratios of Apple from 2013 to 2022

In 2023, Apple financially unveiled a new generation of iPhones and 4k TVs; Apple Vision Pro™, the company's first space computer featuring the new visionOS™, which is expected to be available in early 2024; and iOS 17, macOS Sonoma, iPadOS 17, tvOS 17, and watchOS 10, updating the company's operating systems.

Apple's net sales declined in Europe, China, and Japan due to foreign currency exchange rates. Profit and gross margins for all business lines of services increased relative to the decline in profit and gross margins for products such as iPhone, iPad, and Mac. Apple's focus on product development has increased research expenses in each of the last three years, with growth rates ranging from 6% in 2021 to 9% in 2023. The lower effective tax rate on foreign income, the impact of the U.S. federal R&D credit, and the tax benefit of share-based compensation, partially offset by state income taxes, have resulted in a lower effective tax rate than the statutory federal income tax rate in 2023 and 2022. Notably, as of September 30 2023, the Company had \$106.6 billion aggregate principal amount of outstanding fixed rate notes of various maturities (collectively, the "Notes"), of which \$9.9 billion is payable within this year. Future interest payments related to the Notes total \$41.1 billion, of which \$2.9 billion will be paid within 12 months. The Company also issues unsecured short-term promissory notes under its commercial paper program . As of September 30, 2023, the Company had \$6 billion in outstanding commercial paper all of which is payable within 12 months [1]. At the same time, Apple is actively realizing the equity incentive strategy, Cook through equity incentives can eliminate the conflict of interest between small and medium-sized shareholders and corporate executives, promote the enthusiasm of executives, make the company's profitability growth, enhance the value of the company, and then enhance the market value [7].

3.2. Competitive Strength and Market Standing

Apple has built a strong and robust ecosystem that today Apple is a world leader in innovation across a number of familiar products including the iPhone, iPad, Mac, Apple Watch and Apple TV. Apple's five software platforms - iOS, iPadOS, macOS, watchOS and tvOS - provide a seamless experience across all Apple devices and deliver groundbreaking services to people, including the App Store, Apple Music, Apple Pay, and iCloud.

In the September quarter, Apple's business performance drove double-digit earnings per share growth, returning nearly \$25 billion to shareholders while continuing to invest in the company's long-term growth plans. Apple will pay a cash dividend of \$0.24 per share on November 16, 2023 to shareholders.

Apple is committed to building a high-end brand. The Apple brand represents not only high-quality technology and design, but also a lifestyle and values. Apple brand enjoys a high reputation and

loyalty among consumers. According to statistics, Apple brand loyalty reaches 89%, which is an important guarantee for Apple to maintain its market advantage. Not only does it give consumers a strong sense of trust in Apple's products, it also gives them a sense of emotional identity. This emotional identity is also the key to Apple's ability to maintain a stable market share in the high-end market [8].

4. Risk Management

Apple is an international company and may be affected by the policies of various countries around the world. All of the company's manufacturing is performed in whole or in part by outsourcing partners located primarily in China, India, Japan, South Korea, Taiwan, and Vietnam, where changes in local industrial support and policies such as tariffs can have a significant impact on the supply chain and cost of Apple's products. At the same time geographical wars, strikes, terrorism, political relations between other countries and the United States and other issues can affect Apple's sales and supply. For example, the relationship between the U.S. and China, China is a populous country and is an important production and customer location for apples, if the relationship between the U.S. and China deteriorates further and the Chinese side takes more stringent measures, coupled with the cultural awareness of the local population, it will have a negative impact on apples. Apple revenues are affected by the downturn in the world economy. In the event of natural disasters such as earthquakes, tsunamis and mudslides, the transportation of Apple's production components may be interrupted, resulting in unexpected losses. Although Apple has purchased relevant insurance, the loss will still be difficult to make up after receiving compensation from the insurance company. Fluctuations in the exchange rate of the U.S. dollar can cause production costs and product prices to rise or fall outside of the country, which can affect the number of sales and thus cause Apple's profits to fluctuate.

