

# *Financial Analysis of Apple's Product Pricing Strategy*

Yinglin Wang<sup>1,a,\*</sup>

<sup>1</sup>*Department of Economic and Management, Tianjin University of Science and Technology, Tianjin, China*

*a. y.wang.148@student.scu.edu.au*

*\*corresponding author*

**Abstract:** Due to the rise of other domestic mobile phone brands, iPhone updates have slowed down and become less attractive to consumers, resulting in excess iPhone inventory. In response to this situation, in early 2024, Apple began to implement a price reduction strategy, and the price of Apple's iPhone dropped significantly. Given this phenomenon, this paper studies the financial status of Apple in the past three years, including profitability, operating ability and debt-paying ability, and puts forward the problems of Apple's declining cash flow ability in recent years, weakening short-term debt-paying ability, and unsalable inventory products. However, gross profit margin increased slightly and net profit margin on sales was also little changed. Finally, the paper analyzes the reasons for the sharp price reduction of the iPhone and puts forward some suggestions for Apple's future development, such as strengthening product innovation, promoting old products, and reducing the backlog of old products.

**Keywords:** Price setting strategy, Sales strategy, iPhone, Market competition

## 1. Introduction

Huawei's re-emergence in the Chinese mainland and local competition will pose a challenge to Apple's continued growth as demand for high-end replacement devices levels off in other major markets such as North America and Europe. Apple's global share of the high-end smartphone market has declined in recent years. Because Samsung and Huawei began to eat into Apple's market share with folding phones and brand revival, respectively. In addition, the rise of domestic brands in the domestic market has also posed a big challenge to Apple, such as OPPO and Xiaomi. On top of that, Apple's pace of innovation seems to have slowed down, with some users expecting less of its new products and switching to other brands. Apple's promotion in major consumer markets around the world may have been a choice made against the backdrop of poor sales of the new iPhone. Under multiple pressures such as the high-end efforts of local Chinese brands represented by Huawei, Apple needs to lay the foundation for new phone sales in 2024 by exchanging price for volume as soon as possible.

Waning et al. used procurement transactions from the WHO and Global Fight against AIDS databases to estimate the impact of a global strategy to reduce ARV prices and concluded that large procurement volumes do not necessarily lead to lower ARV prices. This author thinks to explore alternative strategies to reduce prices [1]. Popkova et al. used the methods of regression and correlation analysis, causal analysis and problem system analysis to analyze the impact of global oil

price level on the innovation activities of Russian petroleum companies, and finally verified the innovation composition of the influence strategy of Russian petroleum companies under the situation of falling oil price [2]. Mills et al. used a simple basic model to estimate changes in natural gas prices, wind power installations and other factors to analyze the impact on wholesale prices in the Midwest and mid-ocean regions of the United States. They concluded that the growth of wind and solar energy and the decline of natural gas prices were the main factors driving down wholesale electricity prices in the United States [3]. Herttua et al. used the time series intervention analysis model to analyze the impact of alcohol price reduction on alcohol-related mortality and concluded that alcohol-related mortality increased significantly in the elderly group after alcohol price reduction. There is a downward trend in all age groups. However, these adverse effects are counterbalanced to some extent by the beneficial effects of older age when CVD deaths are prevalent [4].

Based on the emergence of new retail methods based on analytics, Bello has studied discount optimization as one of the most important levers for fashion and luxury companies to create value. For example, Zara's Markdown optimization algorithm based on regression models increased sales revenue by about 6% during the pilot period. Based on a gradient-boosting machine learning algorithm, the author achieved a 14.4% increase in profit margin for end-of-season promotions in Norway [5]. Loh et al., by formulating a reasonable supply-side pricing strategy and a complete framework of price reduction optimization with price elasticity, built a price reduction system with excellent ability to optimize retailers' price reduction at different stages and solved the problem of low profitability efficiency caused by promotional activities [6]. By analyzing the concavity condition of the objective function and the existence of the global optimum point of the model, the author studied the price reduction policy for perishable products because they are easy to deteriorate and found the optimal discount amount and initial order amount, to maximize the total profit [7]. Chen et al. developed a multi-objective price reduction system and used simulation and optimization techniques to determine the best price reduction, which was eventually widely used in Walmart in the United States and formulated a price adjustment policy for each store to increase sales by 21% and reduce costs by 7%. Walmart can reduce operating costs as well as dynamic price reduction time Windows through a limited number of price adjustments [8].

Through price sensitivity analysis, the author studies the effects of price sensitivity of demand to price reduction rate, demand pattern during the decline phase, unit purchase cost, etc., on the optimal sales strategy and determines the optimal sales strategy according to the length of the seasonal interval and price reduction rate during the decline phase [9]. By establishing a game theory model of port competition between superior and inferior ports, the author studies the market mechanism of incentive strategy and price reduction strategy. The incentive strategy is the dominant strategy for the superior port in the regional port group to deal with the threat of price reduction by the inferior port [10].

