# **Original Paper**

# The U.S. Carbonated Beverages Market: A Competitive Profile

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# Abstract

This is the twenty-second paper—and the 23<sup>rd</sup> and 24<sup>th</sup> studies--that follow the footsteps of twenty-two studies that have tried to analyze the competitive profiles of U.S. consumer markets: Men's Shaving Cream, Beer, Shampoo, Shredded/Grated Cheese, Refrigerated Orange Juice, Men's Razor-Blades, Women's Razor-Blades, Toothpaste, Canned Soup, Coffee, Potato Chips, Alkaline AA Battery, Facial Tissue, Toilet Paper, Paper Towel, Disposable Diapers, Sanitary Pads, Automatic-Dishwasher Detergent, Hand-Dishwashing Detergent, Household Liquid Non-Disinfectant Cleaner, Heavy-Duty Liquid Laundry Detergent, and Deodorant.

Michael Porter associates high market share with <u>cost leadership</u> strategy, which is based on the idea of competing on a price that is <u>lower</u> than that of the competition.

However, customer-perceived <u>quality</u>—<u>not</u> low cost—should be the underpinning of competitive strategy, because it is far more vital to <u>long-term</u> competitive position and profitability than any other factor. So, a superior alternative is to offer <u>better</u> quality vs. the competition.

In most consumer markets, a business seeking market share leadership should try to serve the <u>middle</u> <u>class</u> by competing in the <u>mid-price</u> segment; and offering quality <u>better</u> than that of the competition: at a price somewhat <u>higher</u> to signify an image of quality, and to ensure that the strategy is both profitable and sustainable in the long run.

The middle class is the socio-economic segment that represents about 40% of households in America. Quality, however, is a <u>complex</u> concept, consumers generally find difficult to understand. So, they often use <u>relative</u> price, and a brand's <u>reputation</u>, as a symbol of quality.

The U.S. Carbonated Beverages is a <u>mega</u>-market that had retail sales of \$14,178 million in 2008. It had <u>six</u> segments: Cola Regular, Cola Diet, Non-Cola Regular, Non-Cola Diet, Lemon-Lime Regular, and Lemon-Lime Diet. We have combined them in two studies: Cola Regular and Diet Carbonated Beverages, and Non-Cola--Lemon-Lime Regular Carbonated Beverages, with 2008 retail sales, respectively, of \$6,639 million, and \$5,415 million.

For both markets we have focused our analysis on the 12-Oz size because it was the most popular. Using Hierarchical Cluster Analysis, we tested two hypotheses: (I) That the market leader is likely to compete in the <u>mid-price</u> segment, and that (II) Its unit price is likely to be <u>higher</u> than that of the nearest competition.

For the Cola Carbonated Beverages market, the data did <u>not</u> support Hypothesis I for both 2008 and 2007, because Coca-Cola Classic Regular, the <u>market leader</u>, was a member of the <u>super-premium</u> segment.

Similarly, the data did not support Hypothesis II for both 2008 and 2007 either, because Pepsi Regular, the <u>runner-up</u>, had a unit price that was <u>higher</u> than that of the <u>market leader</u>, Coca-Cola Classic Regular.

For the Regular Non-Cola--Lemon-Lime Carbonated Beverages market the data also did not support Hypothesis I because Mountain Dew, the market leader, was a member of the <u>premium</u> segment for both 2008 and 2007.

However, the data <u>did</u> support Hypothesis II, because, Dr. Pepper, the runner-up, had a unit price that was <u>lower</u> than that of the market leader, Mountain Dew for 2008 and 2007.

We found that relative price was a strategic variable, as we have hypothesized.

We also discovered <u>two</u> strategic groups in the Cola Carbonated Beverages market, and <u>four</u> in the Non-Cola--Lemon-Lime Regular Carbonated Beverages market.

A pattern is emerging in price-quality segmentation analysis. In <u>thirteen</u> of the twenty-four studies—that exclude Men's Razor-Blades, Women's Razor-Blades, Coffee, Toilet Paper, Paper Towels, Disposable Diapers, Sanitary Pads, Liquid Heavy-Duty Laundry Detergent, Deodorants, Cola Carbonated Beverages, and Regular Non-Cola--Lemon-Lime Carbonated Beverages—the market leader was found to be a member of the <u>mid-price</u> segment, as we have hypothesized.

Also, results in <u>eleven</u> markets supported Hypothesis II.

#### Keywords

U.S. Carbonated Cola Beverages market, U.S. Carbonated Regular Non-Cola Lemon-Lime market, market segmentation, cost leadership strategy, price-quality segmentation, market-share leadership, relative price a strategic variable, strategic groups.

## 1. Introduction

This is the twenty-second paper—and the 23<sup>rd</sup> and 24<sup>th</sup> studies--that follow the footsteps of twenty-two studies (Note 1) that have tried to analyze the competitive profiles of U.S. consumer markets: Men's Shaving Cream, Beer, Shampoo, Shredded/Grated Cheese, Refrigerated Orange Juice, Men's Razor-Blades, Women's Razor-Blades, Toothpaste, Canned Soup, Coffee, Potato Chips, Alkaline AA Battery, Facial Tissue, Toilet Paper, Paper Towel, Disposable Diapers, Sanitary Pads, Automatic-Dishwasher Detergent, Hand-Dishwashing Detergent, Household Liquid Non-Disinfectant Cleaner, Heavy-Duty Liquid Laundry Detergent, and Deodorant.

(Datta, 2012, 2017, 2018a, 2018b, 2018c, 2019a, 2019b, 2020a, 2020b, 2020c, 2020d, 2021, 2023a, 2023b, 2023c, 2023d, 2024a, 2024b, 2024c, 2024d, 2024e).

This research relies on a broader, integrated framework of market segmentation which includes both

the demand *and* supply sides of the competitive equation. This approach is based on the idea that *starting* with '*product*' characteristics is both an *easier* and more *actionable* way of segmenting markets, than the *traditional* marketing approach that typically begins with the customer or '*people*' characteristics (Datta, 1996).

This analysis is based on the notion that the path to market share leadership does *not* lie in lower price founded in *cost leadership* strategy, as Michael Porter (1980) suggests. Rather, it is based on the premise—according to the PIMS database research (Note 2)—that it is *customer*-perceived quality that is crucial to long-term competitive position and profitability. So, the answer to market share leadership for a business is to *differentiate* itself by offering quality *better* than that of the nearest competition (Datta, 2010a, 2010b).

To make this idea *operational* requires *two* steps. The *first* is to determine *which* price-quality segment to compete in? Most consumer markets can be divided in three *basic* price-quality segments: *premium*, *mid-price*, and *economy*. These can be extended to *five* by adding two more: *ultra-premium* and *ultra-economy* (Datta, 1996).

The answer lies in serving the *middle* class by competing in the *mid-price* segment. This is the socio-economic segment that represents about 40% of households in America (Datta, 2011). It is also the segment that Procter & Gamble (P&G), the largest American multinational corporation, has successfully served in the past (Datta, 2010b).

#### 2. The Strategic Importance of Price Positioning

The *second* step for a business seeking market share leadership is to *position* itself at a price that is *somewhat* higher than that of the nearest competition. This is in accord with P&G's practice based on the idea that although higher quality does deserve a "price premium," it should *not* be excessive (Datta, 2010b). A higher price offers *two* advantages: (1) It promotes an *image* of quality, and (2) It ensures that the strategy is both profitable and sustainable in the long run (*ibid*).

As mentioned above, the *middle* class constitutes about 40% of households in America. So, in a *competitive* market one would normally expect more than one major brand competing in the *mid-price* segment.

A classic example of price positioning is provided by General Motors (GM). In 1921 GM rationalized its product line by offering "a car for every purse and purpose"—from Chevrolet to Pontiac, to Oldsmobile, to Buick, to Cadillac. More importantly, GM *positioned* each car line at the *top* of its segment (Datta, 1996, 2010a).

A more recent and familiar example is the *economy* chain, Motel 6, which has positioned itself as "offering the *lowest* price of any national chain." Another example is the Fairfield Inn. When Marriott introduced this chain, it targeted it at the *economy* segment. And then it positioned Fairfield at the *top* of that segment (Datta, 1996).

