Proceedings of the 2nd International Conference on Financial Technology and Business Analysis
DOI: 10.54254/2754-1169/60/20231170

Monopolistic Behavior Analysis and Anti-Monopoly Strategy Research Based on Cola Drinks Industry

--Take the Comparative Analysis of Coca-Cola and Pepsi as an Example

Zhiyuan Chen[1,*], Chenjingyu Liu[2,a,*], Wenyi Xia[3], and Zilong Wang[4]

[1]Santa Monica College, Los Angeles, 90405, United State
[2]College of Alameda, Oakland, CA, 94606, United State
[3]Shanghai concord bilingual school, Shanghai, 200030, China
[4]Shenghua Zizhu Academy, Shanghai, 201109, China
a. 30033874@cc.peralta.edu
**corresponding author*

Abstract: This research explores monopolistic behavior and anti-monopoly strategies within the soft drinks industry, focusing on a comparative analysis of Coca-Cola and Pepsi. The study highlights how duopoly dynamics impact pricing and competitiveness in the market. It delves into historical competition between these industry giants, particularly during World War II, shedding light on Coca-Cola's strategic dominance. The paper emphasizes the influence of brand promotion on pricing, revealing the potential for higher costs in the industry. Additionally, it underscores the significance of examining the effects of duopoly on cola drink prices for antitrust considerations. The research offers practical suggestions to address these challenges. Recommendations include fostering product innovation, building strong brands, establishing strategic partnerships, implementing pricing strategies, and emphasizing cost control. These measures aim to enhance overall industry pricing and competitiveness. Moreover, the study addresses the difficulties newcomers face entering the soft drinks industry and suggests policy incentives, collaborative efforts, engagement with industry associations, and regional focus as solutions to mitigate barriers to entry. Lastly, the research advocates for regulatory oversight, competition promotion, consumer education, price transparency, diversified supply chains, and support for collaboration and innovation to safeguard consumer interests. These measures aim to maintain a fair and diverse soft drinks market.

Keywords: monopolistic behavior, anti-monopoly strategy, cola drinks industry

1. Introduction

1.1. Research Background

In the duopoly market, there are only two companies. When a company adjusts its output and price, it will definitely cause changes in the market. That is, it will affect the sales of its opponents, which will cause the opponents' reactions and affect the company that made the adjustments first [1]. The

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price of companies under a duopoly is mainly to reach an agreement or tacit agreement with each other to formulate a common price, limit output, or divide the market [1]. The pricing of products requires the two companies to consider their comprehensive capacity, competitor strength, market conditions, marginal costs, and other factors. If both companies have the same information, this situation is called a duopoly game with symmetric information, then the product prices of these two companies will be very close.

In 1886, pharmacist John Pemberton invented the original cola drink. The drink was sold in pharmacies then and claimed to relieve headaches. But because of its unique flavor, it quickly became a popular product. In 1891, Coca-Cola passed through the hands of several buyers, eventually being bought by an American business tycoon, Asa Candler. After that, Coca-Cola developed more rapidly, and Coca-Cola soon became a popular drink all over the United States. The success of Coca-Cola has attracted many imitators, but none of these imitators can surpass Coca-Cola, and the same is true of the original Pepsi. In 1898, Pepsi was founded. At first, Coca-Cola did not care about this new brand. They thought that Pepsi, like many competitors, would slowly disappear in the long river of history. The fact is just as Coca-Cola had predicted. In 1914, when the First World War broke out, the United States imposed strict controls on daily necessities such as alcohol and sugar. Cola, a high-sugar drink, was also sold on a limited basis. This sudden situation is a disaster for Pepsi, which has a weak foundation. In the absence of sales channels and sharply reduced profits, the desperate Pepsi can only be forced to declare bankruptcy. In the 1930s, Pepsi-Cola was bought by a businessman, Charles Guth. 1929, the Wall Street crash and the Great Depression left many Americans homeless. Against this backdrop, a five-cent bottle of Coca-Cola is unaffordable. Pepsi realized this was a once-in-a-lifetime opportunity and jumped at it. Pepsi decided to price its product at half the price of Coca-Cola, meaning that people could buy twice as much cola for the same amount. This strategy allowed Pepsi to catch up with Coca-Cola in market share. What decided Coca-Cola's top spot in the cola industry was during World War II when Coca-Cola and Pepsi had been competing for decades. Coca-Cola proposed to the US government that Coke cannot be rationed. As important as bullets and food, Coca-Cola is a necessity for soldiers. In the end, the US government agreed to Coca-Cola's request, and Coca-Cola has since become an essential supply for the US military. Even after the end of World War II, Coca-Cola's market share remained high. This strategy of Coca-Cola solved the crisis brought by Pepsi before and consolidated its dominance in the cola industry. After that, Pepsi began to transform its customer base, focusing on attracting young people. Pepsi associates their brand with pop. Pepsi drafted in some of the biggest names in pop, such as David Bowie and Tina Turner [2]. Today, the Cola War has lasted for more than 130 years. During the century, Coca-Cola and Pepsi have won and lost each other, but the competition will continue as the times change. People are not just buying a fizzy drink but a brand and a whole lifestyle with cola drinks [2].