This paper will study the motivation analysis of Apple's sharp price reduction, including industry competition and market share analysis. In addition, it also analyzes Apple's financial ability, including profitability analysis, operating ability analysis and solvency analysis. Finally, some reasonable suggestions for the future development of Apple are put forward.

## **2. Enterprise Motivation Analysis**

### **2.1. Industrial Competition**

Apple Inc. products have been synonymous with innovation, sleek design, and approachable user interfaces for millions of users. It ranked third on the Fortune 500 list of the largest U.S. companies by revenue in 2021, behind Walmart and Amazon. Still, the company has its fair share of competitors. Given that Apple operates in the desktop, laptop, and tablet markets as well as the smartphone market,

it faces competition from a growing number of peers and different sides. Especially Apple's most important product, the iPhone.

Huawei is also the biggest competitor to Apple's iPhone. Huawei has given Apple's iPhone a hard time in the global smartphone market. Huawei has launched "GPU Turbo" technology to boost the brand reputation of the Chinese tech giant. In addition, Apple is a game changer in terms of innovative technology and has strong brand loyalty and trust. The two brands, Huawei, and Apple, compete fiercely in the smartphone market.

Besides, Apple's iPhone sales in China have shown signs of slowing over the past few years. On the one hand, due to changes in the global economic situation, the purchasing power of consumers has been affected to some extent; On the other hand, the rapid development of domestic mobile phone brands has attracted a large number of users' attention. These brands have not only greatly improved their performance, but also started to align their design and user experience with international brands, which has put unprecedented competitive pressure on Apple. To boost sales, Apple has had to adopt a more aggressive marketing strategy. By lowering the price threshold, Apple hopes to attract consumers who have some iPhone preferences but are also price-sensitive.

## 2.2. Market

Apple's share peaked at 23% in the fourth quarter of 2015, when the iPhone 6 model accounted for the largest share of sales. But competition has since intensified, particularly from Chinese rivals. But Apple continues to dominate the profitable high-end smartphone market, commanding more than 60% of the price range above \$400. The overall market share does not represent the complete competitive landscape. In 2022, Apple has 16% of the global smartphone market, up slightly from 15% a year ago. But it is still well below the iPhone's peak share of 23% in 2015. While Apple continues to profitably dominate the \$400 + premium segment, fast-growing rivals like Xiaomi are chipping away at Apple's advantage with lower prices, especially in emerging markets. In the crucial Chinese market, Apple's share has fallen by half in the last five years. Huawei, Oppo, Vivo and Xiaomi have become national champions.

Despite major Chinese online platforms offering deep discounts on a variety of iPhone models, including a 16% price cut on the iPhone15 Pro and Pro Max on Pinduoduo, Apple has struggled to hold on to its market share in the face of domestic rivals. The rise of Chinese competitors, particularly Huawei, has been a key factor in Apple's struggles. They highlighted the impact of Huawei's successful return to the premium smartphone market with its Mate60 series, launched last August. It also underscores how Chinese companies are pushing back against the dominance of American companies in the Chinese market.

In addition, with the rise of domestic mobile phone brands, the market position of the iPhone has begun to waver. Market research shows that Apple's share of the Chinese market has declined, largely because of weak demand. To cope with this situation, Apple has adopted a promotional strategy of slashing prices to boost iPhone sales. To further enhance its market share, the iPhone needs to take an effective market competition strategy. First of all, Apple should strengthen cooperation with global carriers to expand the sales channels of the iPhone and improve product coverage. Secondly, Apple should focus on the differentiated competition of products and constantly introduce innovative products and services to meet the needs of different users. In addition, Apple should also strengthen brand marketing and promotion, enhance brand awareness and reputation, and enhance users' loyalty to the brand.

### 3. Financial Analysis

#### 3.1. Profitability

As shown in Table 1, the gross margin increases slightly from 2021 to 2023, the increase in gross profit margin means that Apple has lower production costs and higher added value of products. Generally speaking, products with higher added value contain higher and more advanced technology content and usually represent the market prospect with strong demand. The increase in gross profit margin often also drives the increase of net profit margin, which makes it possible for the enterprise to adjust its price strategy according to the current situation of competition.

Apple's net profit margin on sales has barely budged in nearly three years. despite a recent sharp price cut for the iPhone. Technological innovation, strong research and development strength are the key factors to keep the stable price. These inputs can not only help the enterprise develop more competitive new products and services but also bring higher added value and market recognition.

