

Financial Analysis Report of Nintendo

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Abstract. This report selects Nintendo Co., Ltd. as the subject of analysis and analyses Nintendo in terms of the company's internal situation and external situation. In the internal situation analysis, this report mainly adopts the ratio analysis method to determine Nintendo's operating conditions through the company's financial data. Based on the calculation results, this report does not find any serious financial risks for Nintendo. In the external situation analysis, this report first analyzes the overall situation of the gaming industry using Porter's Five Forces analysis method and then analyzes the current situation of Nintendo using the SWOT analysis method. Finally, this report provides recommendations for Nintendo's future strategy development.

Keywords: Financial Analysis; Nintendo; Strategy.

1. Introduction

1.1. Company background

Nintendo, headquartered in Japan, is a very influential game platform manufacturer worldwide. At present, Nintendo's main business is to produce and sell home game consoles and game software, including the Nintendo Switch portable game console and more than 2 billion pieces of game software, which are very popular around the world, such as the famous Donkey Kong and Mario Racing. According to a survey of Nintendo's North American branch, about 40% of households in the United States own Nintendo's home game console.

1.2. Revenue recognition

According to the annual report data of Nintendo in 2022, as of March 2022, Nintendo's operating revenue exceeded 14 billion dollars, a decrease of 3.6% compared with the previous year. Among them, the revenue from overseas exceeded 11 billion dollars, accounting for 78.8% of the total revenue. For more in-depth analysis, this report subdivides Nintendo's revenue by product and geographical region, and the data are shown in the table 1.

Table 1. Nintendo's annual report (unit: millions of dollars)

	Japan	USA	Europe	Other	Total	Percentage
Video game platforms	2794	5854	3462	1435	13547	96.69%
Switch platform	2684	5742	3408	1408	13245	94.53%
Others	109	111	53	26	301	2.15%
Mobile and IP related income	156	227	39	18	440	3.14%
Other (cards, etc.)	14	8	-	0	22	0.16%
Total	2965	6089	3502	1453	14011	-
Percentage	21.16%	43.46%	24.99%	10.37%	-	-

According to the data in the table above, it can be found that in 2022, more than 90% of Nintendo's revenue come from the sale of switch game consoles and related game software, while the content revenue, royalty revenue, and traditional card game revenue from intelligent devices can be almost ignored, and are the same in all regions of the world. From the perspective of income geographical distribution, it can be found that the income from the United States accounts for almost half of Nintendo's total revenue, while Japan and Europe account for about 20% respectively, and the revenue from other regions is relatively low.

2. Internal situation analysis

2.1. Ratio analysis

Ratio analysis is one of the most important methods of financial analysis. Ratio analysis compares two relevant financial statement items that affect the financial position and calculates their ratio to analyze the financial performance of the company. According to different purposes of financial analysis, financial ratios are mainly divided into profitability ratio, solvency ratio, market prospect ratio, and turnover ability ratio. This report will obtain relevant data from Nintendo's annual report, calculate 1-2 of the four categories of financial ratios and analyze their results [1].

2.1.1 Profitability

(1) ROA (Return on Asset)

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Total Assets}} \times 100\% \quad (1)$$

Based on the financial statements of Nintendo, this report calculates the return on assets of Nintendo from 2020 to 2022 as follows: 13.37% (2395/17908); 19.63% (4367/22244); 17.94% (3948/22003). The results suggest that Nintendo has eased its profitability to a certain extent after weathering the most difficult period of the COVID-19 pandemic and stabilized its return on assets at around 18%.

(2) Net Profit Margin

$$\text{Net Profit Margin} = \frac{\text{Net profit}}{\text{Sales}} \times 100\% \quad (2)$$

For Nintendo, the net profit margins over the past three years are 19.77% (2395/12115); 27.31% (4367/15990); 28.18% (3948/14011). According to the results, it can be found that during the past three years, Nintendo's net profit margin has continued to rise. Specifically, from 2020 to 2021, Nintendo's net interest margin increased by nearly 8%. This is partly because Nintendo's sales have risen sharply, but also because Nintendo has made a conscious effort to control its costs and expenses in recent years, thus ensuring that its net profit margin has increased.

