

Research on Starbucks' Investment Strategy Based on P/E, EV/EBITDA and P/S Methods

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Abstract. With the development of society, investors have begun to realize the paramount significance of investing. The majority of investors prefer to know more about brands they are familiar with, like Starbucks, a worldwide brand. However, whether it is worth investing in Starbucks is unsure. Consequently, this study used three methods (P/E, EV/EBITDA and P/S) to make an analysis of the investment strategy of Starbucks. There are two findings in this study. Firstly, four comparable companies should be chosen and then use the three methods, respectively, to get the average fair value of Starbucks. Secondly, by comparing the up-to-date stock price with the value calculated, it is found that the value obtained by all approaches is smaller than that shown on the website. Consequently, Starbucks is undervalued. As time goes by, if investors invest in Starbucks at this time, the stock price might go up to its fair value, bringing investors considerable revenue. Thus, it suggests that this paper helps investors get an optimal investment strategy for Starbucks. In addition, Starbucks will also benefit from this paper due to the detailed description of stock evaluation.

Keywords: EV/EBITDA; Starbucks; investment strategy.

1. Introduction

In nearly all universities, business school students are required to study a compulsory course in investment science. Why is learning investment so popular in today's society? Is that because numerous failed investments which deprive investors' lives are happening worldwide or because investors are not satisfied with the traditional ways of earning money? There is a more practical significance that investment is not a way to get rich. Successful investment can increase income, reduce unnecessary expenditure and improve the living standards of individuals and families. In this era of continuous currency depreciation, successful investment appears to be able to avoid the risk of asset impairment. What's more, when facing various products, most investors lack industry and enterprise business model analysis capabilities. Investors are afraid of evaluating companies inaccurately. Furthermore, due to the pandemic, the international stock market dived rapidly, hitting the economic environment hard, especially in Japan, Korea and Italy. Zhang (2021) kept the opinion after researching on the case of Chile that in the post epidemic era, various long-term plans of Chile's power industry will be accelerated, and project opportunities will continue to emerge [1]. So is the catering industry. The most important factor is that there were some debates about whether Starbucks should be moved out of the Forbidden City a few years ago, and a deputy of the National People's Congress persisted in the view that prohibiting Starbucks from opening in relics is up to the problem of protection of Chinese cultural relics. Such a phenomenon is unexpected, so for investors, public opinion and competence of the company in all aspects are factors to be considered. Policy will also influence the decision making by investors. Therefore, not only financial analysis of the company but also social influence should be taken seriously. This allows investors to get a general sense of whether it is profitable to invest in this brand. As a famous brand, Starbucks absolutely attracts investors' attention. However, few investors realize how to judge whether it is appropriate to invest money in a period of time. Research on Tianyu Company by Wang (2022) showed that the price-to-earnings and price-to-net methods of the relative valuation method were used to assess the investment value of the shares of Tianyu [2]. Miao (2022) made an analysis based on available data and valuation models by referring to the existing literature on enterprise valuation and evaluating the company with big data [3]. Zhang and Xu (2022) illustrated the reasons and process behind the growing price of baijiu after doing the project [4]. From the perspective of Vanke's profitability, Xu (2021) analyzed its overall

competitive advantage in combination with internal financial indicators [5]. Wang (2021) used principal component analysis to analyze the development status of China's Shanghai stock index and film media industry [6]. Shi (2022) analyzed the bank's investment value and operation capability based on the P/E and P/S ratios, adding risk analysis of Zhengzhou Bank from any aspect [7]. Ma (2020) analyzed the development of the Tesla brand from the development trend of the whole industry [8]. Nevertheless, none of them focused on the valuation of Starbucks. According to Lu (2019), there is no single method of investment that can consistently make money over time and investment methods are becoming more complex and intertwined as time passes [9]. Ding (2022) revealed that the investment activities would be affected by the market environment to a certain extent, such as the changes in market supply and demand factors, quality factors, etc. [10]. So, this study will take Starbucks as a case study to teach investors how to make a fair judge using P/E, EV/EBITDA and P/S methods, which are also suitable for evaluating other companies and combining them to put forward macro investment strategies. In this way, the blank of Starbucks' investment strategy in the first quarter of 2022 was filled, and investors will learn the three methods, respectively, and be more confident when investing in economic products.