Table 1: Profitability analysis (Monetary unit: \$).

Item	2023/9/30	2022/9/24	2021/9/25
Sales	383,285	394,328	365,817
Cost of sales	214,137	223,546	212,981
Gross profit	169,148	170,782	152,836
Operating profit (EBIT)	114,301	119,437	108,949
Net income	96,995	99,803	94,680
Cash generated by operating activities	110,543	122,151	104,038
Return on equity	171.95%	175.46%	147.44%
Net asset cash recovery rate	31.34%	17.36%	15.42%
Rate of return on total assets	32.41%	33.94%	32.29%
Gross profit margin	44.13%	43.31%	41.78%
Net profit margin	25.31%	25.31%	25.88%

#### 3.2. Operating Capacity

As shown in Table 2, accounts receivable turnover decreased year by year, compared with 2021, accounts receivable turnover decreased by 3.97% in 2023. It shows that the company's accounts receivable collection speed is slow, the average collection period is long, the loss of bad debts is large, the asset flow is slow, and the solvency is weakened. The larger the accounts receivable turnover days are, the smaller the accounts receivable turnover rate is, indicating that the accounts receivable are collected slowly, the account age is longer, the asset liquidity is weak, the short-term solvency is weak, and the loss of bad debts is increased.

Table 2: Operating capacity analysis (Monetary unit:\$).

Item	2023/9/30	2022/9/24	2021/9/25
Accounts receivable	29,508	28,184	26,278
Inventories	6,331	4,946	6,580
Total asset turnover (times)	1.09	1.12	1.08
Total assets turnover days (days)	331.24	321.25	332.08
Turnover of current assets (times)	2.75	2.92	2.63
Turnover days of current assets (days)	131.01	123.36	137.06
Advance turnover of current assets (times)	1.54	1.65	1.53

Table 2: (continued).

Accounts receivable turnover (times)	13.29	14.48	17.26
Accounts receivable turnover days (days)	27.09	24.86	20.86
Inventory turnover rate (times)	37.98	38.79	40.03
Inventory turnover days (days)	9.48	9.28	8.99

Decline in inventory turnover, Apple's inventory turnover decreased by 2.05 from 40.03 in 2021 to 37.98. This indicates that the liquidity of enterprise inventory assets is weakened, and the turnover speed of inventory and the capital occupied by inventory are reduced. An increase of 0.49 days in inventory means that the inventory in the warehouse needs to be sold out and realized in a longer period, reducing the profit of the enterprise. These may indicate that Apple's inventory is outdated, the inventory products are unsalable, and the enterprise's capital turnover is also difficult. Therefore, Apple implements the strategy of lowering prices to reduce inventory and increase capital.

### 3.3. Repayment

As shown in Table 3, in 2022 and 2023, the current ratio is less than 1, indicating that the capital is slow to be reused, and the ability to be turned into cash to repay debts is low. There is a risk of capital chain rupture, and continuous additional investment is needed to maintain daily operations, and the ability to realize debt is reduced. Funds on hand are unable to repay emergency debts, and the capital chain is strained. It may also indicate that enterprises have a large inventory backlog, sales are blocked, and there is a risk of inventory price decline. This requires firms to increase revenues to increase the current ratio.

The cash ratio decreased, from 47.95% in 2021 to 36.62% in 2022, representing a decrease of approximately 11%. This indicates that the cash of Apple begins to be tight, or the current debt of the enterprise is too high, the ability to directly repay current debt is reduced, and the short-term solvency of the company is weakened. But, from 2022 to 2023, the cash ratio started to rise, rising by 5.66 percent. It also means Apple will have more ability to repay current debt as it comes due.

Table 3: Repayment analysis (Monetary unit:\$).

Item	2023/9/30	2022/9/24	2021/9/25
Current ratio (times)	0.99	0.88	1.07
Cash ratio	42.28%	36.62%	47.95%
Cash coverage ratio	73.87%	87.42%	90.13%
Asset-liability ratio	82.37%	85.64%	82.03%
Equity multiplier	5.67	6.96	5.56
Equity ratio	467.35%	596.15%	456.35%
Interest on the sales ratio	4.87%	4.96%	6.94%

## 4. Suggestions and Implications

Due to Apple's chronic lack of innovation, the speed of product updates is too slow, the products developed are not as attractive as before, and the speed of electronic product updates is accelerated. This leads to excessive inventory accumulation, lower inventory turnover, and longer inventory turnover days. To improve the inventory turnover, Apple should increase innovation, implement the price reduction strategy for old products, and reduce the inventory of old products as soon as possible. In addition, for unsalable products stored in the warehouse for a long time or damaged inventory,



timely cleaning. In addition, improving the ordering frequency is also the most important link to improve inventory turnover and the goal of warehouse management operations.