#### 2.1 Close Link between Quality and Price

As mentioned above, *customer*-perceived quality is the most important factor contributing to the long-term success of a business. However, quality *cannot* really be separated from price (Datta, 1996). Quality, in general, is an intricate, multi-dimensional concept that is difficult to comprehend. So, consumers often use *relative* price—and a brand's *reputation*—as a symbol of quality (Datta, 1996, 2010b).

#### 3. A Brief History of the U.S. Carbonated Beverages Market

The U.S. Carbonated Beverages Market is a *mega*-industry with 2008 retail sales of \$14.2 billion. This far outpaces another mega-industry: the U.S. Beer Market which had 2008 retail sales of \$9.5 billion (Datta, 2017).

The Carbonated Beverages market can be divided in *three* broad segments: *Diet and Regular Cola* with retail sales of \$6,639 million, *Regular Non-Cola—Lemon-Lime* segment with sales of \$5,415 million, and *Remaining Diet Beverages* with sales of \$2,125 million.

We have focused our statistical analysis on the *first two*.

Another way to look at the U.S. Carbonated Beverages market is: *Regular* vs. *Diet*, which had 2008 sales, respectively, of \$9,137 million, and \$5,041 million.

This means that the *sugary* drinks constituted about *two-thirds* (64%) of total Carbonated Beverage sales in 2008.

The *Cola* market is a *duopoly* that is dominated by two companies. In 2008, Coca-Cola Co. had a market share of 56% in the regular and diet Cola market, followed by PepsiCo's share of 39%, totaling a 95% share of the Cola market (Table 1).

The non-cola market has three main players: Coca-Cola Co, PepsiCo, and Keurig Dr. Pepper.

#### 4. Regular vs. Diet

Regular soda and Diet soda have some important differences (Note 3):

- Regular soda contains a lot of *sugar*, usually, from high fructose corn syrup.
- Diet soda, on the other hand, contains artificial sweeteners.
- While Diet soda has almost no calories, regular soda contains calories from sugar.
- A 12oz serving of Coca-Cola Classic has 155 calories, while Diet Coke and Coca-Cola Zero have none.
- High sugar content of Regular soda can cause blood glucose levels to rise *sharply*, which can be especially of concern to people with diabetes or insulin resistance.
- Diet soda doesn't raise blood sugar levels because it doesn't have sugar.
- *Both* regular and diet soda contain *carbonated water*, *caffeine*, and *phosphoric acid* (if it's a dark cola).
- In the opinion of some experts, neither regular nor diet soda is a good option.

- Rather, sparkling mineral water, kombucha, or flavored sparkling water are better substitutes.
- 4.1 Artificial Sweeteners Used in Diet Soda

Artificial sweeteners used in diet sodas include aspartame, acesulfame potassium, and sucralose (Note 4):

Aspartame

Found in NutraSweet and Equal brands, aspartame is considered safe by the FDA.

However, some studies have linked it to an increased risk of stroke, mood disorders, mental stress, and depression.

• Acesulfame potassium

Found in Sunnett and Sweet One brands, acesulfame potassium has been linked to an increased risk of coronary artery disease.

Sucralose

Found in Splenda, sucralose has been linked to an increased risk of coronary artery disease.

#### 5. Coca-Cola and the Coca-Cola Co.

The Coca-Cola Company is an American multinational corporation founded in 1892. Pharmacist John Pemberton created Coca-Cola in 1886. When Coca-Cola was introduced, it contained *cocaine* from *coca leaves*, and *caffeine* from kola nuts, all of which acted as a *stimulant*. Pemberton adopted the name Coca-Cola for the drink based on its ingredients--coca and kola--and that led to its promotion as a "healthy tonic" (Note 5).

Pemberton was severely wounded in the American Civil War, and had become addicted to morphine as a pain medication. At that time, cocaine was being promoted as a "cure" for opioid addiction, so he developed Coca-Cola as a *patent* medicine in an effort to control his addiction (Note 5).

In 1889 the formula and the brand were sold to Asa Griggs Candler who *incorporated* the Coca-Cola Co. in Atlanta in 1892 (Note 5).

Since it contained a trace of *cocaine*, Coca Cola was sold as an *over-the-counter feel-good* potion. However, sensing that this market was *too small*, the company decided to target the drink to a much *larger* consumer market (Datta, 1997).

And the rest is history (*ibid*)!

So, in 1903, Coca-Cola Co. *removed* cocaine from its formula, leaving caffeine as the only stimulant ingredient. Likewise, it dropped all medicinal claims regarding its cola drink (Note 6).

The company has kept the formula for Coca-Cola as a closely guarded trade secret (Note 6).

The invention of *hybrid* corn F-1 was a major breakthrough in agriculture. It was so productive that it could produce 180 bushels of corn per acre: compared to just 20 bushels per acre before. However, it has to be produced *every* season, and therefore farmers have to buy it from a corporation *each* spring (Datta, 2018b).

So, since 1980s virtually all sodas and fruit drinks...have been sweetened with high fructose corn syrup

because it is so much cheaper than sugar (ibid).

Coca-Cola Co. produces *syrup concentrate* which is then sold throughout the world to *bottlers* who hold exclusive territories created by the company's *franchise* system (Note 5).

In 1916, the company introduced the iconic Coca-Cola *contour* bottle to prevent confusion with copycats (Note 7). Renowned industrial designer, Raymond Loewy characterized it as a *design classic*. The bottle has been celebrated in art, music and advertising. Andy Warhol drew the contour bottle to represent *mass culture*. To celebrate the shape of the VW Beatle, Volkswagen compared it to the contour *bottle* (Note 7). Early in Coca-Cola's history, the company discovered that, instead of Coca-Cola people were asking for Coke in stores. Coca-Cola Co. feared that the short nickname would eat away at its brand identity that could quite possibly make the brand a generic trademark (Note 8).

So, Coca-Cola Co. had to make a choice. Either keep fighting that trend and risk another company adopting the word "Coke" as a trademark. Or embrace it.

Finally, in 1945, the company gave in to the strong desire of its customers, and made the nickname Coke as its *trademark* (Note 8).

#### 6. Pepsi-Cola and PepsiCo, Inc.

Caleb Bradham, a pharmacist in New Bern, North Carolina, created "Brad's Drink" in 1893 in his drugstore soda fountain. The drink's ingredients were: sugar, water, caramel, lemon oil, nutmeg, and kola nuts (Note 9).

In 1898, Bradham renamed the drink "Pepsi-Cola" (Note 9).

Bradham incorporated the Pepsi-Cola Co. in 1902 (Note 9).

Charles G. Guth purchased the company's trademark and assets in 1931. He introduced the 12-ounce bottle which became popular during the Great Depression. Guth also established new bottling operations and a new formula for the drink (Note 9).

In 1962, the company's name was changed to PepsiCo, Inc. (Note 9).

#### 7. Non-Cola and Lemon-Lime Carbonated Beverages

In this group there were *three* corporate players: Mountain Dew, the *market leader*, owned by PepsiCo; Dr. Pepper, the *runner-up*, owned and sold by Keurig Dr. Pepper Co; and Sprite Lemon-Lime, owned by Coca Cola Co.

#### 8. Mountain Dew

The original formula for Mountain Dew was invented in the 1940s by Tennessee beverage bottlers Barney and Ally Hartman. They created Mountain Dew as a mixer for moonshine and other liquor (Note 10).

In the 19th-century, the name "Mountain Dew" was a slang term for whiskey, especially Highland Scotch. The Hartmans secured a trademark for the name in 1948 (Note 10).

The main ingredient of Mountain Dew is concentrated orange juice (Note 11).

The Pepsi-Cola Co. acquired the Mountain Dew brand and production rights in August 1964. This purchase permitted Pepsi to enlarge the distribution of the brand across the United States and Canada (Note 12).

### 9. Dr. Pepper

Dr. Pepper was created in the 1880s by pharmacist Charles Alderton in Waco, TX. Dr Pepper was first nationally marketed in the United States in 1904. It is now sold in countries around the entire world (Note 13).

