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The Relationship between Market Share of USA Carbonated Soft Drink Industry and Advertising Spending

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Abstract:

This literature review examines the complex and evolving relationship between advertising expenditure and market share within the U.S. carbonated soft drink industry. Utilizing visible data from Coca-Cola, Pepsi and Dr Pepper in recent years, it analyzes the correlation between advertising expenditure and market share data. The findings reveal a modest positive correlation, indicating that advertising plays a relatively important role in maintaining and boosting brand position. In addition, evidence of potential development of substitute products show that brand competition is strong and fierce. Moreover, digital channel advertising demonstrates a growing effectiveness compared to traditional media. Furthermore, this paper investigates the existing scholarly research to examine the well-documented yet evolving relationship between advertising expenditure and market share in the U.S. carbonated soft drink industry. By critically evaluating the methodologies and conclusions of prior research, this study provides an integrated understanding of how advertising strategies have historically influenced market dynamics. Furthermore, evidence of potential entry of subsititute products indicates that brand competition is increasingly strong and fierce.

Keywords: Carbonated soft drink industry; advertising expenditure; consumer spending; public health.

1. Introduction

The market proportion of non-carbonated soft drinks has steadily increased during the last several years (2020-2023), marking significant changes in the U.S. carbonated soft drink sector. Brand rivalry has increased in this dynamic environment, changing quickly as business companies try to adjust to new customer tastes and health trends [1]. While the global carbonated soft drink industry continues to experience overall growth, a growing segment of consumers worldwide—particularly in health-conscious markets—demonstrates a marked shift toward low-sugar, functional, and alternative beverages.

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This trend is evident across various international markets. For instance, conventional drinks like tea, particularly green and oolong types, and regional alcoholic beverages like Baijiu, Sake, and Soju are deeply rooted cultural preferences in Asian markets like China, Japan, and Korea. In a similar vein, coffee, such as espresso in Italy, wine in France, and beer in Germany, these drinks are not only the epitome of their own food cultures, but also the essential components of people's daily life throughout Europe. However, as demand for functional alternatives has increased in the United States, it has switched significantly in favor of sports drinks like Gatorade, flavored sparkling and fitness water, and energy drinks. This trend reflects a larger cultural shift toward wellness with additional benefits [2]. The potential entry of these substitutes has undoubtedly intensified competitive pressure on traditional carbonated soft drink manufacturers.

In response to these pressures, advertising has become a central strategic instrument for maintaining relevance and consumer engagement. As Dong [3] points out, PepsiCo has deliberately positioned its campaigns to resonate with younger audiences by emphasizing youth culture, entertainment, and lifestyle identity, rather than relying solely on product attributes. This strategy exemplifies a larger industry trend: advertising in the soft drink sector frequently serves as the creation of emotional and cultural associations rather than as logical persuasion. Consumer loyalty can be shaped by campaigns that include products into everyday activities, such as through music, celebrity endorsements, or social contact, in ways that are not possible with merely functional appeals.

However, advertising investment continues to be a crucial competitive instrument for sustaining brand visibility, aligning with shifting consumer values—especially among younger demographics—and distinguishing items in a saturated market. Thus, an understanding of the dynamics of this transforming business requires an deep understanding of the relationship between advertising expenditures and market performance. The relationship between advertising spending and market share is relatively modest but strong. Not every marketing campaigns yield equal returns despite increased investment on advertising and publicity. According to industry data and information, the market for carbonated soft drinks in the United States is still increasing at a relative slow pace, and rising advertising expenditures do not always result in larger market shares [3]. This uneven outcome suggests that other factors such as innovation and proper timing might be just as decisive as financial input.

According to academic researches, business reports, and case studies, the essay attempts to compile current information and analyze various viewpoints about the effectiveness of advertising in a fiercely competitive and volatile market. By adapting literature review methodology, the essay tend to improve understanding of the strategic role that advertising plays in maintaining brand positioning and promoting growth in the face of developing markets and shifting consumer preferences. It will analyze this complex relationship and examine how the market shares of carbonated soft drink industry are affected by advertising expenditures in the America .