Almost all of Apple's production is outsourced, and most of the suppliers are from developing countries outside the U.S. It is difficult to better manage the quality of the suppliers, and if the suppliers have substandard products, it may affect the consumers' evaluation of Apple and their trust, resulting in the loss of customers. In case of work-related injuries, employees need to be compensated for their expenses. The company's products have the characteristics of short cycle, quick replacement, high technology content, etc. In order to stimulate the customer demand, the company must constantly carry out research and development and product performance optimization, and has a large amount of capital investment in research and development, in which the failure of research and development will result in a large amount of expenses. At the same time, if the grasp of consumer demand is wrong, the new product did not get a good sales volume, which will further cause losses. Apple did not analyze the market well enough. For example, Apple overestimated the preference for the iPhone8 and iPhoneX, which led to under-selling of these products as well as the buildup of inventories due to the overproduction of these products. Therefore, Apple needs to continuously improve the accuracy of its market forecasts in the future, introduce relevant analytical talents and conduct high-precision market research activities [9]. If Apple's production and R&D cause environmental pollution, it will be fined or even stopped by the government, resulting in unexpected losses and affecting the company's reputation among its partners and customers. In addition, Apple's huge €13 billion tax evasion case, which has resulted in the largest fine in history, may be retried. A retrial could cause further damage to Apple and its assets and reputation [10].

5. Conclusion

Apple has a large share of the industry and a high position; Apple has 75% of the smartphone market share in 2022, with second place Samsung at only 16%, and Apple's share continues to grow. Apple has material suppliers around the world and is resilient to risk, and it is primarily located in the Asia-Pacific region with a relatively large and cheap labor force. Apple is committed to building a

premium brand, focusing on value proposition and building its own ecosystem. As a result, Apple's customers generally have high spending power and are highly loyal.

Apple is in a better financial position, with profit growth shifting from products to services; Apple's P/E ratio is high, with some risk of overvaluation. Net interest rate continues to grow, growth rate after 2020 surge trend down. Debt service capacity is relatively low, recently improved, due to the high technological content of the enterprise current ratio is low as a normal phenomenon. Apple's net profit and gross margin both decreased compared to 2022 on products such as iPhones, Macs, iPads, wearables, home and accessories, but increased on services. Apple is gradually increasing the position it stands in services.

Apple is highly influenced by international factors and relies on innovation for its products. Apple is a global company with suppliers and customers in different parts of the world. Due to the impact of exchange rate, sales revenue in Europe, China and Japan have declined. Apple is located in the high-tech industry, the product and equipment replacement speed is fast, the innovation and customer demand to grasp the high requirements, in the R & D investment, and R & D results are directly related to the purchase of products.

As a publicly traded company, Apple can continue its stock incentive strategy to protect investor rights and make both employees and in Hong Kong more willing to get the job done and create value. Apple needs to continue to continue its commodity value to be customer oriented in the future, as Apple's products satisfy the emotional needs of many customers, attracting middle and high end income customers to buy and return. This same point is Apple's unique competitiveness and plays a huge role in the competition in the smartphone market. Apple Inc. needs to continuously improve the accuracy of its market forecasts. From the above analysis, it can be concluded that the growth of Apple's profitability is greatly associated with the introduction of new products that are popular with customers, and the prediction of customer preferences and needs is especially important in product development. At the same time, in the production of products, the prediction of market demand also affects the company's profit.

References

- [1] Apple. (2023). Investor Relations. <https://investor.apple.com/investor-relations/default.aspx>
- [2] Chen, J. (2023). Cell phone market may accelerate recovery android "counterattack" apple market? China Business News, C02.
- [3] M&A Yushu. (2022). Smartphone Industry Chain Tracking: Xiaomi Group vs Transfar Holdings, High-end? <https://xueqiu.com/1095662550/217353428>
- [4] Counterpoint Technology Market Research. (2023). Technology Market Research & Industry Analysis Firm. <https://www.counterpointresearch.com/>
- [5] Jin, C. (2023). The impact of service quality on customer loyalty in retail enterprises under omni-channel background. Beijing Foreign Studies University.
- [6] Wu, S., Zhou, J., & Yang, Y. (2019). Corporate Innovation Behavior Based on Customers' Psychological Needs under the Perspective of Generalized Virtual Economy—Taking Apple as an Example. *Research on Generalized Virtual Economy*, 10(01), 41-45.
- [7] Wang, S. (2020). Research on Apple's market capitalization management. Chongqing University.
- [8] Sicroscope. (n.d.). Watch Apple's cell phone market share is 75%. Why does it endure? <https://baijiahao.baidu.com/>
- [9] Zhang, B. (2019). Research on Business Model Innovation Based on Customer Value Proposition—Taking Apple as an Example. *Knowledge Economy*, (06), 88+90.
- [10] Beijing Business News. (2023). Apple's "sky-rocketing tax evasion case" makes waves again, (8).