Dr Pepper is owned and sold by the Keurig Dr. Pepper Co. The company has owned the brand since 2018 (Note 14).

Although Dr Pepper is similar to a *cola*, the American Food and Drug Administration has ruled that "Dr Pepper is not a cola, nor a root beer, nor a fruit-flavored soft drink." Rather, it is said to be in a category of its own, called "pepper soda" (Note 14).

The formula for Dr Pepper is a trade secret, just like the one for Coca-Cola (Note 14).

To compete with Dr. Pepper, Coca-Cola Co. introduced a spicy *cherry*-flavored drink, Mr. Pibb, in 1972. In 2001 the company replaced it with Pibb Xtra (Note 15).

### 10. Sprite Lemon-Lime

The *brand* name Sprite was created in 1955 by T. C. "Bud" Evans, a Coca-Cola distributor in Houston. The Coca-Cola Co. acquired the rights to the name in 1960 (Note 16).

The lemon-lime *drink* known as Sprite today was developed in West Germany in 1959 as Fanta Klare Zitrone, and was introduced in the United States under the Sprite name in 1961 as a competitor to 7 Up (Note 16).

# 11. America Has Some of the World's Highest Rates of Soft Drink Consumption

As of October 30, 2023, the average American drinks 42.8 gallons of soft drinks every year. This is down from the peak of 53 gallons in 2000, which is a 25% decrease (Note 17).

The United States has some of the highest rates of soft drink consumption in the world. Some of the health risks associated with such high consumption of soda include: "diabetes, weight gain, and cavities" (Note 17).

The factors that affect consumption of soft drinks are (Note 17):

- Young adults are more likely to consume soda than adults who are older.
- U.S.-born blacks, Puerto Ricans, Mexican, or Mexican-Americans are *more* likely to consume soda than whites.
- Income-poverty ratio is an important predictor of frequent soda consumption.

Lower education is associated with higher consumption of sugary drinks (Note 18).

#### 12. Sugar, Caffein, and Carbonation Make Soft Drinks Highly Addictive

"Neuroscientists have concluded that the *sugar*, *caffeine* and *carbonation* of soft drinks are designed to deliver intense and *addictive* experiences that leave you wanting more" (Notes 19, 20, *italics* added).

Soft drinks have large quantities of *sugar* which, when consumed, causes "a 'rush' that is extremely addictive and leads to even bigger cravings." This then activates reward centers of the brain, releasing dopamine and other hormones to create a feeling of *euphoria* (Note 20).

All soft drinks do not contain caffein. But those that do are even more addictive. When caffein and sugar are consumed *together* regularly, people can develop an "unhealthy dependence on them to function, and experience serious withdrawal effects such as headaches or tiredness if deprived" (Note 20).

"The *fizz* of soft drinks adds an element of *acidity* that causes an intense sensation, intensifying the *euphoric* feeling people experience when they drink them. The carbonation has the added effect of *blunting* the sweetness just enough to increase cravings and leave you wanting more" (Note 20, *italics* added).

"People develop strong associations and *emotional* connections with the *ritual* of drinking soft drink. The simple act of opening a *can* and hearing the *pop* can be highly suggestible, creating feelings of desire and enticing people to drink them" (Note 20).

In an extensive statistical study, that involved over 24,000 adults and spanned *four* years, Smith and Zagorsky (2020) found that the poorest Americans drink considerably *more* sugary drinks than the richest (Note 21).

Interestingly, however, the authors also found that *changes* in income and wealth—even big ones—were *not* correlated to changes in the consumption of sugary drinks. Adults who had become richer did *not* report a drop in consumption of sugary drinks (*ibid*).

Smith and Zagorsky point out that one explanation is that although level of wealth and income shape our *early* consumption habits of sugary soft drinks, those habits do *not* change much during adulthood (*ibid*). They say that another view is that four years is *not* enough time to bring about a noticeable change (*ibid*). However, based on the research cited above, a *more* appropriate response seems to be that the reason *changes* in income and wealth—even big ones—were *not* correlated to changes in the consumption of sugary drinks is because: sugary drinks are highly *addictive*.

Smith and Zagorsky (2020) suggest one way to *reduce* consumption of sugary drinks is to impose soda *taxes* on sugary drinks. However, since sugary-beverage consumption is higher among poorer Americans, these taxes can be regressive (*ibid*).

One study found that taxes based on the *amount* of sugar in a drink are more successful, than those based on drink volume, a practice more common in America (*ibid*).

#### 13. The U.S. Carbonated Beverages Market —Price-Quality Segmentation Profile

This study is based on U.S. retail sales of this market for 2008 and 2007 (Note 22). The data includes total dollar and unit sales, no-promotion dollar and unit sales, and promotion dollar and unit sales (Note 23).

The U.S. Carbonated Beverages Market had retail sales of \$14,178 million in 2008. It had six segments: Cola Regular, Cola Diet, Non-Cola Regular, Non-Cola Diet, Lemon-Lime Regular, and Lemon-Lime Diet. We have combined them in two studies: Cola Regular & Diet Carbonated Beverages, and Non-Cola--Lemon-Lime Regular Carbonated Beverages, with 2008 retail sales, respectively, of \$6,639 million, and \$5,415 million.

For both markets we have focused our analysis on the 12-Oz size because it was the most popular.

#### 14. Hierarchical Clustering as the Primary Instrument of Statistical Analysis

We have used cluster analysis as the *primary* statistical tool in this study. As suggested by Ketchen and Shook (1996), we have taken several steps to make this effort as *objective* as possible:

- First, this study is *not* ad-hoc, but is grounded in a *theoretical* framework, as laid out below.
- Second, we are fortunate that we were able to get *national* U.S. sales data for our study for *two* years.
- Thus, this data provided a *robust* vehicle for subjecting cluster consistency and reliability to an *additional* test.
- Third, we wanted to use two different techniques—KMeans and Hierarchical—to add another layer of cluster consistency and reliability. However, we found Hierarchical cluster analysis to be *superior* in meeting that test. So, we did *not* consider it necessary to use the KMeans technique.

#### 15. Theoretical Foundation for Determining Number of Clusters—and Their Meaning

As already stated, a major purpose of this paper is to identify the market share *leader* and determine the price-quality segment—based on unit *price*—it was competing in.

An important question in performing cluster analysis is to figure out the *number* of clusters based on an *a priori* theory. Most consumer markets can be divided in three *basic* price-quality segments: *premium*, *mid-price*, and *economy*. These three basic segments can be extended to *five*: with the addition of *super-premium* and *ultra-economy* segments (Datta, 1996).

Therefore, *three* represents the *minimum* and *five* the *maximum* number of clusters (Datta, 2012, 2017, 2018a, 2018b, 2018c, 2019a, 2019b, 2020a, 2020b, 2020c, 2020d, 2021, 2023a, 2023b, 2023c, 2023d, 2024a, 2024b, 2024c, 2024d, 2024e).

An equally crucial issue is to find out what each cluster (e.g., *economy*, *mid-price*, *and premium*) really *means*.

Perhaps a good way to understand what each price-quality segment stands for in *real* life is to look at a

socio-economic *lifestyle* profile of America. It reveals *six* classes (Note 24). Each class is associated with a price-quality segment typified by the retail stores where they generally shop: each a symbol of their *lifestyle* (Datta, 2011).

15.1 Guidelines for Cluster Consistency and Reliability

In addition to laying a theoretical foundation for the *number* of clusters, we set up the following guidelines to *enhance* cluster consistency and reliability (Datta, 2012, 2017, 2018a, 2018b, 2018c, 2019a, 2019b, 2020a, 2020b, 2020c, 2020d, 2021, 2023a, 2023b, 2023c, 2023d, 2024a, 2024b, 2024c, 2024d, 2024e):

- In general, there should be a *clean break* between *contiguous* clusters.
- The *anchor* clusters—the top and the bottom—should be *robust*. In a cluster-analysis project limited to a range of three to five clusters, a robust cluster is one whose membership remains *constant* from three- to four-, *or* four- to five-cluster solutions.
- Finally, we followed a step-by-step procedure to determine the optimal solution. First, we start with *three* clusters. Thus, the bottom cluster obviously becomes the *economy* segment, and the top cluster the *premium* segment. Next, we go to *four* clusters, and *tentatively* call them: *economy*, *mid-price*, *premium*, and *super-premium*. Then we go to *five* clusters. If the membership of the *bottom* cluster remains unchanged from what it was in the four-cluster result, it clearly implies that the *ultra-economy* segment does *not* exist. Then, if the membership of the *top* cluster also remains the same from a four- to a five-cluster solution, then the *top* cluster becomes the *super-premium* segment.
- This signifies that even in a five-cluster solution we have only *four* price-quality segments: *economy, mid-price, premium,* and *super-premium.*
- It means that either the *premium* or the *mid-price* segment consists of *two sub-*segments.

