

A Financial Analysis and Valuation of Pepsi

Zhiyan Xu

Singapore Institute of Management, 599491, Singapore

z xu029@mymail.sim.edu.sg

Abstract. PepsiCo Inc is one of the most famous beverage and food companies in the world, having several departments and a vast market around the world. This report will illustrate the company strategy by analyzing the financial reports and ratios of Pepsi. This essay contains four parts. The first parts will analyze the characteristics of the beverage and food industry to better understand the Pepsi's industry development by using the Porter's Five Forces Model, Value Chain Model and SWOT. The second part will focus on the financial reports of Pepsi, using common-size statements analysis and several financial ratios to tell the financial structure and condition of Pepsi, from which it may understand the future development directions and strategies of Pepsi. The third part will discuss the goodwill of this company to focus on the change of the strategy through the acts of acquisition. The last part will the revenue, and make a forecast of the revenue of this company to see the future development potential.

Keywords: Financial Valuation, SWOT Analysis, Strategic Forecast.

1. Introduction

There is no doubt that Pepsi is a very successful multinational company. It has a wide range of consumer groups and high brand recognition, studying it can understand the operation model and successful experience of large multinational beverage and food companies. As of 2023, Pepsi has a market share of 8.3% in the US carbonated beverage market and is ranked 91st in the BrandZ Top 100 Most Valuable Global Brands 2023.

In addition to the core Pepsi beverage business, PepsiCo also covers a number of business segments such as food, beverage and health industries, with a high degree of business diversification and many categories involved. It's worth noting: Pepsi has a strong track record of product innovation, constantly introducing new flavors, packaging and product formats, such as sugar-free versions of the drink, Pepsi with nitrogen, and more. As a listed company, PepsiCo has shown strong stability and growth in revenue, profits, assets and other aspects. The recent income situation is good. In 2023, PepsiCo's net revenue is about 91.5 billion US dollars, an organic growth rate of 9.5%, and the company's three-year compound annual organic growth rate reaches 11% [1]. By business segment, organic revenue in the food business increased 10%, and organic revenue in the beverage business increased 8%.

2. Industry & Firm Analysis

2.1. Porter's Five Forces

Threat of New Entrants. Economies of scale and Capital Requirements: The threat of new entrants in the beverage and snack industry is relatively low due to high barriers to entry, because of the huge size and market share of Pepsi in the market, the economies of scale is obvious, including significant capital investment, brand recognition, and distribution networks [2]. Pepsi is a famous big business company with larger volumes have a clear cost advantage over small firms, capital requirements are also relatively high. which makes it difficult for many new companies to grow into the same size as Pepsi in a short period of time. So the threat of new entrants is small [3].

Bargaining Power of Suppliers. Suppliers switching costs: The bargaining power of suppliers is relatively low for Pepsi, given its large size and global presence. Pepsi has the ability to negotiate prices and terms with suppliers due to its substantial purchasing power. What's more, there are a huge

number of suppliers of the raw materials around the world, so it's easy for Pepsi to change their supplier with low cost. In addition, PepsiCo's global distribution is dense, forming a scale advantage, and its strong bargaining power has also reduced costs to some extent [4]. PepsiCo has established solid cooperative relationships with suppliers to form a complete supply chain, which has strong bargaining power in the industry.

Bargaining Power of Buyers. Low Customer switching costs: The bargaining power of buyers is moderate to high, especially in retail markets where consumers have multiple options, which means low customer switching costs [5]. However, Pepsi's brand recognition and loyalty programs help retain customers and mitigate this power.

Threat of Substitutes. "Closeness" of substitute: Although Pepsi is the leader in the leisure snacks industry, the product itself is easier to produce, causing so many flat-substitute products springing up in the market, and its products belong to PMCG, with the characteristics of high likelihood of being affected by promotion and personal sensory influence, which means Pepsi's products are highly likely to be replaced [6].

Performance/Price Ratio of Substitute. However, its products choose better raw materials than other alternative products, and the production method is healthier, so customers will be more inclined to Pepsi products under the same conditions. In a word, Pepsi's strong brand loyalty and diverse product portfolio help mitigate this threat.

Industry Rivalry. Competition on price: Because most of Pepsi's products are PMCG, with low customer loyalty, serious product homogenization and small utility gap, so it's difficult for Pepsi to stand out from other products by the product itself only, so the price competition is fierce.

Economic scale of operation: but Pepsi has an absolute advantage in terms of scale and operating results. In the market, the main threats to Pepsi are — Coca-Cola and Nestle.

2.2. SWOT

Strengths. Customer Loyalty: PepsiCo has a very dependable consumer base. All its soft drinks have a signature taste/flavour and that's why their customers do not choose to switch brands. They've become a completely strong brand in terms of the juice and bottled water drinks, Rich resources and many innovative points of Pepsi which means can satisfy different consumer needs.

