

A Company Analysis and Financial Assessment of Microsoft

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Abstract. As a large enterprise that is almost well-known in the software market, Microsoft will naturally become the investment candidate of many investors because of its high visibility and broad coverage of the market. At this time, whether Microsoft is worth investors' investment has become a problem worth studying. In this regard, this paper analyzes and studies the investment value of Microsoft. By analyzing Microsoft's strengths, weaknesses, opportunities and threats (SWOT analysis framework), comparing the growth or decline of Microsoft's financial reporting data this year and last year, comparing the horizontal data ratio with other companies in the same market, and studying the development risks existing in the software market and the company itself, this paper concludes that investing in Microsoft is a result of both opportunities and risks. It is concluded that Microsoft is worth investing in, but investors should consider whether they can bear the impact of risk factors.

Keywords: Microsoft; SWOT Analysis; Financial Assessment.

1. Introduction

Microsoft is an American international computer technology company that drives digital transformation in the era of intelligent cloud and intelligent edge. Microsoft was founded in 1975 by childhood friends Paul Allen, an investor, and Bill Gates, a programmer. It continues to operate today under Satya Nadella's leadership. Microsoft's current headquarters are located in Redmond, USA, while its three operations centers, the most fully functional, are located in Dublin, Ireland, and the other two are in Reno, Nevada, USA and Singapore. It has its own research laboratories in many places around the world: the Cambridge Lab and the Beijing Lab, which have existed since 2000, the Bangalore lab and the laboratory in Cambridge, Massachusetts, which was established between 2000 and 2010, and the laboratory in New York and the laboratory in Montreal, which have been established after 2010. Microsoft's subsidiaries are also established in 105 countries such as Germany, Norway, India, and so on, which can be said to be all over the world.

Until now, Microsoft has approximately 221,000 employees worldwide, including 120,000 domestic (U.S.) employees and 101,000 international employees. The headcount also symbolizes that Microsoft is a massive company with operations in many parts of the world. Microsoft has a wide range of products, including but not limited to computer hardware and computer software markets. Microsoft Office Suite, which can be further subdivided into office business and office consumer, is Microsoft's most widely known product. At the same time, it also has excellent products in other areas, such as the Xbox in the entertainment market, the Microsoft computer in the PC market is widely praised, and Visual Studio which is preferred by many programmers and is used all year round.

The above information all points to the success of Microsoft in its market segment, and such a company will naturally be selected by many as one of their priority targets for investment. However, it cannot be denied that even in such a large company, investment risks still exist, so the analysis of Microsoft is a necessary step before making a decision to invest. Company analysis will start from two aspects of the company's competitive position and the company's own actual financial data, and find the company's investment risk and value by analyzing the company's strengths, weaknesses, possible opportunities and crises in the current market environment, as well as the company's own profitability and competitiveness compared with other companies in the same market as shown in various financial report data.

2. Microsoft Company Analysis

The analysis of Microsoft's competitive position in the market is one of the purposes of this paper. In order to achieve this goal, SWOT analysis framework is adopted in this paper. This research method includes, as Gürel mentioned in his research, the study of the strengths and weaknesses of the company in the current industrial environment, as well as the opportunities and threats that may exist or are likely to occur in the future [1]. This framework, which is often used in the business world, can be used to analyze the factors that affect Microsoft's competitive position in the current market, while observing the company's possible future development at the same time, as mentioned by Rizzo and Kim [2]. According to the research of David et al., SWOT can help company managers generate four strategies focusing on different aspects according to the four factors mentioned above, namely WO (weakness and opportunity), SO (strength and opportunity), WT (weakness and threats) and ST (strength and threats), as what shown in Table 1 [3].

Table 1. Four strategies formed from SWOT.

	Strength	Weakness
Opportunity	SO	WO
threats	ST	WT

2.1. Strength of Microsoft

Strength is attributes within the company that contribute to achieving goals [4]. It describes what an organization is good at and what makes it stand out from its competitors [5]. For Microsoft, it is widely known to people all over the world, which is a proof that it has a strong brand awareness. According to the research of Aaker, brand awareness is an asset that can influence consumers' likes, opinions and even their behaviors on a company's products [6]. Through the results of the data analysis conducted by Bernarto et al., the higher the brand awareness, the higher the brand image, brand loyalty and brand trust can be summarized [7]. Companies must decide how to attract new investors through these existing results [5].

2.2. Weakness of Microsoft

Weakness is attributes within the company that stop the company to achieving goals [4]. It prevents the company from operating at an optimal level [5]. In Microsoft's current weakness, the decline in the company's revenue can be directly seen by the public from the company's 10k report. Windows revenue fell 13%, or \$3.2 billion, due to fewer Windows OEM -- Windows OEM revenue decreased 25%. Meanwhile, Microsoft's device revenue also fell by \$1.8 billion, or 24 percent. According to Microsoft's explanation in its 10k report, the decline in both Windows OEM revenue and device revenue was related to other weak factors beyond the declining PC demand that continued to result from rising channel inventory levels. This indicates that Microsoft still has some unspecified weaknesses that the company needs to identify and improve in order to remain competitive in the market [5].