15.2 External Evidence to Validate Results of Cluster Analysis

Whenever possible, we have tried to seek *external* evidence to validate the results of cluster analysis. For example, many companies identify on their websites a certain brand(s) as a *premium* or luxury brand. A case in point is that of P&G which says that its plan is to compete in all "price points": *super-premium*, *premium*, and *mid-price: except* the *economy* segment (Datta, 2010b).

# 16. Results of Hierarchical Cluster Analysis

Using Hierarchical Cluster Analysis, we tested two hypotheses:

- I—That the market share leader would be a member of the *mid-price* segment.
- II—That the market share leader would carry a price tag that is *higher* than that of the nearest competition.

For the *Cola* market, the data did *not* support Hypothesis I for both 2008 and 2007, because Coca-Cola Classic Regular, the *market leader*, was a member of the *super-premium* segment.

Similarly, the data did not support Hypothesis II for both 2008 and 2007 either, because Pepsi Regular,

the *runner-up*, had a unit price that was *higher* than that of the *market leader*, Coca-Cola Classic Regular.

It is because the Cola market in 2008 was a *duopoly*, it enabled *both* the market leader, Coca-Cola, and the runner-up, Pepsi, to charge *super-premium* prices.

For the *Non-Cola--Lemon-Lime Regular* market the data did not support Hypothesis I also because Mountain Dew, the *market leader*, was a member of the *premium* segment for both 2008 and 2007.

However, the data *did* support Hypothesis II for both years, because, Dr. Pepper, the *runner-up*, had a unit price that was *lower* than that of the *market leader*, Mountain Dew.

#### 17. Relative Price a Strategic Variable

Finally, we performed one more test to determine the consistency and reliability of the results of cluster analysis in this study. So, we *ranked* the unit price of Cola brands for 2008 and 2007. All *three* measures of *bivariate* correlation—Pearson, and non-parametric measures Kendall's tau\_b, and Spearman's rho—were found to be *significant* at an amazing 0.01 level!

Similarly, we *ranked* the unit price of Regular Non-Cola and Lemon-Lime brands for 2008 and 2007. All *three* measures of *bivariate* correlation—Pearson, and non-parametric measures Kendall's tau\_b, and Spearman's rho—were found to be *significant* at an amazing 0.01 level!

We believe that these surprising results became possible only, because management in the U.S. Carbonated Beverages market must have been treating *relative* price as a strategic variable, as we have hypothesized.

## 18. The Role of Promotion

We performed *bivariate* correlation between total retail sales vs. promotional (PROMO) sales. The results were significant for *all* three measures—Pearson, Kendall, and Spearman—at an amazing 0.01 level!

For 2008 the promotional sales of the Cola Carbonated Beverages Market averaged 70% of total retail sales (Table 3), and 54% for Non-Cola—Lemon-Lime Regular Carbonated Beverages Market (Table 4).

The previous 22 studies and the current two, can be classified in *two* broad groups.

Sixteen fall in the Non-Food group:

• Men's Shaving Gel, Shampoo, Toothpaste, Men's Razor-Blades, Women's Razor-Blades, Alkaline AA Battery, Facial Tissue, Toilet Paper, Paper Towel, Disposable Diapers, Sanitary Pads, Automatic-Dishwasher Detergent, Hand-Dishwashing Detergent, Household Liquid Non-Disinfectant Cleaner, Liquid Heavy-Duty Laundry Detergent, and Deodorant.

The *average* promo score for the *Non-Food* group ranged from the low of 11% for Men's Razor-Blades, to a high of 49% for Heavy-Duty Liquid Laundry Detergent.

The Food group can be subdivided in two sub-groups: Non-Discretionary and Discretionary.

The *Non-Discretionary Food* Group includes: Shredded-Gated Cheese, Refrigerated Orange Juice, Chicken-Noodle Soup, and Ground Coffee with average promo scores, respectively, of 45%, 46%, 36%, and 44%.

The *Discretionary Food* Group includes: Lager Beer, Potato Chips, Cola Carbonated Beverages, and Non-Cola-Lemon-Lime Regular Carbonated Beverages, with average promo scores, respectively: of 48%, 54%, 70%, and 54%.

Clearly, the average promo score of the *Discretionary Food* Group—as one would expect—is much *higher* than that of the *Non-Discretionary Food* Group.

So, the question is: why the promo score of Cola Beverages market is so high?

Now let us take Lager Beer. First, Lager Beer is much *more* expensive than Cola Beverages. Second, a typical lager beer has an alcoholic content of 5% (Datta, 2017). So, there is only so much beer one can drink every day.

Although Potato Chips are relatively inexpensive, there is a limit to how much one can consume them in a single day.

# 19. Cola Industry Using Heavy Promotion Because Soft Drinks Are Highly Addictive

Now let us take Cola beverages. First, they don't cost much, and so it would not be inappropriate to call them the "People's Drink."

Some people drink soft drinks like *water* because they find them *tasty*. However, soft drinks are not only *not* as hydrating as water, but can also have *negative* health effects (Note 25).

As we have reported in Ch. 12, *sugar*, *caffein*, and *carbonation* make soft drinks highly *addictive*. So, there is only one conclusion one can draw: that the Cola industry is relying on *heavy* promotion because soft drinks are highly *addictive*.

#### 20. A Pattern Emerging in Price-Quality Segmentation Analysis

This is the *twenty-second* paper--and the 23rd and 24th study--that encompasses analysis of competitive profiles of U.S. consumer markets. In each study we have tested two hypotheses:

- I—That the market-share leader would be a member of the *mid-price* segment.
- II—That the market-share leader would carry a price tag that is *higher* than that of the nearest competition.

#### 21. Men's and Women's Razor-Blade Markets Did Not Support Hypothesis I

In the Men's Razor-Blade market for 2008, the *market leader* was Gillett Mach 3 in the *premium* segment, and Gillette Fusion, the *runner-up*, was in the *super-premium* segment (Datta, 2019a) In the Women's Razor-Blade market for 2008, the market leader Gillett Venus, the *market leader*, and Schick Intuition Plus, the *runner-up*, were *both* members of the *premium* segment (Datta, 2019b). So, what are the factors that these two markets have deviated from our theory (Datta, 2019a, 2019b):?

- The technology for making Men's and Women's Razors and Blades has now become quite *intricate*, based as it is on *three* fields: metallurgy, chemistry, and electronics, which, in turn, raises the *cost* of production,
- Gillette has been pursuing a strategy of *innovation* and constant improvement, offering new features—and benefits—than ever before, which has consequently made it possible for it to charge *premium* prices.
- Gillette's virtual *monopoly* of the industry is another factor, that has enabled it to position itself in the *premium* and *super-premium* segments: rather than the *mid-price* segment.
- Many men—and women--consider shaving an important part of *personal grooming*, for which they are willing to pay *premium* prices: because they regard it an "affordable luxury."

# 22. Nine More Markets--Coffee, Toilet Paper, Paper Towel, Disposable Diapers, Sanitary Pads, Liquid Heavy-Duty Laundry Detergent, Deodorant, Cola Carbonated Beverages, and Regular Non-Cola Lemon-Lime Carbonated Beverages--Did Not Support Hypothesis I

In the *Coffee* market, the *market leader*, Folgers, and the *runner-up* Maxwell House, were *both* members of the *economy* segment, although Folgers' unit price was *higher* than that of Maxwell House, as we have hypothesized (Datta, 2020c).