Strong distribution and Supply Chain: Pepsi has been one of the top-promoting company with manufacturers and covering the global market. It has a global presence in more than 200 countries providing them with a very good distribution network. It has one of the exceptional supply chain networks in the world, making the goods available at some stage in the world.

Investment in advertising and promotion:

This company has been working with prominent personalities as part of their marketing campaigns that aim to create a strong emotional connection with their target audience. For example, football is one of the biggest draws in the world, especially the Super Bowl and the UEFA Champions League. Pepsi has been sponsoring the events. This all helped PepsiCo build a strong and recognizable brand image, which is a great advantage in the highly competitive beverage industry. Pepsi has been sponsoring these events.

Weaknesses. Brand Ambassadors: Wrong feedback or sick overall performance by well-known personalities/celebrities, can in turn damage PepsiCo's brand image as they are the face of the company. Over-dependence on celebrities for endorsements is huge risk.

A mistake or poor performance by a brand ambassador can have a negative impact on the company's image, thus providing a space for the competitors to develop.

Products perceived as unhealthy: Most of the soft drinks of PepsiCo are perceived as unhealthy. As customers increasingly are choosing healthier options, Pepsi and its competitors are losing customers.

Opportunities. Research and development: Pepsi now focus more on buyers' health. The Public environmental and health awareness is increasing, also focus on packaging recycling issues.

Globalization of economic markets: Nowadays, Population growth and economic growth, market demand growth. Globalization development, international cooperation further expands the market. Pepsi Constantly exploring more markets. Now Pepsi has a market in more than 200 countries and regions around the world Brand awareness is extremely high.

Threats. Changing Government Regulations: Policy adjustments affect corporate profits. Much like any other industry, the food and beverage industry is subject to government regulations. These regulations often impact the way a business conducts its operations but are generally designed to protect the public. However, they can pose a significant threat to PepsiCo.

Environmental and health issues: Environmental and health issues continue to receive attention, but it's also a opportunity. They try to recyclable packaging and healthy eating, Pay attention to green energy saving and also continuously introduce new products.

2.3. Cost and Differentiation Strategies

Pepsi uses cost leadership as its primary competitive strategy. This strategy focuses on cost minimization as a way to improve the company's financial performance and overall competitiveness. For example, to compete against Coca-Cola products, PepsiCo offers competitive prices based on low operating costs achieved through this generic competitive strategy. Thus, low costs provide capabilities for the company's competitive advantages in the global market for snack foods and drinks.

In a word, Strong brand, huge market scale with the advantage of economics of sales.

help them stand out from other competitors.

2.4. Value Chain

Inbound Logistics. Pepsi has a well-established supply chain network, ensuring efficient procurement and distribution of raw materials. It leverages technology to optimize inventory management and reduce costs [7].

Operations: Pepsi's manufacturing processes are highly automated and efficient, ensuring high-quality products at competitive prices. The company continuously invests in research and development to innovate and improve its product portfolio.

Outbound Logistics. Pepsi has a robust distribution network, ensuring timely delivery of products to retail outlets and consumers. It uses advanced logistics technology to track and manage inventory and shipments.

Marketing and Sales: Pepsi's brand image is known for being modern and young. Pepsi has focused on hiring ambassadors and celebrity endorsements to connect with the younger generation. It uses creative ideas, unique packaging, and marketing strategies to capture the interest of young people [8].

Service. If customers encounter any difficulties, problems, seek help or feedback on complaints when buying Pepsi product or using Pepsi services, they can call Pepsi's help hotline directly to get help and support. PepsiCo is very good handling of this aspect because they always listen to the customer's suggestions to correct and products update.

3. Ratio Analysis

For the ratio analysis, by analyzing PepsiCo's financial statements from 2021 to 2023, a general conclusion can be drawn: PepsiCo's operational status has been good over the past three years, with a positive profit trend and good prospects for expansion. But the short-term liquidity ratios are weak, indicating relatively weak short-term debt-paying ability.

3.1. Operating Turnover Ratio

The turnover ratio has two key points to note. The first is that the accounts receivable turnover ratio is bigger than the accounts payable turnover ratio. PepsiCo's AR in 2023 was 8.5, meaning the company collects its average accounts receivable balance 8.5 times a year. The company has a fast turnover of funds, indicating good liquidity. The AP is 1.7, which suggests the company has a high

credit rating with its suppliers and good management of cash flow. These ratio figures indicate that the speed of cash inflow is greater than the outflow, leading to a comfortable cash flow situation and a strong ability to generate cash, making it suitable for expansion.