The remainder of this paper is organized as follows: section II emphasizes the importance of proper investment strategy. Section III is the process of solving the investment problem by three methods. Finally, some proposals will be given to the investors.

2. The importance of investment strategy analysis: case of Starbucks

Due to the considerably negative influence made by COVID-19, the economic situation at home and abroad is not very good. For example, all small operation fees increased, especially the transportation fee, which went up almost two times more than before, which increased our investment risk. It is impossible for people to predict what will happen in the future and estimate the risk based on previous historical data and through the method of probability and statistics to control and reduce the risk. As for the majority of investors, they are not familiar with investing, making them afraid of losing money. Under this situation, the right investment strategy plays an indispensable role, because the strategy is assembled according to a guiding ideology, leading to a satisfactory result. Investment decision-making mistakes are the biggest mistakes of enterprises. An important investment decision-making mistake will often put an enterprise in trouble or even bankruptcy. In addition, information asymmetry has always been one of the biggest pain points in the financial industry. It is obvious that those who get the market news first always earn the most in the end. How fabulous it would be if investors knew the latest investment strategy of Starbucks. The next part is the process of getting results.

3. Investment strategy analysis: case of Starbucks

Founded in 1971, Starbucks coffee company, headquartered in Seattle, Washington, is committed to purchasing and baking the world's high-quality Arabica coffee. With more than 32,000 stores in 82 markets around the world, Starbucks is the world's leading professional coffee roaster and retailer. Since entering China in 1999, Starbucks has been committed to developing into a distinctive company: while inheriting the classic coffee culture, it cares for partners and provides customers with different Starbucks experiences. Starbucks has opened more than 5000 stores in more than 200 cities in mainland China and has more than 58,000 Starbucks partners. As for its products, the best-selling coffee is espresso and concocted coffee, including a series of products such as latte, mocha, vanilla latte, caramel macchiato, American coffee and freshly prepared coffee. Starbucks also sells Frappuccino, which is popular among youngsters. What's more, tea and chocolate are hot sellers every quarter. This series of products includes matcha latte, black tea latte, Chinese tea, exotic tea, iced plum black currant tea, iced mango hibiscus tea, iced lemon tea and classic chocolate.

Next, this paper will analyze Starbucks from four aspects, current strategy, recent financial situation, selection of a comparable company and three evaluation methods. It is the results of each part that generate the final evaluation of Starbucks.

3.1 Current strategy

From Starbucks' current strategy, a key factor in determining the success or failure of business activities, it has a clear direction for enterprises to enhance their own business strength. There are three main strategies below that Starbucks uses to maintain its brand value, and it has different strategies in different countries.

Firstly, use fixable investing and cooperative patterns in different countries. For example, in England and Thailand, Starbucks holds 100% equity. In Japan and Korea, Starbucks holds 50% equity. In some districts, like Taiwan and Hong Kong, Starbucks holds only 5% equity. In Singapore and Malaysia, Starbucks does not hold shares and is only authorized to operate.

Secondly, Starbucks focuses on direct operations. They persist with this operation method because they believe there are humans behind the brand, which shows the fact that all operators are required to approve of the main idea of Starbucks. Those franchisees, however, are investors, whose first target is making money instead of operating a brand.

Lastly, Starbucks never spends a penny on advertising due to their belief that without fantastic products and service, the more customers attracted by the advertisement, the more negative images will be discovered in public.

3.2 Recent financial situation

The ratio analysis through the financial statement data, ability can reflect the corporate liquidity, leverage and debt. Below is the financial situation of Starbucks' enterprise and financial risk data. It is remarkable that the rate of both return on assets and operating margin fluctuated dramatically. The changing regularity of all three lines was almost the same, with a general decrease from 2017 to 2020 and an increment from 2020.