2.1.2 Solvency

(1) Current Ratio

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}} \quad (3)$$

Nintendo's current ratios from 2020 to 2022 are 4.22 (13903/3293); 3.84(18367/4784); 3.93(17572/4468). According to the results, it can be found that during the past three years, Nintendo's current ratio has remained at a stable level and kept above 2, which indicates that Nintendo does not have serious solvency risk for now.

(2) Quick Ratio

$$\text{Quick Ratio} = \frac{(\text{Current Assets} - \text{Inventory} - \text{Prepaid Expenses})}{\text{Current Liabilities}} \quad (4)$$

Nintendo's quick ratios from 2020 to 2022 are 3.97 (13079/3293); 3.67(17578/4784); 3.56(15885/4468). According to the results, it can be found that during the past three years, Nintendo's quick ratio has remained at a stable level and kept above 1, which indicates that Nintendo does not have serious solvency risk for now, and this result has consistent with the current ratio.

2.1.3 Efficiency

(1) Inventory Turnover

$$\text{Inventory Turnover} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}} \quad (5)$$

Nintendo's current ratios from 2020 to 2022 are 7.49 (6174/824); 9.08 (7167/789); 3.67 (6192/1687). According to the calculation results, it can be found that the turnover ratio of Nintendo's inventory in 2022 has decreased significantly, mainly because the inventory has increased significantly compared with the previous two years. This is mainly due to the large increase in finished products of the enterprise, which is likely to lead to poor subsequent sales. In response to this situation, managers should appropriately slow down the pace of production and promote sales.

(2) Account Receivable Turnover

$$\text{Account Receivable Turnover} = \frac{\text{Net Sales}}{\text{Average Receivable}} \quad (6)$$

The higher the turnover rate is, which indicates that the enterprise has few credit accounts, collects accounts quickly, has a short aging of accounts receivable, and has strong liquidity of assets. Nintendo's current ratios from 2020 to 2022 are 9.84 (12115/1231); 12.52 (15990/1277); 12.02 (14011/1166). According to the calculation results, it can be found that Nintendo's accounts receivable turnover has significantly increased in 2021 and remain at 12 in 2022. It is a good sign for Nintendo's efficiency. However, due to the situation that the company does not have solvency risk, for now, the managers of Nintendo could consider easing credit restrictions and extending repayment terms to increase sales.

2.1.4 Market Prospect Ratio

(1) EPS (earnings per share)

$$EPS = \frac{(\text{Net Income} - \text{Preferred Dividends})}{\text{Weighted Average Shares Outstanding}} \quad (7)$$

Nintendo's earnings per share from 2020 to 2022 are 20 dollars, 36 dollars, and 33 dollars respectively. Consistent with the previous ratio analysis results, in the past three years, 2021 is the best year for Nintendo to operate, so the company also paid the highest dividend to their shareholders in 2021.

(2) P/E Ratio

$$P/E \text{ Ratio} = \frac{\text{Share Price}}{EPS} \quad (8)$$

In general, the lower the P/E ratio of a stock, the lower the market price relative to the profitability of the stock, indicating a shorter payback period. For investors, the investment risk of the stock is less, otherwise, the conclusion is the opposite. Nintendo's P/E ratio from 2020 to 2022 is 2.41 (48.28/20); 1.97 (70.80/36); 1.91 (62.91/33) respectively. The results show that for the investor, investing in Nintendo's stock is becoming less risky during the past three years and the stock is underestimated.

Overall, the ratio analysis indicates that Nintendo's financial position has not been in serious trouble over the past three years, making it an option for potential investors. However, ratio analysis also has its limitations. For example, all indicators are calculated based on historical data and are not of great value in judging future trends. Also, this report does not compare other companies in the gaming industry, and an analysis based on industry averages will be more convincing.

3. External situation analysis

3.1. Characteristics of the video gaming industry

The gaming industry is a rapidly rising industry in recent years. In 2001, the world gaming market has already reached 50 billion dollars. During COVID-19, compared with other real consumer industries, the gaming industry saw opportunities instead. Among them, game software, rather than game consoles, brings profits to game manufacturers - it accounts for more than half of the revenue of the entire gaming industry. Therefore, when analyzing Nintendo's external environment, this report

will first use Porter's Five Forces Analysis method to analyze Nintendo's business environment, then use the SWOT Analysis method to analyze Nintendo's strengths and weaknesses in the industry.