The main reason for the low accounts receivable turnover is that Apple's products no longer have a strong appeal to consumers and domestic electronic product brands are gradually rising, so consumers are reluctant to buy Apple brands. As a result, Apple's resellers were able to sell products more slowly, and their accounts receivable turned over longer days. Apple should strengthen product innovation, optimize inventory management, reasonably control inventory level, and avoid too many products stuck in inventory, to reduce the time and number of receivables.

The decrease in accounts receivable turnover will lead to the slowdown of cash recovery of the enterprise. The enterprise can improve the current ratio by increasing the holding of cash, accounts receivable, inventory, and other current assets. This requires Apple to strengthen the innovation of new products and lower the price of old products to collect the receivables faster, increase the cash flow ratio, or increase the inventory level to meet the market demand.

## 5. Conclusion

This paper finds that Apple, as a leader in the electronic product industry, ranks among the top three companies in the United States in terms of income. But iPhone sales in China have fallen. The main reason is the fierce competition in the domestic market and the rise of many Chinese domestic brands, such as Huawei and Xiaomi. So, Apple adopted the sales strategy of promotion and price reduction to attract more consumers. But the net profit margin on sales has barely changed in three years, thanks to Apple's strong research and development capabilities. The inventory turnover rate has decreased significantly, and the liquidity of the company's inventory has weakened. The liquidity ratio in 2022 and 2023 is less than 1, indicating that the short-term solvency of the enterprise has decreased. Apple should strengthen innovation in function, appearance, and performance to attract more consumers to buy and carry out promotional activities for old products. Thus, improves inventory turnover, promotes dealers to speed up sales, reduces inventory accumulation, and increase accounts receivable turnover. That would allow cash to flow back faster and improve Apple's ability to operate.

## References

- [1] Waning, B., Kaplan, W., King, A. C., Lawrence, D. A., Leufkens, H. G., & Fox, M. P. (2009). *Global strategies to reduce the price of antiretroviral medicines: evidence from transactional databases*. *Bulletin of the World Health Organization*, 87(7), 520-528.
- [2] Popkova, E. G., Pohuyufta, L., Beshanova, Y., Popova, L. V., & Kolesnikova, E. (2017). *Innovations as a basis for marketing strategies of Russian oil companies in the conditions of oil prices reduction*. In *Overcoming Uncertainty of Institutional Environment as a Tool of Global Crisis Management* (pp. 449-455). Springer International Publishing.
- [3] Mills, A., Wisser, R., Millstein, D., Carvallo, J. P., Gorman, W., Seel, J., & Jeong, S. (2021). *The impact of wind, solar, and other factors on the decline in wholesale power prices in the United States*. *Applied Energy*, 283, 116266.
- [4] Herttua, K., Mäkelä, P., & Martikainen, P. (2011). *An evaluation of the impact of a large reduction in alcohol prices on alcohol-related and all-cause mortality: time series analysis of a population-based natural experiment*. *International journal of epidemiology*, 40(2), 441-454.
- [5] Del BELLO, C. R. I. S. T. I. A. N. A. (2018). *Making markdown a competitive weapon: clearance sales pricing for a fast-fashion retailer*.
- [6] Loh, E., Khandelwal, J., Regan, B., & Little, D. A. (2022, August). *Prometheus: An end-to-end machine learning framework for optimizing markdown in online fashion e-commerce*. In *Proceedings of the 28th ACM SIGKDD Conference on Knowledge Discovery and Data Mining* (pp. 3447-3457).
- [7] Bahrami, F., Jeihouni, A., Ebrahimi Kordlar, A., & Safari, H. (2022). *Markdown pricing of perishable products with price and time-dependent demand, considering twice discount during the sales period—The case of Ofoq Kourosh Chain Stores*. *Research in Production and Operations Management*, 13(3), 25-46.

- [8] Chen, Y., Mehrotra, P., Samala, N. K. S., Ahmadi, K., Jivane, V., Pang, L., ... & Pleiman, S. (2021). *A Mult objective optimization for clearance in Walmart brick-and-mortar stores*. *INFORMS Journal on Applied Analytics*, 51(1), 76-89.
- [9] Wang, J. T., Zhang, S., Wu, C. H., Yu, J. J., Chen, C. B., & Tsai, S. B. (2021). *Time-sensitive markdown strategies for perishable products based on dynamic quality evaluation*. *Kybernetes*, 50(1), 165-180.
- [10] Lu, B., Fan, L., Wang, H., & Moon, I. (2024). *Price-cutting or incentive? Differentiated competition between regional asymmetric ports*. *Transport Policy*, 147, 215-231.