(1) Return on assets

The ROA is calculated by the following formula. The higher the return on assets, the higher the profit a company can get. The profit rate and the asset turnover rate are the keys to determining the return on shareholders' equity. What's more, the turnover rate reflects the management ability of the company, and the profit rate reflects the profitability of the company. The multiplication of the two determines the return on assets and the return on shareholders' equity.

$$\text{Return on assets} = \text{net profit} / \text{average total assets} * 100\% \quad (1)$$

(2) Gross margin

The gross margin is calculated by the following formula. From the line graph, the gross margin rate is 30.62, 29.74, 28.25, 21.51 and 28.87 from 2017 to 2021, respectively. The higher the gross profit margin, the stronger the profitability of the company. From the perspective of profit, the higher the gross profit margin, the greater the profit of the enterprise. At the same time, it also shows that the products of the enterprise have better competitiveness.

$$\text{Gross profit} = \text{sales} - \text{cost of products sold} \quad (2)$$

(3) Operating margin

The operating margin is calculated by the following formula. Meanwhile, from 2017 to 2021, operating margin rate of Starbucks was 17.41, 15.4, 14.77, 6.45 and 16.03. The higher the operating profit margin, the more operating profit provided by the sales of commodities, the stronger the profitability of the enterprise. So, in any case, Starbucks has an upward trend and is suitable to invest in.

$$\text{Sales profit rate} = \text{total profit} / \text{operating revenue} \times 100\% \quad (3)$$

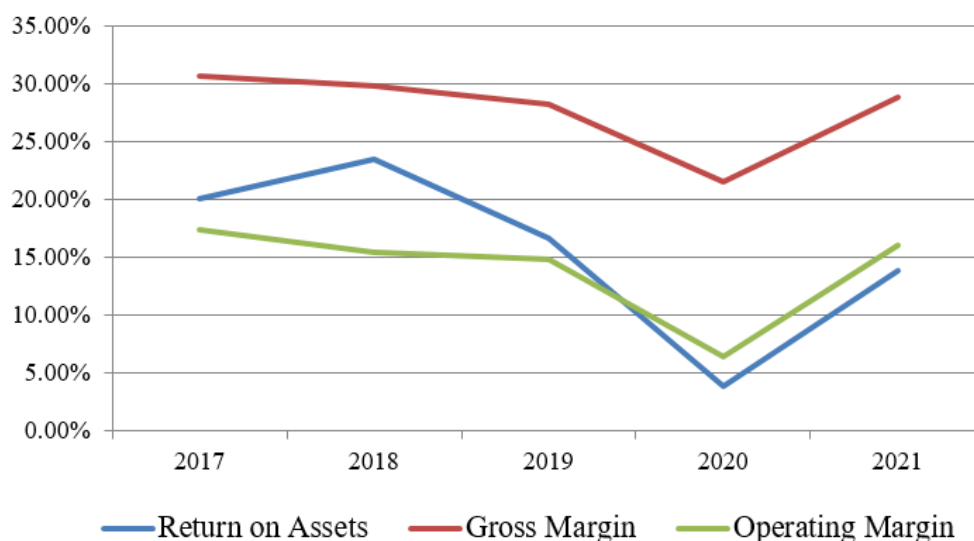


Figure 1. Trend chart for 2019-2020.

3.3 Selection of comparable company

With the purpose of looking for Starbucks' comparable company, it is necessary to find out its products and market position. There are numerous main products in Starbucks, such as Latte, Cappuccino, Popsicle, Cake and Dessert and seven companies were discovered selling similar products to Starbucks. They are McDonald's, Wendy's, Restaurant Brand International, Yum Brands, Domino's, Greggs and Shake Shack. However, not all companies will be used to being comparable companies and they will be picked from three angles. The first angle is the scale of the company. Searching for the enterprise value on the website, the figures of the EV of Wendy's, Greggs and Shake Shack are 7.66, 2.33 and 2.77 respectively, which are much smaller than Starbucks, so these three companies were initially excluded. It is well known that shareholders generally get profit in two ways. The first is appreciation, and the second is dividends. Therefore, the impact of a company's dividend policy on its stock price cannot be ignored. The second evaluation dimension should be dividend per share, which can reflect the dividend policies of different companies. Also, the dividends per share of the above three companies are much smaller than that of Starbucks. After talking about returns, it's natural to think about risk. Hence the third angle is to evaluate the financial risk of the company, and the asset-liability ratio has an influence. The higher the ratio, the greater the financial risk of the company. The financial risk of Greggs and Shake Shack is significantly lower than that of Starbucks. In the end, four companies were selected that are closer to Starbucks. They are McDonald's, Restaurant Brands International Inc, Yum brands and Domino's.