2.3. Opportunity of Microsoft

Opportunity is an attribute external to a company that helps achieve its goals [4]. While maintaining the current foundation of existing technologies and products, Microsoft set out to transform the workplace and provide new modern, modular business applications to drive deeper insights. At the same time, Microsoft is revolutionizing many types of work by applying artificial intelligence and environmental intelligence to drive insight. It also prepares to expand the company's reach and competitiveness in the entertainment industry by creating new gaming experiences and pushing the boundaries of innovation in console and PC gaming. These actions have the possibility of generating new products or entering new markets, which are all opportunities for the company.

2.4. Threat of Microsoft

Threats are attributes external to a company that have the risk to stop the company achieving its goals [4]. The market industry that Microsoft participates in has competitors of different sizes, including international companies with large resources and small specialized companies specializing in one of the technologies. At the same time, because the entry threshold of such markets is not very high, the number of competitors continues to increase, resulting in the constant fluctuation of Microsoft's market position. At the same time, Microsoft also faces risks such as the high cost of developing new software or technology, building and maintaining infrastructure, and the constant threat of cyberattacks on its data.

2.5. SWOT Analysis

According to the various SWOT information mentioned above, Microsoft's SWOT table can be summarized as Table 2. From the perspective of SWOT analysis, Microsoft still has a good market position in today's crowded market because of its high customer stickiness and the new technologies and products it is constantly launching or will launch, even though the company is facing some risks or will face some risks.

Table 2. SWOT table for Microsoft.

	Internal	Strength	Weakness
External		<ul style="list-style-type: none"> • Strong brand image, loyalty and trust • Product chain covering multiple markets 	<ul style="list-style-type: none"> • Declining PC demand • Declining revenue • Other weak factors have not been identified
Opportunity	<ul style="list-style-type: none"> • New modern modular business applications • New gaming experience • New artificial intelligence applications 	<ul style="list-style-type: none"> ○ Put new products into the market to further expand its visibility and influence ○ Use product volume and customer loyalty to increase revenue 	<ul style="list-style-type: none"> ○ Introduce new technology to increase customer demand ○ Research to find out other weak factors, so as to avoid or solve
Threats	<ul style="list-style-type: none"> • A large number of competitors of different sizes • High cost • Data security problems 	<ul style="list-style-type: none"> ○ Increase customer engagement through product output 	<ul style="list-style-type: none"> ○ Reduce output of products that are eliminated by customer intentions

3. Microsoft Financial Assessment

The analysis of Microsoft's financial report data is another purpose of this paper. In this paper, Microsoft's recent financial information will be obtained and analyzed mainly from the balance sheet and income statement, and compared with the financial information of other competitors in the industry it participates in.

3.1. Financial Performance

According to the research of Eddy, one of the main goals of creating a balance sheet is to help decision makers accurately understand the important consequences of different choices, and it is also a way to present the results of intervention to decision makers simply and powerfully [8]. An income statement, also known as a statement of profit or loss, is a financial statement that summarizes the expenditure, income and net return of an enterprise during an accounting period; decision makers can also learn about profit or loss information from it [9].

Liquidity ratios can help managers determine whether a company has the ability to pay its bills when needed, while giving managers the confidence to make smart and bold decisions [10]. Current ratio and acid test ratio are two types of liquidity ratios. The current ratio is obtained by dividing current assets by current liabilities. According to the balance sheet of Microsoft, its current ratio in 2023 is equal to 1.77. The figure is larger than 1 which indicates a positive sign, suggesting Microsoft has the ability to pay its debts. Although this figure is less than its current ratio in 2022, which is 1.78, it is not down much, only about 0.01, so there is no need to worry about this aspect for now. Acid test ratio is obtained by first subtracting value of inventory from current assets, then dividing the value by current liabilities. For Microsoft, its acid test ratio in 2023 equals 1.75. This figure shows that Microsoft has a strong ability to pay off its debts in the short term.

Profitability ratios are often used as a tool to analyze a company's ability to generate profits over a specified period of time, and they are an important factor in expressing the company's future prospects and maintaining its continued viability [11]. Gross margin ratio is chosen as the representative in this paper. It is often taken as a visual demonstration of a company's ability to effectively convert sales revenue into gross profits [11]. According to Microsoft's income statement, its margin ratio in 2023 is equal to 69%, which is 1% higher than its figure in 2022, 68%. The value suggests Microsoft is doing a pretty good job of turning revenue into gross profit.

3.2. Competitive Advantage

Comparisons with other companies in the industry are also a way to show whether Microsoft is doing well or not. In the competition section of Microsoft's 10k report, this article chooses two equally well-known companies as comparison objects: Apple and Cisco Systems. The comparison will also focus on the analysis of the company's financial data, as Table 3 shown.

Table 3. Financial ratios calculated for three companies.