This is truly an *astonishing* result! In all the remaining *twenty-three* markets, *not* a single market leader competed in the *economy* segment.

This implies that both Folgers and Maxwell House were following the *cost leadership* strategy--based on *lower* price, rather than better quality--and treated coffee as a *commodity* to gain market share. So, it is not unreasonable to conjecture that such a strategy is *not* likely to have been very profitable (Datta, 2020c).

The results in the Toilet Paper study also did *not* support Hypothesis I, because Charmin, the *market leader*, was a member of the *premium* segment (Datta, 2023b).

Toilet activity is quite complex, in which personal *hygiene* plays a vital role. Although a *bidet* is quite popular in Europe, very few people in America use it (*ibid*).

So, in the *absence* of a substitute, Americans are willing to pay *premium* prices for toilet paper, because it serves an *important* need: an *antidote* to germs and disease (*ibid*).

In the Paper Towel market, the *market leader*, Bounty, was a member of the *super-premium* segment (Datta, 2023c).

So, what made this extraordinary result possible?

P&G *revolutionized* the industry with a 2-*ply* paper towel, Bounty, that was not only *soft* and *strong*, but was *unmatched* in being *quick* and *absorbent* on spills (*ibid*).

Whereas most paper towel makers were marketing *strength* or *softness*, P&G discovered that consumers generally *preferred* something else: *absorbency:* for which 39% of American customers paid *super-premium* prices for Bounty paper towel in 2008 (*ibid*).

And that is why P&G uses the slogan "*The Quicker Picker Upper*" in its advertisements for Bounty (*ibid*).

P&G, has listed five *core* strengths. The *first* in that list is a "deep *understanding* of consumers and placing them at the *center* of all decision making" (Datta, 2010b).

In today's environment of constantly-changing market boundaries, the critical task for management is not just to meet customer needs, but to *anticipate* them. The winning companies aim at "customer delight" by trying not only to *exceed* customer expectations, but even *anticipating* unsatisfied needs the customers themselves may not have realized they had (Datta, 2010b).

So, the real reason behind P&G's success in the Paper Towel market is because the company has made a deep understanding of customers its *core* business philosophy.

In the Disposable Diapers market, Pampers, the *market leader*, *was a* member of the *super-premium* segment.

In the words of Peter Drucker, Pampers disposable baby diapers "*created* customers" and served them *better* than the competition (Datta, 2023d).

Thus, what Pampers was able to accomplish was also the direct result of P&G's *core* business philosophy of a deep understanding of customers.

Another reason, according to P&G, is the rising cost of *pulp*--a raw material used to make Disposable Diapers--and higher transportation and freight costs (*ibid*).

In the Sanitary Pads market, the *market leader*, Ultra-thin-with-Wings, was a member of the *premium* segment.

*Menstruation* is an activity that is so *complex* that it is synonymous with *femininity* itself. So, it is not surprising that many women are willing to pay *premium* prices for such a fundamental need (Datta, 2024a).

The Liquid Heavy-Duty Laundry Detergent market also did not support Hypothesis I because the *market leader*, Tide (100 Oz), was a member of the *premium* segment. The primary argument is that Tide was such a *dominant* player in the market that it allowed P&G to *position* Tide in the *premium* segment.

Yet, we offer one more argument. Let us compare Liquid *Laundry* detergent market with Liquid *Dishwasher* detergent market. In the latter, the market leader was P&G's Cascade that was a member of the *mid-price* segment. In both markets clean dishes and clean clothes are important. Nevertheless, there is an important *distinction* between the two. Clean dishes are normally *not* on public display (except when one has guests). However, clothes *are* on *public* display. So, many customers are willing to pay *premium* prices for a laundry detergent brand such as Tide.

In the Deodorant market the *market leader*, Secret, was a member of the *premium* segment. It is important to point out that a major reason for Secret's impressive performance is that--*unlike* other deodorant brands—it was designed for and marketed to *women* who desired a product that would contribute to their "feelings of femininity, daintiness and freshness": for which they were willing to pay

premium prices.

In the Cola Beverages market the Coca-Cola Classic Regular, the *market leader*, and Pepsi Regular, the *runner-up*, were both members of the *super-premium* segment. The primary reason for this result is that this market is a duopoly in which these two companies controlled 95% share of the Cola market in 2008.

In the Regular Non-Cola Lemon-Lime market, Mountain Dew, the *market leader*, was a member of the *premium* segment.

However, *eight* of the above nine markets--that exclude the Cola market--*supported* Hypothesis II. But the Cola Carbonated Beverages market did *not* support Hypothesis II because Pepsi Regular, the *runner-up*, had a unit price that was *higher* than that of the market leader, Coca-Cola Classic Regular.

#### 23. Results in Thirteen Markets Supported Hypothesis I

In thirteen of the twenty-four markets—that *exclude* Men's Razor-Blades, Women's Razor-Blades, Coffee, Toilet Paper, Paper Towel, Disposable Diapers, Sanitary Pads, Liquid Heavy-Duty Laundry Detergent, Deodorant, Cola Carbonated Beverages, and Non-Cola Lemon-Lime Regular Carbonated Beverages—the market leader was found to be a member of the *mid-price* segment for *both* 2008 and 2007 (see Note 14), as we have hypothesized. Those market leaders are:

• Edge Men's Shaving Gel, (2) Bud Light Lager Beer, (3) Pantene Shampoo, (4) Kraft Shredded/Grated Cheese, (5) Tropicana Refrigerated Orange Juice, (6) Crest Toothpaste, (7) Campbell Chicken Broth, and Campbell Chicken Noodle Soup, (8) Lay's Potato Chips, (9) Energizer Alkaline AA Battery (Note 26), (10) Kleenex Facial Tissue, (11) Cascade Automatic-Dishwasher Detergent, (12) Palmolive Hand-Dishwashing Detergent, and (13) Formula 409 Household Liquid Non-Disinfectant Cleaner.

#### 24. Results in Eleven Markets Supported Hypothesis II

The Men's Razor-Blades market did not support Hypothesis II (Ch. 21).

Although, technically, in three of the thirteen markets mentioned above in Ch. 23, the results did *not* support Hypothesis II, in reality, only *two*—Chicken Noodle Soup, and Facial Tissue--did not.

In the Chicken Noodle Soup market, the runner-up Progresso, was a member of the premium segment.

The results in the Facial Tissue market also did *not* support Hypothesis II, because the *runner-up* Puffs, was a member of the *premium* segment with a clearly *superior* quality, and a price tag *higher* than that of the market leader Kleenex: a member of the *mid-price* segment (Datta, 2023a).

In the Shampoo market, the *runner-up*, Head & Shoulders was a member of the *mid-price* segment. Yet, its price was *higher* than that of the *market leader*, Pantene. However, this result did *not* negate Hypothesis II, because it was due to the fact that the former was a *specialty* shampoo which always sells at a *higher* price (2018a).

That leaves us with the following *eleven* markets that supported Hypothesis II:

(1) Men's Shaving Gel, (2) Lager Beer, (3) Shampoo, (4) Shredded-Grated Cheese, (5) Refrigerated Orange Juice, (6) Toothpaste, (7) Potato Chips, (8) AA Alkaline Battery (9) Automatic-Dishwasher Detergent (Note 27), (10) Hand-Dishwashing Detergent (Note 28), and (11) Deodorant.

In the above eleven markets the *runner-up* had a price tag that was *lower* than that of the market leader (see Notes 27 and 28).

#### 25. Strategic Groups in the U.S. Cola Carbonated Beverages Market, 2008

We found *two* strategic groups in this market. Their 2008 overall *brand* market shares are as follows (Table 1):

- 1. Coca-Cola Co. (56%):
  - a. Coca-Cola Classic Regular—Market Leader 28.5% (Note 29)
  - b. Coca-Cola Diet—17.8%
  - c. Coca-Cola Diet Caffeine-free—4.8%
  - d. Coca-Cola Diet Zero-3.4%
  - e. Coca-Cola Classic Caffeine-free—1.0%
  - f. Coca-Cola Diet Plus-0.3%
  - g. Coca-Cola Regular—0.2%

# 2. PepsiCo (**38.7%**):

- Pepsi Regular—*Runner-up* 21.5 % (Note 29)
- Pepsi Diet 11.4%
- Pepsi Diet Caffein-free—2.9%
- Pepsi Regular Caffein-free—1.5%
- Pepsi Max Diet—0.9%
- Pepsi Diet One—0.5%

26.1 Coca-Cola Co.

The Coca-Cola Company is an American multinational corporation founded in 1892 (Note 7).