In the cola industry, because Coca-Cola and Pepsi occupy the vast majority of the market share, and both know each other's cost, technology, product, price, and other factors, it is in line with the duopoly game under symmetrical information. Therefore, the prices of these two brands of cola drinks are the same in most places. When one company raises prices since its products and competitors' products have greater homogeneity and there is no cost difference, the party that raises prices will lose a large amount of market share, leading to price corrections. When one company lowers its price, the competing companies will also lower their price, which not only fails to gain more market share but also damages the original profits of both companies. This is why the prices of Coca-Cola and Pepsi are almost the same in the cola drink market.

In a duopoly market, the price of a product in the market is often determined by two oligopoly companies, and the oligopoly company always sets prices to maximize its profits. Hence, the product's price is often several times higher than its cost [1]. Moreover, because Coca-Cola and Pepsi want to increase their market share as much as possible, they spend a lot of money on brand promotion.

DOI: 10.54254/2754-1169/60/20231170

The production cost of cola drinks is only a few cents, and most of the cola company's budget is spent on promoting its brand [2]. This also means that the price of cola drinks can be much lower.

Most papers study the respective marketing methods and customer groups of Coca-Cola and Pepsi. In other words, these papers study the reasons for forming duopoly markets. However, few papers study the impact of the duopoly market of Coca-Cola and Pepsi in the cola industry on the price of cola drinks. The discussion of these issues is of great significance to the antitrust of the cola drinks industry.

1.2. Research Framework

His paper will take Coca-Cola and Pepsi as examples. First, introduce the position of these two companies in the beverage industry and analyze the similarities and differences in their marketing strategies. Second, this paper will explain the problems that duopoly markets can cause. Third, this paper will give some suggestions to solve these problems.

2. Description of Pepsi and Coca-Cola

The two duopoly companies in the cola industry, Pepsi-cola, and Coca-Cola, have been competing against each other since 1975, when Pepsi-cola announced the "Pepsi Challenge". Such competition has been going on until the present day and is now known as the "Cola War"

2.1. Pepsi-Cola

2.1.1. History of Pepsi-Cola

PepsiCo, Inc was officially established in 1965 when a merger happened between the Pepsi cola company and Frito-lay, Inc. [3]. PepsiCo, Inc was officially established in 1965 when a merger happened between the Pepsi cola company and Frito-lay, Inc. [4]. In 2022, its total revenue was \$86.392 billion, an 8.7% increase compared to the total revenue of \$79.474 in 2021. For the year 2023, the increase in revenue was much more significant, with already \$90.135 billion until June 30 [5].

2.1.2. Bankruptcy Crisis

This is due to Caleb Bradham's gamble on the sugar price that was extraordinarily unstable during World War I. He predicted that the sugar price could rise, but it turned out to be falling, leading to Caleb Bradham having a high amount of leftover sugar. This false decision resulted in Pepsi-Coal's bankruptcy in 1923 [4].

A new generation: The ad called the "Pepsi generation" in the late 1970s and early 80' acted as a turning point throughout the development of Pepsi. This advertisement was presented by Micheal Jackson, Tina Turner, and many other well-known stars targeting young drinkers as well as appealing to older consumers with a series of 'Pepsi challenges' [4].

Pepsi in the present day: Apart from the classic Pepsi cola invented by Caleb Bradham, Pepsi cola diversified its product to other choices like Diet Pepsi or other editions without caffeine to make their products more acceptable for consumers worldwide [4].

