Research on the Starbucks in Operational Activities

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Abstract: Starbucks is one of the most successful coffee companies in the world, but Starbucks has been expanding continuously in terms of business. In the past ten years, the number of stores in China has increased by nearly ten times. Although the expansion policy shows that Starbucks is still in the stage of growth, from the data of the financial statements in the past 5 years, Starbucks seems to have some problems. This article mainly analyzes the ratio of financial reports related to Starbucks business activities, compares liquidity, profitability data such as ROA, ROE, etc., and further decomposes these data with DuPont analysis. The main purpose of this article is to find out the reasons that caused these changes to analyze the development trends, advantages and problems of Starbucks in the past 5 years. From the analysis, we can see that Starbucks has the advantage of the supply chain system, but there are problems in other respects.

Keywords: Starbucks, financial report, ratio analysis, Dupont analysis, risk

1. Introduction

Starbucks Corporation is an American multinational chain of coffeehouses and roastery reserves headquartered in Seattle, Washington. As the world's largest coffeehouse chain, Starbucks is known for its signature roasted coffee, handcrafted beverages, and lively atmosphere [1]. But in recent years, some problems have appeared. The financial statements of a company can directly reflect its operating performance and other related information. Therefore, by examining the financial reports, we can gain insights into the current status, strengths, weaknesses of Starbucks, and make predictions about its future development. We will mainly use data from the income statement and balance sheet [2]. In this paper, we can streamline Starbucks' financial statements and use some ratios to more intuitively reflect why Starbucks has become risky based on the research in the ratio of financial report data like the ROA and ROE. At the same time, it can analyze existing problems and provide suggestions for further development.

2. Theoretical Basis

ROA and ROE are valuable indicators of a company's profitability and efficiency, as they provide insight into how effectively a company is using its assets and equity to generate profits [3]. The paper uses ratio analysis to more intuitively analyze the financial reports of Starbucks over the past five years instead of just focusing on the data in the report. This can effectively prevent interference from data surface phenomena, and enable analysis based on the relationships between data. The main theories used include.

2.1. The Measurement of Profitability

In this progress, the paper mainly uses the figures of ROA and ROE. ROA (Return on Assets): ROA is used to measure a company's ability to generate net profit using its assets. The formula for calculating ROA is net profit divided by total assets. This indicator tells how much net profit the company generates per dollar of assets and is an important measure of the company's profitability. Generally, the higher the ROA, the better the company's operational efficiency. ROE (Return on Equity): ROE is used to measure a company's ability to generate net profit using its capital. The formula for calculating ROE is net profit divided by equity. Generally, the higher the ROE, the more efficient the company's use of capital and the greater value it creates.

2.2. The Measurement of the Efficiency

In this section, the paper mainly calculates three of the main figures: Assets turnover, Accounts receivable turnover and the inventory turnover.

Assets turnover is used to measure the efficiency of a company's assets, which is the ratio of a company's sales revenue to its total assets. The formula for assets turnover is: Sales revenue/Total assets. This metric tells the readers how much sales revenue a company generates per dollar of assets, and is an important indicator of a company's operational efficiency.

Accounts Receivable turnover is used to measure a company's ability to collect its accounts receivable within a certain period of time. The formula for accounts receivable turnover is: Sales revenue/Accounts receivable. This metric tells us how well a company manages its accounts receivable and its liquidity.

Inventory turnover the ratio of a company's sales revenue to its inventory. The formula for inventory turnover is: Sales revenue/Inventory. This metric tells us how much sales revenue a company generates per dollar of inventory, and is an important indicator of a company's inventory management and sales ability. Typically, the higher the inventory turnover, the better a company's inventory management ability and the faster its inventory turnover rate. When we calculate these three pieces of data, we can obtain some information about internal management of the company, such as whether the company can collect debts quickly, whether it does not incur a lot of costs in storage, etc. Therefore, it is necessary to perform this calculation.

3. Profitability Calculation of Starbucks

The paper has extracted useful data from Starbucks' financial statements for the past five years, as we can see in tables 1 and 2, and compiled them as follows [2]:

Table 1: Useful data in the income statement.

	2022	2021	2020	2019	2018
total net revenues	32250.3	29060.6	23518	26508.6	24719.5
product and distribution costs	10317.4	8738.7	7694.9	8526.9	7930.7
total operating expenses	27866.6	24573.8	22278.8	22728.7	21137.4
operating income	4617.8	4872.1	1561.7	4077.9	3883.3
interest expense	482.9	469.8	437	331	170.3
net earnings including noncontrolling interests	3283.4	4200.3	924.7	3594.6	4518

Table 2: Useful data in the statement of financial position.