The company's worldwide revenue for the year ended Dec. 31, 2023 was \$45.8 billion (Note 30). *26.2 The PepsiCo, Inc.* 

20.2 The Tepstee, Inc.

The PepsiCo is an American multinational corporation founded in 1965 with the merger of PepsiCo and Frito-Lay, Inc. (Note 9).

The company's worldwide sales for the year 2023 were \$91.5 billion (Note 31).

# 27. Strategic Groups in the U.S. Regular Non-Cola Lemon-Lime Carbonated Beverages Market, 2008

We found *three* strategic groups in this market. Their 2008 overall *brand* market shares are as follows (Table 2):

- 1. PepsiCo: (**21%**)
  - Mountain Dew—Market Leader 14.3% (Note 29)
    - Sierra Mist Lemon-Lime 3.1%
    - Pepsi Wild Cherry 1.4%
    - Mug Soft 1.3%
    - Mountain Dew Code Red 0.6%
    - Tropicana Twister 0.3%
- 2. Keurig Dr. Pepper: (27.3%)
  - Dr. Pepper—Runner-up 11.4%
  - Seven-Up Lemon-Lime 3.9%
  - Canada Dry 3.2%
  - A&W Soft 3.1%
  - Schweppes Soft 2.1%
  - Squirt Soft 1.4%
  - Big Red 0.7%
  - I.B.C. Soft 0.6%
  - Crush Soft 0.5%
  - Vernors 0.4%
- 3. Coca-Cola Co.: (16.7%)
  - Sprite Lemon-Lime 10.1%
  - Fanta 2.0%
  - Coca-Cola Cherry 1.6%
  - Barq's Soft 1%
  - Seagram's Soft 0.8%
  - Coca-Cola Vanilla 0.4%
  - Mellow-Yellow 0.4%
  - Pibb Xtra 0.3%

# 27.1 Keurig Dr. Pepper Co.

Keurig Dr Pepper Inc., is a publicly-traded American beverage and coffeemaker conglomerate. It was formed in 2018, with the merger of Keurig Green Mountain and Dr Pepper Snapple Group--formerly Dr. Pepper/7up Inc. (Note 32).

Its revenue for 2023 was \$3.9 billion (Note 33).

### 28. Conclusion

The path to market share leadership does *not* lie in *cost leadership* strategy: a path that is grounded in a *price that is lower* than that of the competition, as Michael Porter has suggested. Rather, a business in pursuit of market-share leadership should try to serve the *middle* class by competing in the *mid-price* 

segment; and offering quality *superior* to that of the competition: at a somewhat *higher* price to connote an image of quality, and to ensure that the strategy is both profitable and sustainable in the long run.

The middle class is the socio-economic segment that represents about 40% of households in America.

Quality, however, is a complex concept that consumers generally find difficult to understand. So, they often employ *relative* price and a brand's *reputation* as a symbol of quality.

The U.S. Carbonated Beverages is a mega-market and had retail sales of \$14,178 million in 2008. It had six segments. However, we have combined them in two studies: Cola Regular & Diet Carbonated Beverages, and Non-Cola--Lemon-Lime Regular Carbonated Beverages, with 2008 retail sales, respectively, of \$6,639 million, and \$5,415 million.

Using Hierarchical Cluster Analysis, we tested two hypotheses: (I) That the market leader is likely to compete in the *mid-price* segment, and that (II) Its unit price is likely to be *higher* than that of the nearest competition.

For the *Cola* Carbonated Beverages market, the data did *not* support Hypothesis I for both 2008 and 2007, because Coca-Cola Classic Regular, the *market leader*, was a member of the *super-premium* segment.

Similarly, the data did not support Hypothesis II for both 2008 and 2007 either, because Pepsi Regular, the *runner-up*, had a unit price that was *higher* than that of the *market leader*, Coca-Cola Classic Regular.

For the *Non-Cola--Lemon-Lime Regular* Carbonated Beverages market the data did not support Hypothesis I also, because Mountain Dew, the *market leader*, was a member of the *premium* segment for both 2008 and 2007.

However, the data *did* support Hypothesis II for both years, because, Dr. Pepper, the *runner-up*, had a unit price that was *lower* than that of the *market leader*, Mountain Dew.

We also found that *relative* price was a strategic variable, as we have hypothesized.

We found *two* strategic groups in the *Cola* Carbonated Beverages market, and *three* in the *Non-Cola--Lemon-Lime Regular* Carbonated Beverages market.

A *pattern* is emerging in price-quality segmentation analysis of consumer markets. Results in thirteen markets—out of 24--supported Hypothesis I, and eleven supported Hypothesis II.

The United States has some of the *highest* rates of soft drink consumption in the world. Some of the health risks associated with such high consumption of soda include: diabetes, weight gain, and cavities. *Income-poverty* ratio is an important predictor of *frequent* soda consumption, and *lower* education is associated with *higher* consumption of sugary drinks.

Neuroscientists have concluded that the *sugar*, *caffeine* and *carbonation* of soft drinks are designed to deliver intense and *addictive* experiences that leave you wanting more.

Soft drinks have large quantities of *sugar* which, when consumed, causes a 'rush' that is extremely addictive and leads to even bigger cravings. This then activates reward centers of the brain, releasing

# dopamine and other hormones to create a feeling of *euphoria*.

The *fizz* of soft drinks adds an element of *acidity* that causes an intense sensation, intensifying the *euphoric* feeling people experience when they drink them. The *carbonation* has the added effect of *blunting* the sweetness just enough to *increase* cravings and leave you wanting more.

People develop strong associations and *emotional* connections with the *ritual* of drinking soft drink. The simple act of opening a *can* and hearing the *pop* can be highly suggestible, creating feelings of desire and *enticing* people to drink them.

Some people drink soft drinks like *water* because they find them *tasty*. However, soft drinks are not only *not* as hydrating as water, but can also have *negative* health effects.

*Finally*, since *sugar*, *caffein*, and *carbonation* make soft drinks highly *addictive*, the Cola industry is relying on *heavy promotion* to increase sales.

PQ Segment	Brand Name 2008	Upr.2008 12 Oz	ClusCtr	MktSh% 12 Oz	MktSh% Brand	Sales\$M 12 Oz	Sales\$M Brand
COLA DIET COCA-COLA ZERO	\$3.50		3.4%	3.4%	\$142.4	\$223.4	
COLA REGULAR PEPSI CAF FREE	\$3.47		1.4%	1.5%	\$57.7	\$96.7	
COLA REGULAR COCA-COLA CLASS	\$3.44		29.3%	28.5%	\$1,216.0	\$1,892.9	
COLA REGULAR COCA-COLA CLASSIC	\$3.42		1.1%	1.0%	\$46.8	\$63.9	
COLA DIET COCA-COLA	\$3.42		18.5%	17.8%	\$766.4	\$1,184.5	
COLA DIET PEPSI CAF FREE	\$3.42		2.6%	2.9%	\$108.7	\$195.7	
COLA DIET COCA-COLA PLUS	\$3.41		0.4%	0.3%	\$15.4	\$18.6	
COLA DIET PEPSI ONE	\$3.40		0.6%	0.5%	\$24.9	\$32.4	
COLA DIET COCA-COLA CAF FREE	\$3.39		5.1%	4.8%	\$210.3	\$320.4	
COLA DIET PEPSI	\$3.31		10.1%	11.4%	\$420.6	\$754.9	
COLA DIET PEPSI MAX	\$3.30		0.8%	0.9%	\$35.3	\$62.7	
COLA DIET DIET RITE PURE ZERO	\$3.27		0.7%	0.7%	\$27.6	\$43.3	
Premium	COLA DIET RC	\$2.91	\$2.82	0.1%	0.0%	\$2.2	\$2.7
	COLA REGULAR RC	\$2.72		0.7%	0.7%	\$28.7	\$46.9
Mid-Price	COLA REGULAR FAYGO	\$2.05	\$1.91	0.1%	0.1%	\$4.2	\$8.9
	COLA DIET CTL BR	\$1.76		1.0%	0.9%	\$41.2	\$61.6
Economy	COLA DIET TAB	\$1.34	\$1.23	0.3%	0.2%	\$12.0	\$12.0
	COLA REGULAR CTL BR	\$1.31		2.4%	2.2%	\$99.9	\$145.5
	COLA REGULAR SHASTA	\$1.16		0.3%	0.3%	\$13.8	\$18.8
	COLA REGULAR COCA-COLA	\$1.10		0.1%	0.2%	\$5.4	\$10.0
Ultra-Economy	COLA DIET SHASTA	\$0.58	\$0.44	0.0%	0.0%	\$1.8	\$2.6
	COLA REGULAR STARS & STRIPES	\$0.30		0.0%	0.1%	\$1.7	\$3.4
				100.0%	99.9%	\$4,153.6	\$6,631.1
	Total Brand Sales				100%		\$6,639.1