2. Industry Background and Market Leaders

The American carbonated soft drink industry represents a cornerstone of the nation's beverage sector, contributing billions of dollars annually and employing hundreds of thousands, characterized by intense competition, trendy brands, and evolving consumer preferences. For a long period of time, the landscape has been predominantly shaped by a triumvirate of powerful corporations: The Coca-Cola Company, PepsiCo, and Keurig Dr Pepper [4]. These companies have leveraged extensive distribution networks, massive marketing budgets, and various brand portfolios to maintain their hegemony. However, some challenges appear in recent decades, primarily a sustained shift in consumer demand away from traditional high-sugar drinks towards healthier substitutes like tea, coffee, and sparkling water. This chapter will discuss the topic from two aspects.

2.1 Advertising Spending Comparison

Advertising and marketing expenditures are not merely line items in the budgets of carbonated soft drinks giants. they are fundamental strategic investments to sustain brand vitality, drive consumer engagement and defend market position. The comparison of spending between the leading players reveals distinct strategies and competitive pressures, providing valuable insights into strategic positioning in oligopolistic markets.

Historically, both Coca-Cola and PepsiCo have been among the largest advertisers in the entire United States, not just within the beverage sector [5]. Their spending is often cyclical, peaking around major events like the Super Bowl, where a single 30-second commercial can cost approximately 700 millions dollars in 2025, reflecting the premium placed on mass-reach branding [6].

However, a closer research shows a more detailed picture. Coca-Cola often maintains a slightly higher expenditure on advertising focused squarely on its core well-known brands (like Coca-Cola, Diet Coke, Coke Zero Sugar). Its strategy is obviously global-oriented, focusing on immersive storytelling and satisfaction of customer emotional values such as the famous recognized 'Share a Coke' campaign worldwide [7,8]. Customers can design the bottle of the Coke of their own by telling the manufactures what kind of facial expressions and words they want to attatch on it. For example, users will normally have their names or a bright smile face to express their happiness. By adapting digital advertising and emotional marketing, Coca-Cola had gained a great success on sales and brand popularity in a short period of time. Besides, it also enhance its brand's classical iconic status. The "Share a Coke" campaign and its consistent holiday-themed marketing are prime examples of this high-value brand-centric investment.

PepsiCo, while also spending massively, often allocates a greater proportion of its marketing budget towards a broader portfolio that includes its formidable snack division (Frito-Lay) [9]. This allows for cross-promotional opportunities that leverage a wider consumer touchpoint. Pepsi's advertising has frequently been more youth-oriented and pop-culture-centric, partnering with music and sports superstars to project a more energetic and contemporary brand image compared to Coke's classic appeal. For example, in India, Bollywood star Ranveer Singh endorsed both Pepsi and Lay's in the same campaign, positioning them as the "must-have duo" for parties. In America, Beyoncé's Pepsi campaign, which not only promoted the beverage but also connected with Pepsi Music and even PepsiCo snacks as part of an integrated promotion. This mixed marketing strategy expands consumer occasions while strengthening Pepsi's brand associations with youth and entertainment, which truly attracts younger customer's attention.

Keurig Dr Pepper (KDP), while a significant player, operates at a different scale. Its annual advertising budget is substantially lower than its two larger rivals [10]. Consequently, KDP employs a more targeted and efficient strategy, emphasizing regional promotions and point-of-sale visibility. To boost volume in its major regional markets and for its varied product portfolios like Dr Pepper, Canada Dry, and 7UP, KDP frequently relies on below-the-line promotions, price incentives, and productive retail marketing rather than competing in the highly volatile global market of national prime-time television [11].

2.2 Market Share Dynamics

The market share dynamics within the U.S. carbonated soft drink industry illustrate a story of entrenched dominance, slow-burn shifts, and strategic adaptation. The market is an oligopoly, with Coca-Cola and PepsiCo collectively controlling more than 25% of the market shares in 2024 [12].

For years, Coca-Cola turned out to be one of the most popular brands that sustained a dominant position in the U.S. soft drink market in 2023 with roughly 19.2% of volume share, more than double PepsiCo's 8.3%, effectively widening the competitive gap. Additionally, its strength is underpinned by the unparalleled dominance of its flagship brand, Coca-Cola, which remains the single top-selling soft drink by a wide margin. The strategic success of Coke Zero Sugar in recapturing health-conscious consumers has been pivotal in mitigating losses from the declining diet soda category [7].