3.2. Inventory Turnover Ratio

The inventory turnover ratio of PepsiCo in 2021 was 8.5, above the average. It for 2023 and 2022 were 7.85 and 7.77 respectively, which are considered high within the average range, indicating that PepsiCo's inventory turnover was fast from 2022 to 2023, with a low risk of inventory accumulation. However, data like that of 2021 is too high, suggesting that inventory reserves were insufficient that year, leading to a risk of stockouts. The reason for this is that in 2021, a global COVID-19 crisis impacted PepsiCo's upstream production chain significantly, and in 2022, after the pandemic eased, the figures returned to a normal and advantageous level.

3.3. Short-Term Liquidity Ratios

When analyzing the short-term liquidity ratios of PepsiCo, the conclusion is not impressive. Low current and quick ratios indicate that PepsiCo has a weak ability to pay off short-term debts. PepsiCo's current ratio was only 85% in 2023, and the quick ratio was even lower at 66%. This suggests that PepsiCo has more liabilities than assets and faces the risk of insufficient short-term funds, potentially needing to use long-term assets to pay off short-term liabilities. However, the operating cash flow to current liabilities ratio is favorable, at 42.47% for 2023, and has been around 40% for the years 2021 to 2023, indicating that PepsiCo has a strong ability to pay off the total debt.

3.4. Long-Term Solvency

Although the short-term liquidity is not optimistic, PepsiCo has shown strong long-term solvency, with an interest coverage ratio reaching a high of 12.66 in 2023, indicating that its interest payments are well secured and the risk of default is low. Coupled with the previous turnover ratios, PepsiCo has demonstrated good credit in front of suppliers and consumers, which gives it a significant advantage in expanding the company and attracting investments.

3.5. Leverage and Return on Shareholders' Equity

In the sections on Leverage and Return on shareholders' equity, three indicators stand out in particular. They are the long-term debt to shareholders' equity ratio, equity multiplier, and the liabilities to shareholders' equity ratio.

From 2021 to 2023, PepsiCo's long-term debt ratio are decreasing, with a 7.46% decrease from 2021 to 2022 and a 2.28% decrease from 2022 to 2023 [9]. This reflects the company's increasing profitability and growing cash flow but there are also potential risks. With the rise in social environmental awareness, PepsiCo faces some environmental issues, some of which have been taken to court, negatively impacting the company and potentially affecting its long-term debt repayment ability.

The ratio of liabilities to shareholders' equity has fluctuated slightly over the past three years, with a decrease of 8.1% from 2021 to 2022 and an increase of 1.27% from 2022 to 2023, but it has generally remained stable around 4. This indicates that the company has a strong ability to expand its operations and use fully of shareholders' equity. Combining this with previous analysis, PepsiCo has too much debt, which can affect its ability to repay debts, has a significant financial leverage effect, and a high financial risk. If the company's profitability decreases, it'll face the risk of debt default.

The equity multiplier has fluctuated over the past three years, with a decrease of 6.69% in 2022 and an increase of 1.03% in 2023, but it has remained generally stable at around 5, reflecting PepsiCo's relatively high debt-to-equity ratio. PepsiCo faces significant financial risks, but leveraging its strong market position, the company can use a substantial amount of funds from upstream and downstream sources for operations. With robust competitiveness and no concerns about interest expenses eroding profits, PepsiCo can employ a higher EM, thereby achieving a higher return on

equity and enjoying a higher valuation. A high EM has a dual nature, it amplifies profitability but also increases risk.

4. Revenue Analysis

4.1. Revenue Recognition

According to the annual report for year ending December 30, 2023 of PepsiCo, the performance obligation of Pepsi is the distribution and sales of beverage and convenient food products, and their primary performance obligation is satisfied when the shipment or delivery of products to the customers is finished, which is also when control rights is transferred. They recognize revenue when the performance obligation is satisfied. Some discount policies and recall policy are also shown clear in the financial statement, So the revenue recognition of Pepsi isn't extremely complex. Due to the products are easy to measure and distinguish, there are almost no ambiguity in determining the transaction price and little room for profit manipulation.

4.2. Revenue Forecast

Forecast Results. This research chose the Compound Annual Growth Rate to estimate the revenue in the future, and find the total revenue from 2020 to 2023 of Pepsi from NASDAQ website, computing the CAGR of Pepsi with the formula (see Table 1). The calculation result is about 9%, which means Pepsi can be seen as a well-performed company with good growth rate. The revenue forecast results in the next five year are shown as in the Table 2 below.

Table 1. Total revenue of Pepsi from 2020 to 2023.

Year	2020	2021	2022	2023	CAGR
Revenue(million)	70372	79474	86392	91471	9.13%

Table 2. Revenue forecast in the next five years.

Year	2023	2024	2025	2026	2027	2028
Revenue (million)	91471	99703.39	108676.69	118457.59	129118.78	140739.47

Till 2028, under the CAGR of 9%, Pepsi's revenue will continue to grow steadily and is likely to reach \$1407 billion. Next this research wants to prove this CAGR is reasonable.