# Table 1. Hierarchical Cluster Analysis: The U.S. Cola Carbonated Beverages Market, 2008

PQ Segment	Brand Name	Upr.2008	ClusCtr	MktSh%	MktSh%	Sales\$M	Sales\$M
				12 Oz	Brand	12 Oz	Brand
Super-Premium	HENRY WEINHARD'S SOFT 12 Oz	\$3.94	\$3.94	0.4%	0.2%	\$10.3	\$10.3
	MOUNTAIN DEW 12 Oz (Market leader)	\$3.62	\$3.28	18.1%	14.3%	\$433.2	\$771.7
	SQUIRT SOFT 12 Oz	\$3.60		1.8%	1.4%	\$43.1	\$74.1
	COCA-COLA VANILLA 12 Oz	\$3.42		0.7%	0.4%	\$17.7	\$20.9
	SIERRA MIST LEMON LIME SOFT 12 Oz	\$3.41		4.0%	3.1%	\$95.6	\$170.4
	COCA-COLA CHERRY 12 Oz	\$3.40		2.2%	1.6%	\$52.2	\$84.7
	MOUNTAIN DEW CODE RED 12 Oz	\$3.38		0.8%	0.6%	\$18.7	\$33.1
	MUG SOFT 12 Oz	\$3.37		2.1%	1.3%	\$49.7	\$70.8
	MELLO YELLO 12 Oz	\$3.36		0.6%	0.4%	\$14.7	\$21.5
	PEPSI WILD CHERRYR 12 Oz	\$3.35		1.8%	1.4%	\$44.2	\$75.3
	PIBB XTRA 12 Oz	\$3.33		0.6%	0.3%	\$13.8	\$18.6
	RED BULL SOFT 12 Oz	\$3.29		2.2%	4.4%	\$52.0	\$237.4
	SPRITE LEMON LIME SOFT 12 Oz	\$3.29		12.5%	10.1%	\$298.3	\$545.5
	DR PEPPER SOFT 12 Oz (Runner-up)	\$3.19		15.6%	11.4%	\$373.4	\$615.7
	TROPICANA TWISTERR 12 Oz	\$3.17		0.5%	0.3%	\$11.0	\$16.5
	I.B.C. SOFT 12 Oz	\$3.12		1.3%	0.6%	\$31.1	\$31.3
	SEAGRAM'S SOFT 12 Oz	\$3.07		0.7%	0.8%	\$16.0	\$42.7
	FANTA SOFT 12 Oz	\$3.04		2.7%	2.0%	\$63.8	\$110.4
	SCHWEPPES SOFT 12 Oz	\$3.03		1.0%	2.1%	\$22.8	\$113.3
	CRUSH SOFT 12 Oz	\$3.02		0.7%	0.5%	\$17.4	\$26.3
Mid-Price	SEVEN UP LEMON LIME SOFT 12 Oz	\$2.84	\$2.78	4.5%	3.9%	\$108.7	\$211.9
	BARQ'S SOFT 12 Oz	\$2.76		1.7%	1.0%	\$41.6	\$53.7
	BIG RED SOFT 12 Oz	\$2.73		0.9%	0.7%	\$21.1	\$35.9
	A & W SOFT 12 Oz	\$2.70		3.7%	3.1%	\$89.0	\$170.4
Economy	STEWART'S FOUNTAIN CLASSICS 12 Oz	\$2.53	\$2.25	0.5%	0.2%	\$11.3	\$11.3
	FAYGO TWIST LEMON LIME SOFT 12 Oz	\$2.39		0.0%	0.0%	\$1.2	\$1.2
	CANADA DRY 12 Oz	\$2.31		2.4%	3.2%	\$56.9	\$172.5
	WELCH'S SOFT 12 Oz	\$2.19		0.7%	0.6%	\$17.1	\$30.6
	VAULT SOFT 12 Oz	\$2.19		0.5%	0.4%	\$11.0	\$20.9
	JONES SODA CO 12 Oz	\$2.09		0.5%	0.2%	\$11.0	\$11.2
	FAYGO SOFT 12 Oz	\$2.04		0.7%	0.8%	\$17.6	\$42.2
Ultra-Economy	VERNORS SOFT 12 Oz	\$1.26	\$0.95	0.5%	0.4%	\$11.1	\$21.7
	PRIVATE BRANDS LEMON LIME 12 Oz	\$1.05		1.1%	0.8%	\$27.2	\$45.6
	PRIVATE BRANDS	\$1.00		10.9%	8.7%	\$261.2	\$469.2
	SHASTA LEMON LIME SOFT 12 Oz	\$0.77		0.1%	0.1%	\$3.5	\$5.8
	SHASTA SOFT 12 Oz	\$0.61		1.0%	0.7%	\$23.6	\$37.3
				100.0%	81.8%	\$2,392.0	\$4,431.
						44.2%	81.8
	Total Brand				100%		\$5,414

# Table 2. Hierarchical Cluster Analysis: The U.S. Non-Cola Lemon-Lime Regular CarbonatedBeverages Market, 2008

	<b>DOS</b> econ ent	Promo	Promo	Brand	
BRANDS	PQSegment	%	Intensity	Mksh%	
COLA DIET PEPSI ONE	Super-premium	75.6%	Very Heavy	0.5%	
COLA DIET PEPSI CAFFEINE FREE	Super-premium	74.6%		2.9%	
COLA REGULAR PEPSI CAFFEINE FREE	Super-premium	73.9%		1.5%	
COLA REGULAR PEPSI (Runner-up)	Super-premium	73.5%		21.5%	
COLA REGULAR COCA-COLA CLASSIC CAF FREE	Super-premium	72.8%		1.0%	
COLA DIET COCA-COLA CAFFEINE FREE	Super-premium	72.8%		4.8%	
COLA REGULAR COCA-COLA CLASSIC (market leader)	Super-premium	70.5%		28.5%	
COLA DIET PEPSI	Super-premium	69.8%		11.4%	
COLA DIET COCA-COLA	Super-premium	68.4%		17.8%	
COLA DIET PEPSI MAX	Super-premium	67.0%		0.9%	
COLA DIET COCA-COLA ZERO	Super-premium	65.0%		3.4%	
COLA REGULAR RC	Premium	64.9%		0.7%	
COLA DIET DIET RITE PURE ZERO	Super-premium	56.5%	Moderate	0.7%	
COLA REGULAR PRIVATE BRANDS	Economy	52.5%		2.2%	
COLA DIET PRIVATE BRANDS	Mid-Price	43.3%		0.9%	
				98.7%	
Average Promo Score 69.70%					

# Table 3. Promo Sales to Total Sales: The U.S. Cola Carbonated Beverages Market, 2008

 Table 4. Promo Sales to Total Sales: The U.S. Non-Cola—Lemon-Lime Regular Carbonated