PepsiCo solidly holds the second position, yet it continues to face challenges in narrowing the gap with Coca-Cola in some aspcets such as market shares and product portfolios. When it comes to market shares in 2023, Pepsi's figure was lesser than half of that of Coca-Cola. While its portfolio, including Pepsi, Mountain Dew, is powerful but has historically trailed Coke's core brand in strength. However, PepsiCo's overall beverage business is strengthened by successes in non-carbonated categories such as Gatorade, enhancing its profile as a diversified beverage leader [8].

When it comes to KDP, following the merger of Keurig Green Mountain and Dr Pepper Snapple Group, KDP emerged as a stronger and more viable number three competitor [4]. It holds a market share of 8.3% as of year 2023 [9]. Its growth has often slightly exceeded its rivals, as it effectively holds a unique portfolio of owned brands and distributed brands.

3. Policy and Public-health Context

There is a major conflict between public health campaigns calling for a reduction in sugary drink consumption due to established links with obesity, diabetes, and dental caries and corporate marketing efforts to promote consumption as people's health awareness grows globally. As a result, this creates a competitive landscape where public-health messages must contend with the vast marketing resources of the food and beverage industry.

The scale of this competition is starkly illustrated by financial commitments. For example, multinational beverage firms spend billions of dollars each year on product promotion in the United States alone, despite the fact that public health programs frequently rely on inadequate grants and public funds [13]. This spending disparity creates a significant challenge for health advocates seeking to shift consumer behavior. Research indicates that counter-marketing strategies and well-crafted public health media campaigns can be successful in reducing the use of sugary drinks in the short to medium term. Data collected by Kraak et al. shows that these kinds of campaigns can effectively affect important results [14]. These treatments function by raising public awareness of the health concerns associated with sugar-filled beverages, fostering more unfavorable attitudes and beliefs about them, and eventually decreasing the desire to consume them. The most effective advertisement frequent utilize relevant and emotinal storytelling, tailored messaging and soicial media channels to reach more target customers, especially parents and youth, who are primary decision-makers and

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consumers of sugary beverages. These advertisement are mainly distributed using the combination of traditional and digital platforms.

4. Evidence of Relationship between Advertising and Target Consumer Behaviors

Numerous studies find that exposure to advertising in the carbonated soft drink industry has a notable and quantifiable impact on consumer behavior, especially among younger populations who are more vulnerable to marketing impacts. Powell, Wada, & Khan demonstrated that teenagers who see more television advertisements tend to drink more sugary drinks [15]. Their study quantified that teenagers who viewed the greatest amount of such advertisements consumed consumed on average 9–10 additional servings of sugary beverages per month compared to those with little exposure to television advertisements.

Socioeconomic disparities further amplify this effect, data compiled by the Centers for Disease Control and Prevention. Meites et al., revealed that adolescents from low-income households consumed sugar-sweetened beverages at levels nearly twice the national median [16]. For example, whereas average U.S. high school students reported drinking approximately 1.2 sugary beverages per day, the figure rose to 2.0–2.3 drinks per day among low-income and minority adolescents. Such patterns align with geographic mapping of advertising exposure: communities with higher concentrations of racial minorities and lower household incomes are disproportionately targeted by outdoor and broadcast beverage advertisements. The data thus point to a feedback loop in which targeted marketing reinforces and magnifies existing health inequities.

The mechanisms underlying this influence are not only behavioral but also neurological. Powell et al. emphasize that repeated exposure fosters brand associations tied to happiness, energy, and social belonging, which adolescents internalize at a subconscious level [15]. Familiar soft drink brands engage gustatory and reward-related areas of the teenage brain, according to evidence from neuroimaging research included in their paper. This suggests that advertising functions via neurally reinforcing desire pathways rather than only using reasoned arguments.

Moreover, the psychological mechanisms behind advertising efficacy are specially designed to cater to consumer's emotional values and tastes. Relevant neural researches indicates that emotional branding—particularly the association of carbonated soft drinks with the senses of happiness, social connection, and athletic performance in people's minds, which will subliminally affect people's purchasing desires when they see the advertisements [17]. Other studies have shown that intaking sugary drinks like Coca-Cola will rapidly activate people's specific brain areas such as gustatory and oral somatosensory, which reveals that satisfaction of consumer's brain can be strongly influenced by these kinds of carbonated soft drinks.