	MSFT	AAPL	CSCO
Share price (in 2024-04-08)	\$426.56	\$169.45	\$48.53
TTM EPS	11.06	6.42	4.12
NTM EPS	12.16	6.7	3.58
EPS growth rate	9.95%	4.36%	-13.11%
TTM revenue/\$000	227583	385706	57233
NTM revenue/\$000	260193	394432	51820
Revenue growth rate	14.33%	2.26%	-9.46%
TTM P/E	38.57	26.39	11.78
NTM P/E	35.08	25.29	13.56
PEG	3.88	6.05	-0.90

Data source: Estimize

Trailing 12 months (TTM) EPS is calculated by adding up last four quarterly EPS. Next 12 months (NTM) EPS is calculated by adding up next four quarterly EPS, which are all forecast numbers. EPS indicates how much money a company makes for each share of its stock. The data of the above three companies show that Microsoft has the highest EPS value, which means that it has strong profitability. At the same time, Microsoft also has the highest EPS growth rate, proving that its future EPS performance is also worth looking forward to.

Comparing the revenue data of the three companies, although Apple has the highest revenue value, its revenue growth rate is far exceeded by Microsoft's data. The revenue growth rate of 14.33% and the EPS growth rate that is not far from this data prove that Microsoft's revenue growth is sustainable. Although it is not as high as Apple's at present, there is also the possibility that future revenue will be better than Apple's, so the future can be expected.

According to Gottwald's research, P/E ratio is used to assess which stocks are relatively "expensive" and which are relatively "cheap" in a particular industry [12]. It is calculated by dividing stock price by earning per share. Microsoft has the highest P/E ratio value among the three companies,

up to 38.57, which means that people have such high expectation of Microsoft's stock return that they are willing to buy Microsoft's stock at a higher price. Moreover, Microsoft's stock price is also highly relative to earnings.

PEG ratio is also one of the criteria to judge whether a stock is expensive or not related to its earnings performance [13]. The smaller the number, the better it is for the person buying the stock, because the stock proves to be cheaper. Microsoft has the middle number, so even if Microsoft's stock price is much higher than Apple's stock price, after accounting for earnings, it can be seen as a cheaper existence than Apple's stock, and thus more favored by investors.

From the comparison of several ratios of the three companies above, it can be seen that Microsoft's performance in data is mostly better than that of other companies selected in this paper, which proves that Microsoft's performance level has a high probability of being at or even better than the average level of the industry. This is certainly a positive sign for investors who want to invest in Microsoft.

4. Microsoft Risk Assessment

While Microsoft has many advantages, it cannot avoid the potential or has emerged risks in the software market or the company itself.

4.1. Market Risks

The problem that most, if not all, software companies are or may face is the risk factor that exists in the entire market. This paper will list a few examples for reference.

Unreliable technology or tools are a problem faced by almost any company that develops software [14]. It exists because of the rapid development of today's technology, many technologies are being replaced or improved and optimized at a high speed, and companies that do not have the ability or have used old technologies as the basis for projects will face various problems caused by technology. For instance, the system is not stable or compatible with the new technology, there are security flaws, more effort and time to troubleshoot possible problems and resolve problems, or directly update the project's code base resulting in increased costs. These problems will cause the company to lose the favor and even trust of customers.

The continuous change of market demand is also a common problem that the software market is facing [14]. Market demand changes when customer preferences, industry trends, or technology advances. If a project doesn't keep up with current market demands, it runs the risk of appearing redundant or even useless. This may cause the company to lose part of the market competitiveness and user affection, resulting in financial losses. In the software development process, the desire to keep up with new market requirements means that the development process needs to be changed or updated, which increases the cost burden.

4.2. Business Risks

This section focuses more on the risks that Microsoft itself will face, similar to the threats part of the SWOT analysis above.

According to Microsoft's 10k report, Microsoft is also faced with various economic risks- exchange rate, interest rate, credit and equity prices- although Microsoft has tried to avoid or control the possible impact of these risk factors by using derivatives instruments, these problems are still worthy of consideration. A decrease in foreign exchange rates, interest rates, stock prices, and an increase in credit spreads can negatively affect Microsoft's financial value.

According to a letter from Microsoft to shareholders, the company also addressed issues related to the development of AI. The company stated that it has set a barrier for technologies that can affect or cause harm to people's legal status or even lives, which shows that Microsoft's AI technology has this risk problem, although they are actively looking for solutions.

5. Conclusion

Through the above analysis of Microsoft's competitive position and financial data in the markets it is involved in, it can be concluded that Microsoft still has a strong competitive ability, which is a good bonus point for investors who want to invest in Microsoft. Based on the analysis of SWOT method, Microsoft can be considered to have a good competitive position in the market. This is due to its high level of customer engagement and the continuous introduction of new technologies. Comparing Microsoft's numbers with those of other companies in the industry shows that Microsoft's numbers perform well and are worth investing in.

But at the same time, the general problems existing in the market and the risk factors that the company's operation itself may appear or face cannot be ignored. Whether it is the ongoing technological advancement and changing market demand issues faced by software-related companies in general, or Microsoft's own possible cost control issues, ongoing competition issues with a large number of competitors and alternative products, and data security risks, all have the potential to negatively impact Microsoft's performance and thus investors' returns.

Therefore, before choosing to invest in Microsoft, it is necessary to carefully consider the possible results of risk factors, and decide whether to become a member of Microsoft shareholders based on whether investors can afford these results.

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