Table 1. Screening of comparable companies.

	Starbucks	McDonald's	Restaurant Brands International Inc.	Yum Brands	Domino's
EV	109.78	229.30	30.07	44.17	17.49
DPS	1.96	5.52	2.16	2.28	4.40
Asset Liability Ratio	129%	112%	83%	240%	351%

Table 2. Screening of comparable companies (continued).

	Wendy's	Greggs	Shake Shack
EV	7.66	2.33	2.67
DPS	0.5	0.75	0
Asset Liability Ratio	89%	52%	70%

3.4 Valuation analysis-based on P/E, P/S, EV/EBITDA

By utilizing the P/E, EB/EBITDA and P/S ratios, the enterprise value of Starbucks will be apparent. In these three formulas, P means the stock price of Starbucks. S represents the total sales of stock. EV is the abbreviation of enterprise values and EBITDA is the abbreviation of Earnings before Interest, Taxes, Depreciation and Amortization.

(1) P/S ratio

The P/S is calculated as follows. Find the P/S ratios of these companies from Yahoo Finance and then work out the average of the four comparable companies. It was 5.04. Next, the earnings per share of Starbucks should be found, which is 25.81(as shown in table 3). In order to keep the data source consistent, all statistics were found on Yahoo Finance. Finally, multiply the two values. The fair value of Starbucks was gotten based on the P/S ratio. It is 130.08. Compared to the enterprise value found on the website before, which is 109.78. Starbucks was undervalued by this method. This result alone is not convincing, which means the other two formulas should be used too.

The figure will not be negative and a meaningful value multiplier can also be calculated for those loss-making enterprises. This formula is easy to compute and comprehend for beginners, making investing easier when faced with numerous companies. There are shortcomings in that this formula cannot reflect change in the cost, one of the most significant factors influencing the company's evaluation. Lastly, if two enterprises are in different industries, this formula is meaningless.

$$P/S \text{ (price to sales ratio)} = \text{Stock price/Sales per share} \quad (4)$$

Table 3. P/S and Sales per share of comparable companies.

	Starbucks	McDonald's	Restaurant Brands International Inc.	Yum Brands	Domino's
Price/sales	2.91	7.87	4.09	5.3	2.88
Sales per share	25.81	31.88	18.51	22.17	120.06

(2) EV/EBITDA

EV/EBITDA is calculated as follows. The second formula is EV/EBITDA. The average Enterprise Value divided by EBITDA for the other four comparable companies is 18.18. Then, in order to compute the enterprise value of Starbucks, it is necessary to multiply the EBITDA of Starbucks by 18.18, and the consequence is 117.261. Finally, by comparing the actual enterprise value of Starbucks with that which was found on the website, it is obvious that Starbucks is undervalued.

This formula has an excellent advantage. Firstly, the calculation of EBITDA does not need to subtract interest and tax, which makes companies in different countries and markets more comparable. The results are more credible for investors. Next, since the valuation method is not affected by different capital structures, and the change in the company's capital structure will not affect the valuation. It is conducive to comparing the valuation levels of different companies. Nevertheless, the valuation effect of companies with many holding structures is poor because EBITDA does not reflect the cash flow of minority shareholders, but the valuation method reflects the cash flow of holding companies too much. It does not reflect capital expenditure demand and overestimates cash.

$$EV/EBITDA = \text{Enterprise Value/ Earnings before interest,tax,depreciation and amortization} \quad (5)$$

Table 4. EV and EBITDA of comparable companies.

	Starbucks	McDonald's	Restaurant Brands International Inc.	Yum Brands	Domino's
EV	109.78	229.30	30.07	44.17	17.43
EBITDA	6.45	11.79	2.12	2.30	0.81
EV/EBITDA	14.46	19.46	14.65	18.54	20.07

(3) P/S ratio

The P/E is calculated as follows. The last formula is the P/E ratio. Basing on the peer group selection above, the EPS (earning per share) and P/E ratio for each of the companies were obtained from Yahoo Finance to obtain the peer group's average P/E ratio. Then, by using the multiples valuation function, the evaluation of Starbucks' stock price is \$76.66 (as is shown in table 5) per share. This figure is smaller than Starbucks' actual stock price. And it is consistent with the other two methods that Starbucks is undervalued. Now that all the three evaluation results are in and all of them give the same answer---that McDonald's share price is over-valued right now.