5. Limitations and Research Gaps

Despite the breadth of research, significant limitations and gaps persist in understanding the precise relationship between advertising spending and market share in the carbonated soft drink industry.

The primary challenge is data limitation, which directly lead to a fundamental methodological challenge which is establishing causality. To identify causal effects, future research should make use of simulated experiments like algorithmic changes and regulatory changes. It is difficult to demonstrate that changes in spending result in changes in market share, even if there are real correlations between total advertising expenditure and market performance. It is influenced by a number of complex factors, including price competition, sale promotions, the effectiveness of the distribution network, innovation of packaging design, shifting consumer tastes, and aggressive tactics by competitors. In order to differentiate the unique impact of advertising spending from these other factors, sophisticated econometric models and natural experiments are needed, but they are occasionally impeded by the same lack of comprehensive data [17].

While correlations between aggregate advertising spend and market performance can be observed, proving that changes in spending cause changes in market share is complex. Market share is a function of numerous confounding variables, including price promotions, distribution network strength, package design, shifting consumer tastes, weather, and the competitive actions of rivals. The same lack of granular data frequently hinders the use of natural experiments and complex econometric models to distinguish the different impact of marketing expenditures from these other factors [18].

Moreover, the efficiency of advertising varies significantly across various media and audience segments as well. Money spent on Gen Z-focused Instagram advertising may have a different effect on brand equity and long-term sales than a dollar spent on a Super Bowl commercial. The creative execution and cultural context of a message can also have a significant impact on its efficacy. Because advertising spending is generally viewed as a homogenous input, current research usually finds it difficult to account for this heterogeneity. In the meantime, models need to include frequency caps, visibility, and creative quality.

Finally, the regulatory framework for monitoring marketing practices is outdated. The Federal Trade Commission (FTC) last conducted a major study on food marketing to youth in 2012 [19]. As for solutions, updated auditing protocols between regulators and platforms could improve oversight. In the decade since, the marketing landscape has been revolutionized by digital platforms, which now play a dominant role. This has created a significant research gap, as acknowledged by policymakers. For example, U.S. Senator Cory Booker and others have urged the FTC to update its reporting to reflect the modern digital reality, noting that the current lack of transparency hinders the ability to craft effective public health policy [20]. This gap leaves researchers relying on outdated models and incomplete pictures of the current marketing ecosystem.

6. Conclusion

This paper has explored the intricate relationship between advertising expenditure and market share in the highly oligopolistic U.S. carbonated soft drink industry. The conclusion that advertising spending and the demand for carbonated soft drinks have a positive and economically significant relationship is supported by the balance of the information. However, this relationship is frequently mediated and modified by an array of contextual and strategic variables.

Coca-Cola and PepsiCo, the two biggest companies in carbonated soft drink industry, utilize huge, continuous advertising expenditures not only to boost sales right away but also to keep their brands at the forefront of consumers' minds, build brand equity, and foster strong cultural ties through sponsorships of music, sports events, and holiday campaigns. They especially target younger consumers, particularly with younger consumers. The empirical evidence is clear that these strategies are effective, especially the targeted digital and social media campaigns that define modern marketing. The emergence of Keurig Dr Pepper as a strong third player demonstrates that alternative, more efficient promotional strategies can also be effective in securing and growing market share.

However, this advertising activity does not occur in a vacuum. It unfolds against a tense backdrop of public health concerns regarding the health impacts of sugary drinks. The evidence shows that targeted marketing often disproportionately affects vulnerable youth populations, exacerbating health disparities. This creates a stark competitive imbalance between well-funded corporate marketing and public health campaigns, though the latter can be effective with sufficient resources and strategic messaging.

There are still several significant study limitations, mostly because of the difficulty in demonstrating causation and the opacity of the data. The field needs increasingly advanced techniques to separate the pure influence of advertising from third-party tracking technologies and advertising databases, as well as updated, comprehensive information. Future studies should focus on comprehending the distinct returns on investment (also known as ROI) of different digital marketing tactics and keep delving into the causal processes that connect exposure to advertisements to consumer behavior.

In conclusion, the carbonated soft drink sector still uses advertising as a potent strategic instrument for both defending and challenging market dominance. While its influence is not absolute, it is strong enough to affect consumer behavior at an early age, change market dynamics, and pose a serious obstacle to public health goals. It is essential for marketers, legislators, and health activists to comprehend this intricate interaction.

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