2.2. Coca-Cola

Coca-Cola, one of the world's leading beverage companies, has made significant progress in its development. With a history spanning over a century, Coca-Cola has continually adapted to changing consumer preferences and expanding global markets.

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Currently, Coca-Cola operates in over 200 countries and offers diverse products, including carbonated soft drinks, juices, bottled water, sports drinks, and ready-to-drink coffees. The company has also expanded its portfolio to include healthier options, such as low-sugar and zero-sugar beverages, to address growing concerns about health and wellness.

In recent years, Coca-Cola has focused on innovation and sustainability to maintain its competitive edge. The company has introduced new packaging designs focusing on environmental responsibility, aiming to collect and recycle a bottle or can for every one it sells by 2030. Furthermore, Coca-Cola has invested in research and development to create beverages that align with changing consumer preferences, including plant-based and functional drinks.

Its robust marketing strategies and partnerships support Coca-Cola's strong global presence. The brand continues to engage consumers through various advertising campaigns, sponsorships of major sporting events, and collaborations with popular influencers. These efforts have helped Coca-Cola maintain its prominent name in the beverage industry.

While Coca-Cola faces challenges such as increasing competition and evolving consumer demands, the company remains dedicated to refreshing the world and making a positive difference. Through ongoing innovations, strategic expansions, and commitment to sustainability, Coca-Cola continues to grow and adapt to the ever-changing market landscape.

3. The Comparison of Coca-Cola and Pepsi-Cola

3.1. The Difference in Marketing Methods

Although they are all monopoly companies in the soft drinks industry, there are great differences in the cola formula. The Coca-Cola Company is the pioneer of cola and has not disclosed the recipe for making Coca-Cola, which leads to the difference in the taste of cola. It also indirectly affects the marketing methods of the two companies.

First of all, in terms of products, the Coca-Cola company never changes the formula because he is the pioneer of Coke, and his popularity is due to his original Coke taste. Pepsi-Cola is different and will change the taste according to market demand [6].

Second, in terms of price, Pepsi lowers prices to attract consumers. The -Cola company did not use such means to attract customers [6]. According to personal observations in the supermarkets around me, the average price of Coca-Cola per milliliter is slightly higher than that of Pepsi-Cola per milliliter.

Third, brand positioning. Coca-Cola company advocates classic and eternity, so Coca-Cola's consumer strategy is a strategy for the general public. In contrast, Coca-Cola company advocates passion and possibility so that consumers will be positioned on young people. This is also reflected in product packaging and advertisements. Pepsi-Cola is more youthful and lively in packaging and advertisement design [6].

Fourth, channels. Coca-Cola's strategy is to accept all channels, and at the same time, there is only one person in charge of all channels in the same area, which is a strategy that emphasizes quantity. It is a strategy that emphasizes quality by focusing on the development of cities and fine-tuning the management of various channels simultaneously [6].

3.2. The Same Marketing Methods of the Coca-Cola Company and Pepsi-Cola Company

The two companies competed with each other in order to gain dominance in the world's carbonated beverage market, and they both took the same measures.

First, develop into overseas markets, and during the process of occupation, implement product localization strategies, adopt packaging designs tailored to local conditions according to different cultures, for example, in China, during the Spring Festival, whether it is Pepsi Cola or Coca Cola, the

DOI: 10.54254/2754-1169/60/20231170

packaging design The pattern will incorporate elements related to the Spring Festival. Not only that, in terms of advertising, both Coca-Cola Company and Pepsi Cola company will invite local celebrities as their local spokespersons [7].

Second, sponsorship activities. Both Coca-Cola and Pepsi-Cola have sponsored public welfare activities in various regions. At the same time, there have been cases of participating as sponsors in some music and sports events or activities. This behavior of Coca-Cola and Pepsi-Cola has brought a lot of fame and set up a good image.

Third, product diversification. Coca-Cola and Pepsi-Cola have their own beverage brands other than Coke, and these products give them more dominance in the world beverage market.

Fourth, cooperate with other companies. Coca-Cola and Pepsi-Cola promote their products by cooperating with other industrial companies to increase their market share.