	2022	2021	2020	2019	2018
Inventories	2176.6	1603.9	1551.4	1529.4	1400.5
Accounts receivables	1175.5	940	883.4	879.2	693.1
Total Assets	27978.4	31392.6	29374.5	19219.6	24156.4
Accounts payable	1441.4	1211.6	997.9	1189.7	1179.3
Total current liabilities	9151.8	8151.4	7346.8	6168.7	5684.2
Total liabilities	36677.1	36707.1	37173.9	25450.6	22980.6
Total equity	-8698.7	-5314.5	-7799.4	-6231	1175.8

The paper just focuses on the performance of Starbucks, so it will ignore the events that happen in the consolidation and treat them as a whole and analysis the data ratio.

The paper ignored all the income tax savings and will use the average figure of the current total assets and the prior period's assets.

3.1. Calculation and the Analysis of ROA

According to the formula of ROA: $ROA = \frac{Net\ Income + interest\ expense}{average\ total\ assets}$, then it can be used to calculate the figure of ROA:

Table 3: ROA of the Starbucks.

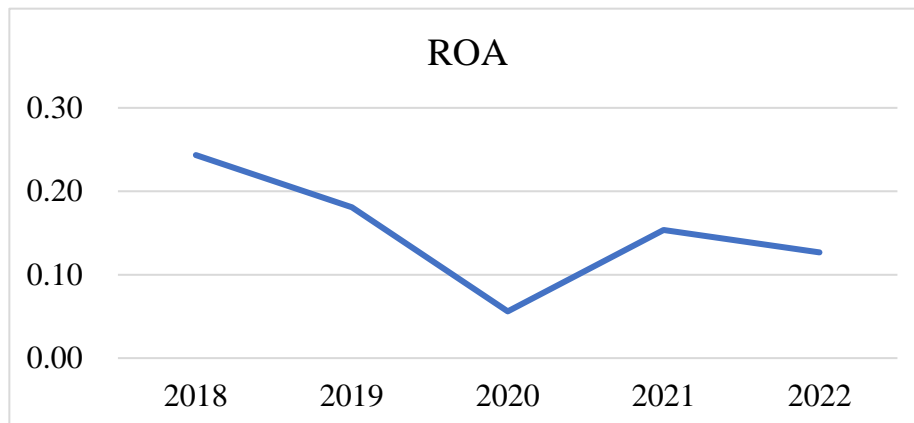|	2022	2021	2020	2019	2018
Net income	3283.4	4200.3	924.7	3594.6	4518
interest expense	482.9	469.8	437	331	170.3
average total assets	29685.5	30383.55	24297.05	21688	19261
ROA	0.13	0.15	0.06	0.18	0.24

Figure 1: Changes of ROA from 2018 to 2022.

According to table 3 and figure 1, it can be seen that Starbucks had an ROA of 0.24 in 2018, and over the next five years, it experienced some fluctuations, ultimately declining to 0.13 [2]. In particular, there was a nearly one-third decrease from 2019 to 2020, which can be attributed to the

impact of the COVID-19 pandemic. Overall, Starbucks' ability to generate profits from its assets declined over these five years, although there was some recovery after 2020, further improvements are still needed.

3.2. Calculation and Analysis of ROE

In this progress, we use the formular: $\text{ROE} = \dfrac{\text{Net Income}}{\text{Average Equity}}$

Table 4: ROE of the Starbucks.

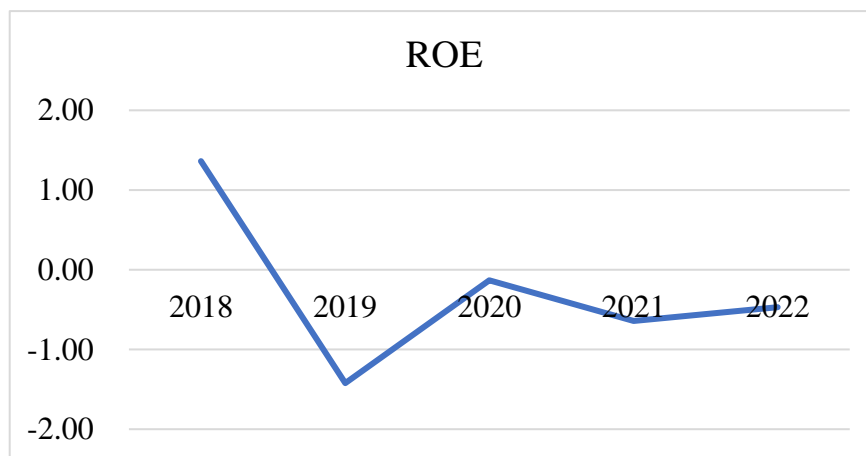|	2022	2021	2020	2019	2018
Net income	3283.4	4200.3	924.7	3594.6	4518
Average equity	-7006.6	-6556.95	-7015.2	-2527.6	3316.4
ROE	-0.47	-0.64	-0.13	-1.42	1.36

Figure 2: Changes of ROE from 2018 to 2022.