For this formula, the data is easy to obtain and the calculation is simple. The P/E ratio links price and income, and directly reflects the relationship between input and output. It also covers the impact of the risk compensation rate, growth rate and dividend payout rate and is highly comprehensive. The advantage is that if the revenue is negative, the P/E ratio is meaningless. It is not only affected by the fundamentals of the enterprise itself, but also by the overall economic prosperity. The ratio will increase during the whole economic boom and decline during the whole economic recession.

$$\text{P/E (price earnings ratio)} = \text{Stock price} / \text{Earnings per share} \quad (6)$$

Table 5. Stock Price and EPS of comparable companies.

	Starbucks	McDonald's	Restaurant Brands International Inc.	Yum Brands	Domino's
Stock Price	76.66	249.23	52.32	115.61	342.70
EPS	3.70	9.48	2.69	5.21	13.08
P/E	20.72	26.29	19.45	22.19	26.20

(4) Further discussion on P/S, EB/EBITDA, and P/E ratio

But here's another question—while the EV/EBITDA and P/E ratio methods show that Starbucks' stock price is undervalued by about 13-15%, the PS ratio method gives such a deviated answer like of 50%. Then why is this answer so different from the other two? By going through these companies' operating performance, it is found that, from Morningstar.com, the net margins for these companies were quoted. It is obvious that Starbucks' net margin is relatively much higher compared to the others. Based on this, each of the peer group companies' net margins and revenues were used to get the weighted average net margin for the peer group. And then by using Starbucks' net margin divided by the weighted average net margin as a new multiple to multiply the PS ratio's outcome. Finally, the result is much closer to the other two methods. The difference is caused by Starbucks' extraordinary cost management and expense control. The P/S ratio method is not appropriate as a multiple for evaluating Starbucks' stock price because its revenue is not exceptional, but its ability to convert revenue into profits is exceptional, and that is why the P/S ratio method is not appropriate as a multiple for evaluating Starbucks' stock price.

3.5 Investment Strategy

In summary, during the first quarter of 2022, the enterprise value of Starbucks was absolutely undervalued, so there is such a big difference between the values we calculated and those released on Yahoo Finance. With the pursuit of higher life quality, Starbucks has become increasingly popular in society. Nearly all youngsters have heard of this brand. Only a minority of people have tried it. In addition, when a company is undervalued, which means it has a lot of space for development. At this time, only a few people realize it is a fabulous opportunity to invest in because Starbucks will absolutely come back to its fair position, which might benefit the investors who buy Starbucks' stock right now.

In the short term, Starbucks has an excellent development trend in which it is worth invest in. However, in the long term, under the situation of the pandemic, there are still numerous risks and problems that should be paid attention to when investing in the catering industry.

4. Conclusions

This paper studies the problem of what is the proper investment strategy using P/E, EV/EBITDA and P/S ratios and analyzes the current situation of Starbucks in order to give investors a direct understanding. Starbucks is undervalued after calculating the average value by using three valuations. As Starbucks showed on the website, its current strategies focus on different countries, illustrating that Starbucks has done prior research on every district. In addition, the financial situation of Starbucks showed that the return on assets, which is related to the revenue of shareholders, will probably go up in 2022. Considering the trend development, the investors are advised to invest a portion of their funds in Starbucks stock. Furthermore, there are only a few coffee brands as successful as Starbucks, which means Starbucks is going to be prosperous to at least ten years. As the leading brand in the catering industry, it is hard to shake its position.

This paper gives an overall analysis of the sustainable development of Starbucks and makes suggestions about its investment strategy after the first quarter of 2022. However, there are still some blanks that are hard to analyze. For example, why is the value computed by the financial statement on the official website different to Yahoo Finance? Also, this paper only analyzes the particular period of time (from 2022.1 to 2022.4), which means the value should be updated after a few months. So, these three valuation methods are expected to be used by investors not only on Starbucks, but also on other brands in the future after viewing this paper. There could be more in-depth research on more aspects for investors to take into account.

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