3.3. The Problems Identified by the Duopoly of Pepsi-Cola Company and Coca-Cola Company in the Soft Drinks Market

First, it affects the overall price of enterprises in the soft drinks industry. As a small company, the average cost is high because of the small production scale, which makes product prices high. However, -Coca-Cola and Pepsi have a huge production scale. Hence, the average cost of products is low; as a result, the product price is low, so more people are willing to buy Coca-Cola and Pepsi products. In order to avoid poor sales of their products, emerging companies' products need to be reduced to encourage consumers to consume; as a result, profits will be reduced or even lost.

Second, it affects the difficulty of starting the soft drinks industry. As an emerging enterprise in the soft drinks industry, due to the high brand awareness of Coca-Cola and Pepsi Cola, and the same product has no advantage in price, the sales of products of emerging enterprises will be bleak, resulting in losses. Or lower margins while also making people feel intimidated about starting a soft drinks business. Therefore, the number of competing enterprises in the entire industry will decrease, which may destroy the competition order of enterprises in the soft drinks industry.

Third, it may affect the interests of consumers. Due to the huge scale of Coca-Cola and Pepsi company, they have the ability to acquire some small companies in the same industry, which may lead to only Pepsi and Coca-Cola operating in the entire beverage industry. At the same time, the companies have the possibility of an alliance, so the beverage market will be manipulated by Pepsi and Coca-Cola, thereby raising prices maliciously, so consumers need to have a higher ability to buy [8,9]. At the same time, they can buy fewer things at the same price and Reduce consumer choice.

4. Suggestions

4.1. Suggestion of Overall Price of Enterprises in the Soft Drinks Industry

4.1.1. Innovate the Products

In order to stand out in the competitive beverage industry, innovation is paramount. Start by conducting thorough market research to identify consumer preferences and gaps in the market. Experiment with unique flavors, packaging, or formulations that align with these preferences. Invest in a robust research and development (R&D) department that continually develops and tests new product ideas to support this innovation. Launch limited-time promotions and offer samples to gauge customer feedback, allowing the company to refine its offerings based on their responses.

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4.1.2. Build a Strong Brand

Building a strong brand is essential for a small beverage company to establish a lasting presence in the market. Begin by developing a compelling brand story that emphasizes the company's values, sustainability practices, and commitment to quality. Create a memorable logo and visual identity differentiating the company from larger competitors. Allocate resources to marketing campaigns that highlight the company brand's unique selling points and connect with consumers on a personal level. Use social media platforms to engage with the company's audience, share it's brand's journey, and build a loyal customer base.

4.1.3. Establish Strategic Partnerships

Collaboration with other local businesses can significantly boost the company's product's visibility and accessibility. Identify local businesses such as restaurants, cafes, or small grocery stores that align with the company's brand and target audience. Propose collaboration opportunities like co-branding events, exclusive menu items, or cross-promotions. Leverage their existing customer base to increase the company's product's reach. Maintaining open communication and cultivating mutually beneficial agreements with the company's partners is essential for lasting success.

4.1.4. Implement Pricing Strategies

A well-considered pricing strategy is crucial for both profitability and competitiveness. Begin by analyzing the company's production costs and determining its desired profit margins. Offer tiered pricing options, including premium products with unique features for those willing to pay a higher price. Create special promotions or bundles to attract cost-conscious consumers during peak seasons or events [10]. Keep a close eye on market trends and adjust the company's pricing strategy accordingly to remain competitive.

4.1.5. Focus on Cost Control and Continuous Improvement:

Efficient cost control and continuous improvement are the cornerstones of long-term success. Regularly review and optimize the company's supply chain for cost efficiency. Invest in technology and automation to streamline production and reduce labor costs. Implement waste reduction measures and eco-friendly practices to align with sustainability goals, which resonate with modern consumers. Lastly, maintain a strong feedback loop with the company's customers through surveys, reviews, and social media to identify areas for improvement and respond promptly to their needs.

4.2. Suggestion of the Difficulty of Getting Started in the Soft Drinks Industry.

4.2.1. Incentivize Entrepreneurship Through Favorable Policies

Governments can encourage new entrants into the beverage market by implementing favorable policies such as subsidies and tax incentives specifically tailored for startups. These incentives should be designed to ease the financial burden on small-scale businesses during their initial growth phases. For example, reduced tax rates or grants for research and development can be offered to stimulate innovation.