According to the table 4 and figure 2, in analyzing Starbucks' ROE over the past five years, it can observe an interesting phenomenon: while the company's ROE has been on an upward trend over the past four years, it has significantly decreased compared to 2018, even reaching negative values [2]. Through data analysis related to ROE, we can see that the main factor causing this phenomenon is the negative net assets or capital, which is assets minus liabilities. Starbucks has been experiencing a "negative net assets" problem in recent years. However, when we consider some of Starbucks' recent business policies, a negative ROE does not necessarily mean that Starbucks is a bad or unprofitable company. During the joint venture period, Starbucks embarked on a frenzy of expansion in East China. Combined with the analysis of some other people at the time, we can conclude that Starbucks' huge debt was mainly caused by its expansion policy and dividend payments, which indicates that Starbucks is continuing to grow, which is also one of the reasons for its success [4]. However, the consecutive negative ROEs are not a good sign. Coupled with the declining trend of ROAs, this may cause Starbucks investors to lose confidence. Therefore, Starbucks should take measures to control its debt and increase its revenue in the future, otherwise this high-risk business model could easily lead to problems.

In general, Starbucks' profitability in recent years has declined due to factors such as the pandemic and expansion policies. In the following sections, the paper will analyze each factor and identify the reasons for the fluctuations.

4.   Calculation of the Efficiency

Efficiency Calculation of Starbucks.

As we previously introduced, in this section, we will mainly calculate Starbucks' efficiency using three data points.

4.1. Assets Turnover

Assets turnover is used to measure the efficiency of a company's assets, which is the ratio of a company's sales revenue to its total assets.

Table 5: Assets turnover in the 5 years.

	2022	2021	2020	2019	2018
Sales	32250.3	29060.6	23518	26508.6	24719.5
Average total assets	29685.5	30383.55	24297.05	21688	19261
Assets turnover	1.09	0.96	0.97	1.22	1.28

According to table 5, Starbucks' asset turnover ratio has performed well overall in the past five years [2]. Although there was a decline in asset turnover in 2018 and 2021, the peak in 2019 indicates that the company was able to use its assets more effectively at the appropriate time. In addition, Starbucks' sales have shown a trend of increasing year by year, indicating that the company is constantly expanding its business and increasing sales.

4.2. Accounts Receivable Turnover

This data can measure a company's ability to collect accounts receivable. Cash is very important in business operations, so being able to collect accounts receivable in a timely manner can ensure the safe development of the company.

Table 6: Accounts receivable turnover of Starbucks in 5 years.

	2022	2021	2020	2019	2018
Sales	32250.3	29060.6	23518	26508.6	24719.5
Average receivable	1057.75	911.7	881.3	786.15	781.75
Accounts receivable turnover	30.49	31.88	26.69	33.72	31.62

According to table 6, Starbucks' average accounts receivable turnover has fluctuated between 26.69 and 33.72 over the past five years, showing a relatively stable performance [2].

Starbucks' turnover ratio is as high as 30, which is a good sign. Overall, Starbucks' stable accounts receivable turnover over the past five years is a positive signal, demonstrating the company's strong financial management capabilities.

4.3. Inventory Turnover

Inventory turnover reflects the speed at which a company sells its inventory. A faster turnover indicates stronger management abilities and lower inventory costs, but it also requires a more complete, reliable, and efficient supply chain.

Table 7: Inventory turnover of Starbucks in the 5 years.

	2022	2021	2020	2019	2018
COGS	10317.4	8738.7	7694.9	8526.9	7930.7
Average Inventory	1890.25	1577.65	1540.4	1464.95	1382.25
Inventory Turnover	5.46	5.54	5.00	5.82	5.74

From the data in the table 7, we can see that Starbucks' inventory turnover rate is also stable and as high as around 5 [2]. Therefore, it can be inferred that Starbucks has good performance in managing inventory.

Overall, Starbucks has a good performance in terms of operating efficiency. They can make full use of their assets and have excellent management techniques. However, it is worth noting that in 2019, almost all the data showed a downward trend, which may have been due to the impact of the outbreak of the COVID-19 pandemic on global companies.

5. Dupont Analysis

In the following section, we will use DuPont analysis to discuss the decomposition of ROA and ROE, and discuss specific factors that impact Starbucks.