Industry Growth. In terms of the whole industry, according to some relative data, previous studies have noticed that the global average annual growth rate of the whole food and beverage manufacturing industry is 3% to 4%, and is expected to maintain stable growth in the next few years [10]. Global food revenue maintained a growth rate of 6%, with China, the United States and India being the three major markets for the food industry. This is mainly due to consumers' pursuit of the quality, taste and nutritional value of food and beverages, as well as the continuous expansion of emerging markets. As the global population grows and urbanization accelerates, the consumer demand for food and beverages continues to increase, driving the steady growth of the industry. So the future development of this industry is quite stable and promising.

Macroscopic Factors. Meanwhile, this study notice the macroscopic political and economic environment may affects the revenue in the future, such as the fluctuation of the exchange rate, inflation, the conflicts in some regions like the Middle East and Russia-Ukraine conflicts.

From the historical financial figures, it is quite clear that Pepsi can do well in dealing with these conflicts caused by the fluctuation of the exchange rate, inflation. For example, PepsiCo took advantage of inflation in 2022 to raise prices while observing that consumer demand for the company's products has remained steady, which means Pepsi has huge bargaining power of buyer. Russia-Ukraine conflicts did affects Pepsi's revenue. Pepsi's market share in Russia is around 22%. Since Pepsi announced its withdrawal from the Russian market, it has written off nearly 5 billion US dollars of losses in this conflict. In spite of the reduction in revenue, Pepsi continues to develop the

emerging market, making its revenue keep stable. In conclusion, Pepsi's overall development environment is stable.

Segments Analysis. There are seven segments in this company, They are Frito-Lay North America, Quaker Foods North America, Latin America Foods, Americas Beverages, Europe, Asia, the Middle East and Africa, most of which are experiencing a steady upward trend in revenue, while a few are facing fluctuations and decreases.

Pepsi's main revenue comes from North America, where Pepsi Co beverages are the main driver of revenue. Also, Europe, market has the largest revenue growth over a three-year historical period. Although the proportion of revenue in some departments is small and the revenue has declined, its operating profit has increased, like the AMESA (Africa, middle east and South Asia), which also indicates that the cost control of these department has done a good job. Overall, the revenue of all departments of Pepsi is very stable.

Recently, Pepsi has released its financial report of the third quarter. In the third quarter of this year, Pepsi's global market net revenue was \$23.3 billion, and the Organic revenue growth rate was 1.3%, which has continued to slow so far. In the first quarter of this year, Pepsi's organic revenue grew 2.7% and 1.9% in the second quarter, meaning a poor operation this quarter. In January, 2024, Quaker brand products were recalled due to possible salmonella contamination, according to the Canadian Food Inspection Agency website. Shortly after, the Canadian Food Inspection Agency recalled several frozen dessert and yogurt bowls of Quaker brand products.

Some reports believe that Quaker's product recall is the key reason for the company's slowing organic revenue growth. Quaker Food North America is one of the segments of Pepsi, and sells healthy food like the oats. Quaker Foods North America saw the biggest revenue decline in the third quarter, decreasing 13% from a year earlier, mainly because of the loss of sales due to the products recall.

Other Factors. As what we've discussed in the Goodwill, PepsiCo has changed its business focus to acquired lots of healthy food companies and expand its business lines and emerging market. Meanwhile, Pepsi also pay attention to its EGS development, launching lots of green production program and emission reduction plan. All of this might be the good signals of Pepsi's excellent operating.

5. Conclusion

All in all, Pepsi's huge market share and large user base help it better establish itself in this market, and its huge volume brings it higher bargaining power and corresponding cost advantages. In addition, the industry's high barriers to entry reduce the threat posed by new entrants. But at the same time, we cannot ignore the potential risks in the market: the unique attribute of its products belonging to PMCG leads to the low stability of its customers, which greatly increases the risk of its replacement. And Pepsi's product homogeneity is serious, the degree of differentiation is low, which leads to its price competition is very fierce.

In addition, through the analysis of relevant financial statements: PepsiCo has had good operating conditions in the past three years, positive profit trend and good expansion prospects. However, the short-term liquidity ratio is weak, and its short-term solvency is relatively weak. In recent years, Pepsi has also actively laid out in the health field, acquired health food companies for many times, and actively promoted the transformation and upgrading of enterprises to the health field.

In the end, based on Pepsi's 2020-2023 revenue and related formulas, the CAGR is 9%, and it is expected that by 2028, Pepsi's revenue will continue to grow steadily, potentially reaching \$140.7 billion. the industry environment is relatively stable for Pepsi's development, and Pepsi has the flexible and suitable development strategy for the company to deal with the challenges and risks of loss in the future, and the forecast of CAGR, 9%, is reasonable.

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