4.2.2. Foster Strategic Partnerships

Collaborating with other small food and beverage companies can be a mutually beneficial strategy. Establish partnerships to promote products or host co-branded events jointly. Such collaborative

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efforts pool resources and enhance market exposure through shared marketing efforts. By leveraging collective strengths, smaller players can effectively compete with industry giants.

4.2.3. Engage with Industry Associations

Joining industry associations within the soft drink sector provides small businesses with valuable networking opportunities and access to industry insights. Participating in these associations allows entrepreneurs to share experiences, gain support, and collectively advocate for policies that improve the industry's overall competitiveness. These associations often organize events and conferences where emerging companies can showcase their products to a wider audience.

4.2.4. Regional Expansion Focus

Concentrating efforts on specific regions or niche markets can be a strategic approach. By tailoring products to local tastes and cultural preferences, companies can better meet the needs of regional consumers. This localized strategy can also help establish a strong regional brand presence. For instance, a small beverage company might introduce unique flavors inspired by local ingredients or traditions to appeal to the target market's preferences.

4.3. Suggestion of the Consumers' Interests

4.3.1. Strengthen Regulatory Oversight

Enhancing regulatory oversight is essential to prevent anticompetitive practices. Governments should bolster anti-monopoly and antitrust regulations, empowering regulatory bodies to monitor the market actively. Swift legal action should be taken against unfair market manipulation, ensuring a level playing field for all.

4.3.2. Promote Competition

Fostering competition is vital for a healthy beverage industry. Governments can incentivize emerging companies by offering financial support, tax breaks, and access to incubators. Encouraging small business development creates a more diverse and competitive marketplace.

4.3.3. Educate Consumers

Consumer education is key to informed choices. Launch public campaigns that inform consumers about various brands' sustainability efforts and social responsibility. Transparent labeling and accessible information empower consumers to make conscious decisions.

4.3.4. Advocate Price Transparency

Championing price transparency ensures consumers have access to fair pricing information. Advocate for mandatory disclosure of pricing policies and changes by companies. Transparent pricing enables consumers to make well-informed and cost-effective choices.

4.3.5. Diversify Supply Chains:

Reducing dependence on a few suppliers is crucial to prevent monopolistic practices. Encourage diversification of supply chains by supporting multiple sources and suppliers. This mitigates the risk of price manipulation and guarantees consumers a wider array of choices.

4.3.6. Support Collaboration and Innovation

Promote collaboration between stakeholders and encourage innovation. Foster the formation of consumer cooperatives and collaborative initiatives, enabling collective purchasing power. Additionally, it supports innovation by offering grants, subsidies, and research incentives to companies that develop unique and healthier beverage alternatives. Encourage public-private partnerships to develop strategies promoting competition, consumer choice, and responsible corporate behavior.

5. Conclusion

Coca-Cola and Pepsi-Cola are two major players in the global beverage industry, particularly in the cola segment. The competition between the two brands has been fierce and long-standing, with both companies striving to capture a larger market share and win over consumers.

In terms of market presence, Coca-Cola has a broader global reach and a longer history. The company's red and white logo is recognized worldwide and has successfully established itself in numerous markets. On the other hand, Pepsi-Cola has a strong presence in North America and has made significant strides in expanding its global footprint in recent years.

Both Coca-Cola and Pepsi-Cola invest heavily in marketing and advertising to promote their brands. They utilize various strategies, such as celebrity endorsements, sponsorship of major events, and engaging social media campaigns. These efforts aim to create brand loyalty and increase consumer demand.

Regarding product diversification, both companies have expanded beyond their flagship cola offerings. They have developed various beverages, including diet versions, flavored variants, and non-carbonated drinks, to cater to changing consumer preferences and health-conscious individuals.

From the corporate responsibility perspective, Coca-Cola and Pepsi-Cola have implemented sustainability initiatives. These include reducing water usage, improving packaging, and investing in renewable energy sources. They also engage in philanthropic activities, supporting causes such as education, health, and environmental conservation.

The duopoly between the two firms has been no news to people nowadays. The paper has addressed several problems that may have contributed to the situation in the status quo. Moreover, insights into how these problems could be potentially resolved are given, while other issues are still left as a mystery and are yet to be found.

However, it is acknowledged that the data that were included within the paper were secondary, leading to a potential deviation or bias, resulting in a slight lack of relevance and accuracy. To enhance the relativity and make this paper more precised to the topic, further studies must be conducted through surveys or interviews.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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