5.1. Breakdown of ROA

When we further analyze ROA, we typically break it down into two components: profit margin and assets turnover, which represent the profitability of products and the efficiency of using assets, respectively, in their impact on ROA.

Table 8: Breakdown of ROA of Starbucks.

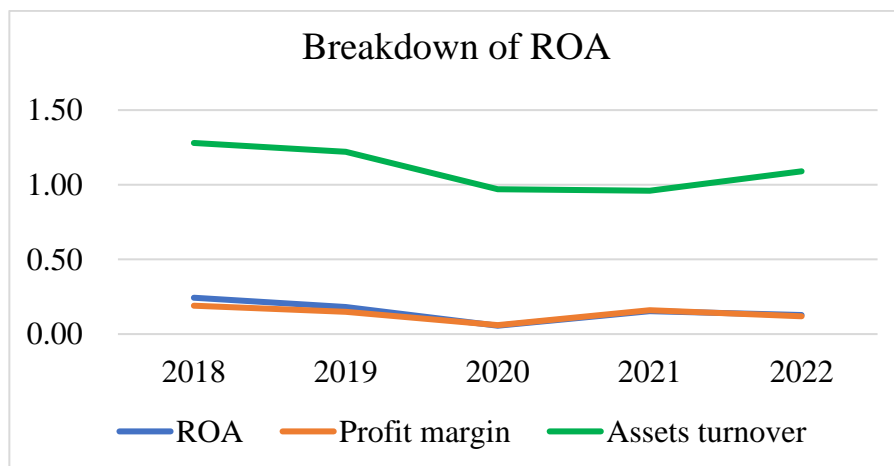|	2018	2019	2020	2021	2022
ROA	0.24	0.18	0.06	0.15	0.13
Profit margin	0.19	0.15	0.06	0.16	0.12
Assets turnover	1.28	1.22	0.97	0.96	1.09

Figure 3: Changes of ROA and various relative elements.

As seen from the table 8 and figure 3, the decline in Starbucks' ROA is jointly caused by the decrease in assets turnover and profit margin [2]. The decrease in assets turnover has been analyzed earlier, but it is noteworthy that Starbucks' profit margin has also declined. Given the current market situation, this is reasonable. China is a big market for Starbucks, but in recent years, more and more competitors have emerged in the Chinese market, such as Luckin Coffee. In the more than 20 years since Starbucks entered China, coffee consumption in China has slowly risen, and now the coffee market has become a high-growth market, with many competitors vying for a share of the market. Among them, Luckin Coffee has emerged as the most aggressive player. Its continuous development of new products and the sale of coconut latte by the billions have dealt a heavy blow to Starbucks [5]. Starbucks positions itself as a high-end coffee brand, while its competitors sell at lower prices. Therefore, if Starbucks does not lower its profit margin, it will lose customers.

5.2. Breakdown of ROE

In the Dupont analysis, we usually breakdown the ROE into four parts, leverage ratio, assets turnover, profit margin, debt burden.

Table 9: Breakdown of ROE of Starbucks.

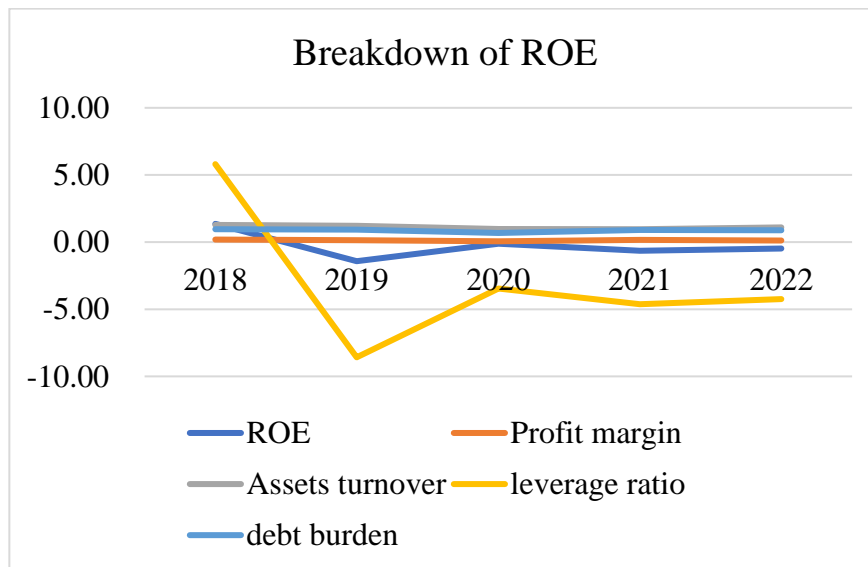|	2018	2019	2020	2021	2022
ROE	1.36	-1.42	-0.13	-0.64	-0.47
Profit margin	0.19	0.15	0.06	0.16	0.12
Assets turnover	1.28	1.22	0.97	0.96	1.09
leverage ratio	5.81	-8.58	-3.46	-4.63	-4.24
debt burden	0.96	0.92	0.68	0.9	0.87

Figure 4: Changes of ROE and various relative elements.