3.2. Porter's Five Forces analysis

Firstly, different from other industries, such as retail, the entry threshold of the gaming industry is quite high. It is not easy for a new game company to invest a lot of technical and financial resources in the early stage of its operation to develop games that attract players enough to seize market share. Most new game companies are difficult to make profits after several years of operation, and some companies have even been losing money. Moreover, the entrants need to have sufficient resources to prepare, so only large companies can achieve this. The cost Microsoft paid to enter the game industry has become a classic example that latecomers want to consider entering this industry. At present, Sony, Microsoft, and Nintendo, the three giants in the game industry, have mastered most of the resources in the industry. These companies will have to pay much less when operating compared with the new companies. More importantly, due to years of operation, the classic games and brand values owned by the giant companies have enabled them to have a large number of loyal followers. In turn, this has become a huge challenge for new entrants who want to expand the market [2].

Secondly, in the gaming industry, suppliers of technology platforms usually have higher bargaining power. Take the processor as an example, in the past few years, Nintendo has always used the products supplied by Nvidia, while its competitors Microsoft and Sony have chosen AMD's products, and their quality is much higher than Nvidia's. However, with the upgrade of the game version and the improvement of players' requirements for picture quality and fluency, Nintendo is also faced with the choice of whether to upgrade its processor or change its supplier recently, which will greatly increase the cost of Nintendo's products.

Thirdly, Game players are in a relatively weak position in the industry. Even though players may be dissatisfied with the release price of the game, they can hardly play a decisive role in determining the final price. This is mainly because most game brands are successful in product differentiation, making it difficult for consumers to compare the price differences between different brands. Also, the prices of many games in different regions of the world are different, and consumers can buy games across regions, which is also a reason why players have weak bargaining power.

Fourth, the threat of substitutes is high. In the gaming industry, the appearance of fashionable games will easily replace the old products, such as "Pokémon GO", "Playerunknown's battlegrounds" and other games. Therefore, the proliferation of game studios in recent years and their constant release of new games poses a huge threat to traditional gaming giant companies.

Fifth, the competitiveness of existing competitors is relatively high. At present, Nintendo, Sony, and Microsoft occupy absolute monopoly positions in all aspects of the gaming industry. From the perspective of the market share of global game console hardware sales in 2021, Nintendo occupied 55% of the market share, while Sony and Microsoft occupied 31% and 18% respectively; In terms of overall operating revenue, Sony's revenue is the highest (2740 billion yen in 2022), while Nintendo and Microsoft's data in the same period are 1695 billion yen and 2364 billion yen respectively; In terms of profit margin, Nintendo's profit margin will reach 35% in 2022, which is much higher than Sony's data in the same period; In terms of the number of downloadable games, according to the records on the official website, the Nintendo platform currently has nearly 13000 games for players to download, while Sony's PS4 and PS5 have about 7000 games in total, and Microsoft's Xbox series products have about 6000 games in total. All these data can show that no other company has enough strength to compete with these three companies.

Through the analysis above, it can be found that to achieve greater success, competitors need to have a more effective cost control system and faster response to consumer demand; On the other hand, once the substitute has mastered the sales channel and been recognized by the players, game companies need to focus on designing differentiated products to meet consumer needs.

3.3. SWOT analysis

3.3.1 Internal environment of Nintendo

(1) Analysis of Nintendo's advantages

Competitive advantage refers to an enterprise's ability to outperform its competitors, which helps to achieve its main goal -- profit. Nintendo's strengths lie in the following ways [3]. Nintendo has developed a unique profit distribution system based on its nearly 50 years of experience in the game industry. At that time, the manager in charge of Nintendo drew lessons from the "collapse of Atari". First, he set up a "Mario Club" game quality supervision agency to strictly screen the game software on the Nintendo game console. Later, he set up a "royalty system" and formulated a set of rules for game review, platform access, and game revenue sharing, which brought huge profits to Nintendo. At the same time, it objectively promoted the benign development of the Japanese game industry at that time. These systems are also the internal reason why the overall quality of Nintendo Switch games is much better than its competitors. Super big IPs such as Super Mario and Legend of Zelda have always maintained a good reputation and remain popular among players. It is these unique systems that enable Nintendo to maintain a high-profit margin even in the context of economic depression [4].