According to table 9 and figure 4, it can be seen that leverage ratio has been the biggest factor affecting ROE, and Starbucks has had an excessively high leverage ratio since 2018, even reaching negative values [2]. From previous analysis, we can infer that Starbucks' expansion policy has left it over-leveraged, and while expansion is a sign of business growth, an excessive leverage ratio

increases Starbucks' liquidity risk. Therefore, Starbucks should reduce its debt in the future, which means slowing down its expansion speed.

6. Risk Analysis and Future Development

According to the analysis in the paper, there are four main risks for Starbucks now:

6.1. Negative Net Assets

The explanation for this question has already been provided in the above analysis, but there is no doubt that it is the most important factor to consider, as investors may hesitate and have doubts when they see negative capital on financial reports when deciding whether to invest. Although Starbucks is constantly expanding, the market environment should be considered to determine whether it is worth continuing to expand. Therefore, in order for the company to develop sustainably and safely, Starbucks should first focus on improving its ROA and ROE.

6.2. Effect of the COVID-19 on the Market

Starbucks' financial report for the second quarter of its fiscal year 2022, announced on May 4, showed that same-store sales in Starbucks China fell 23% and same-store transactions fell 20%, resulting in a single-quarter revenue of US$740 million in China, down 14% year-on-year. China is an important market for Starbucks, but the impact of the COVID-19 has forced many locations to close or switch to online sales, which has had a huge impact on Starbucks' turnover in the country, which has declined significantly. In this environment, the advantages that Starbucks had in its brick-and-mortar shops will no longer be apparent. The pandemic has forced Starbucks to change its store layouts, introduce contactless payments, limit in-store seating, and introduce new takeaway options for its customers. Starbucks' revenue has been impacted by the pandemic, with sales declining due to the closure of stores and lower footfall in its stores that remain open [6]. So, how to change the sales model or management style to adapt to this situation is the main challenge in the Chinese market today, and we should take this into consideration and treat it as a key risk.

6.3. The Supply Chain

Starbucks owes a great deal of its success to its supply chain. Starbucks' supply chain is a key component of its competitive advantage, which allows the company to offer high-quality coffee products and maintain customer loyalty [7]. However, with the emergence of competitors, Starbucks must constantly seek better and more sophisticated supply chain systems in order to maintain its unique advantage in the fiercely competitive market. In this era of data sharing, this undoubtedly requires Starbucks to update its management system more quickly.

6.4. Price of the Product

Starbucks has successfully created a premium brand image for its products, which allows it to charge higher prices and enjoy higher profit margins than its competitors [8]. One of the reasons for Starbucks' success is its higher profit margin, but the high-end positioning means higher prices. With the emergence of competitors offering coffee with the same taste at lower prices, Starbucks' profit margin has to decrease. Starbucks' main competitors, such as Luckin, mainly offer lower-priced coffee, so the main challenge is to keep prices stable and acceptable in such circumstances, otherwise they may lose out on the market. So, the price is also a key risk for Starbucks. The decline in profit margin for Starbucks has resulted in a decrease in ROA and ROE. Therefore, in the future, Starbucks should find ways to increase its profit margin, such as reducing costs or other expenses. According

to recent financial reports, Starbucks has experienced a downward trend in its profit margin, which has directly led to a decrease in its ROA and ROE. Therefore, in order to improve the company's performance, Starbucks needs to find ways to increase its profit margin, such as reducing costs or other expenses.

7. Conclusion

As a globally popular coffee supplier, Starbucks has encountered some operational issues in its financial reports in recent years, despite having a strong management system. Factors such as the business environment and competition have contributed to this decline. In order to improve its performance, Starbucks should reduce its liabilities, increase asset utilization, and improve product profit margins. This can be achieved through the introduction of new products and the development of new business models.

This paper has limitations in its analysis of Starbucks' financial reports, as it overlooks the impact of its subsidiaries and tax shields. Further precision can be achieved by examining specific data.

In the future, additional research can conduct a horizontal comparison between Starbucks and its competitors, in order to identify the problems that Starbucks is currently facing with greater clarity.

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