(2) Analysis of Nintendo's disadvantages

First, Nintendo's failed family business management style. The presidents of Nintendo's Japanese and American divisions (NOA) often have differences due to huge differences in management methods, and the consequences of such differences are devastating because they will lead to key employees becoming vulnerable and even leaving to do other work. Therefore, the family business management model seriously leads to the failure of efficient cooperation between Nintendo's various branches, and will also seriously harm Nintendo's external reputation and damage Nintendo's overall interests [5].

Secondly, weak technology research and development capability. With the growing demand for personalized service, companies are required to provide increasingly specialized service strategies and differentiated solutions, for example, more and more game companies begin to focus on creating products with local characteristics based on the language and cultural background of different regions, which is also the basis for a game to be promoted around the world. In addition, the development of modern games also needs the support of technological innovation. For example, more and more VR, AR, and motion capture games are emerging in the market. It would be unthinkable for Nintendo to spend huge resources on a new generation of high-performance consoles to compete with SONY. Conversely, it is in the area of research and development that Nintendo's other rival, Microsoft, has the greatest advantage.

3.3.2 External environment of Nintendo

(1) Opportunity for Nintendo

In terms of technology and business environment, Nintendo has much more experience than its competitors with the background of years of exploration in the gaming industry. Even though Microsoft recently acquired the game giant Blizzard, it intends to expand its market share in the game industry. However, Microsoft did not intervene in Blizzard's daily operation, which was also due to its limited experience in the game industry. These factors can also reduce Nintendo's competitive pressure [6].

In terms of the political and legal environment, the government's favorable policies also help game companies expand their overseas markets. Also, under the catalysis of the epidemic economy, video games have become one of the most popular cultural and creative activities for young people in the world. Many governments are aware of this trend and have introduced a series of supportive policies, such as setting up special funds for the game industry; Promise the game developer that adding landmark landmarks in the game can get financial support and tax concessions. These policies are good news for multinational game companies like Nintendo to expand their overseas markets.

(2) Threat for Nintendo

Microsoft's strong economic strength enables them to continue to operate in the gaming industry after experiencing the cost of failure in the game product competition of 4 billion dollars and make up for the shortcomings of their predecessors in new products. At the same time, Microsoft could use money offensive to buy third-party platform certification. Finally, and most importantly, Microsoft's latest games are coming out one year earlier than Nintendo's or SONY's, making it harder for Nintendo to time and win the market.

4. Nintendo's market strategy suggestion

As the gaming industry continues to evolve, scholars generally agree that gaming companies need not only excellent hardware and software technology but also effective marketing strategies. Schilling MA (2003) believes that if companies in the game industry want to maintain their market share, they need to improve their marketing strategies to follow or even guide the market trend [7]. Marchand A and Hennig-Thurau T (2013) think that companies in the game industry need to pay attention to consumers' preferences in the market, understand consumers' needs in the form of questionnaires, etc., to design their products in a targeted way [8]. SC Jain (1989) thinks that companies in the game industry need to pay attention to consumers' preferences in the market, understand consumers' needs in the form of questionnaires, etc., to design their products in a targeted way [9]. Based on the above analysis of Nintendo's internal and external conditions, this report proposes the following improvement suggestions [10].

Nintendo could consider setting up more offline experience stores overseas. Nintendo's classic game characters, such as Mario, Pokemon, Kirby, and Link, are familiar to the public. Taking these characters as ambassadors of offline experience stores, they can attract enough attention without too much publicity expenses and are very attractive to children and adults.

Nintendo could consider adding episode-by-episode, level-by-level incrementally unlocked purchases. Because Nintendo's software games are priced in a complementary way to the console's price, they are generally priced higher than other games in the market. This can lead to players who want to play a game but don't buy it because the price is too high. In this case, the buy-out system can be supplemented with the option of gradually unlocking purchases by episode or level, and players can choose to buy them out or buy them separately. That way, players can play more games, and buying incrementally doesn't feel like a buy-out. This is also a great way for Nintendo to increase its sales.

Nintendo could increase its ban on cracking consoles and develop new encryption technologies. For now, Nintendo's crackdown on cracked consoles is not strong enough, and only users who use cracked consoles to connect to the Internet have been blocked. In this case, to protect their intellectual property rights, but also promote the sale of their legitimate games, the development of a new set of encryption technology is worth considering.

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