 Beverages Market, 2008

# **Brands with Sales over \$10 Million**

BRANDS	PQSegment	Promo %	Promo Intensity	Brand MKSh%
TROPICANA TWISTERR 12 Oz	Premium	69.7%	Heavy	0.3%
MOUNTAIN DEW CODE RED 12 Oz	Premium	69.7%		0.6%
MOUNTAIN DEW 12 Oz (Market leader)	Premium	68.2%		14.3%
COCA-COLA CHERRY 12 Oz	Premium	65.9%		1.6%
BARQ'S SOFT 12 Oz	Mid-Price	65.8%		1.0%
COCA-COLA VANILLA 12 Oz	Premium	65.3%		0.4%
I.B.C. SOFT 12 Oz	Premium	65.1%		0.6%
MELLO YELLO 12 Oz	Premium	64.5%		0.4%
CTL BRB LEMON LIME 12 Oz	Ultra-Economy	63.8%		0.8%
MUG SOFT 12 Oz	Premium	62.5%		1.3%
SQUIRT SOFT 12 Oz	Premium	60.0%		1.4%
SEAGRAM'S SOFT 12 Oz	Premium	60.0%		0.8%
DR PEPPER SOFT 12 Oz (Runner-up)	Premium	59.2%		11.4%
JONES SODA CO 12 Oz	Economy	56.9%	High Moderate	0.2%
A & W SOFT 12 Oz	Mid-Price	56.0%		3.1%
BIG RED SOFT 12 Oz	Mid-Price	56.0%		0.7%
SPRITE LEMON LIME SOFT 12 Oz	Premium	54.2%		10.1%
WELCH'S SOFT 12 Oz	Economy	54.2%		0.6%
CRUSH SOFT 12 Oz	Premium	52.8%		0.5%
RED BULL SOFT 12 Oz	Premium	51.7%		4.4%
SHASTA SOFT 12 Oz	Ultra-Economy	47.8%	Moderate	0.7%
VAULT SOFT 12 Oz	Economy	47.8%		0.4%
FAYGO SOFT 12 Oz	Economy	44.3%		0.8%
SIERRA MIST LEMON LIME SOFT 12 Oz	Premium	42.9%		3.1%
VERNORS SOFT 12 Oz	Ultra-Economy	42.9%		0.4%
FANTA SOFT 12 Oz	Premium	40.8%		2.0%
CANADA DRY 12 Oz	Economy	40.1%		3.2%
PIBB XTRA 12 Oz	Premium	36.5%		0.3%
HENRY WEINHARD'S SOFT 12 Oz	Super-Premium	31.0%	Low-Mderate	0.2%
SEVEN UP LEMON LIME SOFT 12 Oz	Mid-Price	25.5%		3.9%
STEWART'S FOUNTAIN CLASSICS 12 Oz	Economy	25.5%		0.2%
PEPSI WILD CHERRYR 12 Oz	Premium	22.2%		1.4%
Average Promo Score		53.8%		

# Acknowledgement

We are *immensely* grateful to A.C. Nielson Co. for their extraordinary generosity for the invaluable U.S. national retail sales data of the U.S. Carbonated Beverages Market for 2008 and 2007, without which this project would *not* have been possible.

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#### Notes

Note 1. The paper titled: The U.S. Automatic-Dishwasher and Hand-Dishwashing Detergent Markets involved *two* studies.

Note 2. Profit Impact of Market Strategies.

Note 3.

https://www.google.com/search?q=Google%3A+Diet+vs+Regular+Cola&sca\_esv=a982c7140206c012 &sca\_upv=1&ei=lxT8ZpG4Ku39wbkPyJGVoAo&ved=0ahUKEwjR396Jv-2IAxXtfjABHchIBaQQ4d UDCBA&uact=5&oq=Google%3A+Diet+vs+Regular+Cola&gs\_lp=Egxnd3Mtd2l6LXNlcnAiHEdvb2 dsZTogRGlldCB2cyBSZWd1bGFyIENvbGEyBRAhGKABMgUQIRigATIFECEYoAEyBRAhGKAB MgUQIRigAUj0XlDaEFizOXABeAGQAQCYAYUBoAG5CqoBBDIuMTC4AQPIAQD4AQGYAg2g AuoKwgIKEAAYsAMY1gQYR8ICChAhGKABGMMEGArCAgQQIRgKwgIIECEYoAEYwwTCAg gQABiABBiiBMICCBAAGKIEGIkFwgIFECEYqwKYAwCIBgGQBgiSBwQyLjExoAfgKQ&sclient= gws-wiz-serp

Note 4.

https://www.google.com/search?g=Google%3A+what+atrificial+sweeteners+are+used+in+diet+soda+a nd+its+long-term+side+effects&sca\_esv=05826a3c56c67289&sca\_upv=1&source=hp&ei=0yX8ZtW XONOrwbkP-LjNWQ&iflsig=AL9hbdgAAAAAZvwz429-K22u3D6jFpVT\_W0eb\_JY-DuD&ved=0a hUKEwiVzdPBz-2IAxXTVTABHXhcMwsO4dUDCA8&uact=5&oq=Google%3A+what+atrificial+s  $we eteners + are + used + in + diet + soda + and + its + long - term + side + effects \& gs\_lp = Egdnd3Mtd2l6IldHb29nb$ GU6IHdoYXQgYXRyaWZpY2lhbCBzd2VldGVuZXJzIGFyZSB1c2VkIGluIGRpZXQgc29kYSBhbmOgaXRzIGxvbmctdGVybSBzaWRIIGVmZmVjdHMyBxAhGKABGApIhLIFUPOOWOKbBXALeA COAOCYAYcBoAGiM6oBBTI2LjM4uAEDvAEA-AEBmAJLoAKfNagCCsICEBAAGAMY5OIY6g IYjAMYjwHCAhAQLhgDGOUCGOoCGIwDGI8BwgILEAAYgAQYsQMYgwHCAhEQLhiABBix AxjRAxiDARjHAcICDhAuGIAEGLEDGIMBGIoFwgIOEAAYgAQYsQMYgwEYigXCAggQABiA BBixA8ICBRAAGIAEwgILEAAYgAQYsQMYyQPCAgsQABiABBiSAxiKBcICDRAAGIAEGLED GIMBGArCAgsQLhiABBjHARivAcICChAAGIAEGLEDGArCAgYQABgWGB7CAggQABgWGAo YHsICDhAuGIAEGLEDGIMBGOUEwgIREC4YgAQYsQMYgwEYxwEYrwHCAgUQLhiABMICC BAAGBYYHhgPwgIIEAAYgAQYogTCAgcQABiABBgNwgILEAAYgAQYhgMYigXCAggQABgI GA0YHsICChAAGAgYDRgeGA\_CAgUQIRirAsICBxAhGAoYqwKYAwmSBwUzMi40M6AHrcsD &sclient=gws-wiz

Note 5. https://en.wikipedia.org/wiki/The\_Coca-Cola\_Company

Note 6. https://en.wikipedia.org/wiki/Coca-Cola\_formula

Note 7.

https://www.coca-colacompany.com/about-us/history/the-history-of-the-coca-cola-contour-bottle Note 8. Why Coca-Cola railed against the nickname 'Coke' | CBC Radio Note 9.

https://www.google.com/search?q=GooGle%3A+History+of+Pepsi+Cola+Co.&sca\_esv=ea82e60a359 3f99e&sca\_upv=1&source=hp&ei=aiXqZrTJCL6ZwbkPkIeCwQI&iflsig=AL9hbdgAAAAAZuozevE aNJzoowUoYMzlo0ag\_kE3CDzS&ved=0ahUKEwi0ppvLpMuIAxW-TDABHZCDICgQ4dUDCBA& uact=5&oq=GooGle%3A+History+of+Pepsi+Cola+Co.&gs\_lp=Egdnd3Mtd2l6IiFHb29HbGU6IEhpc3 Rvcnkgb2YgUGVwc2kgQ29sYSBDby4yBRAhGKABMgUQIRigATIFECEYoAEyBRAhGKABSIKo AlC4GVj9oAJwAXgAkAEAmAGQAaABiB2qAQQ1LjI4uAEDyAEA-AEBmAIioAL\_HagCCsICEB AAGAMY5QIY6gIYjAMYjwHCAhAQLhgDGOUCGOoCGIwDGI8BwgILEAAYgAQYsQMYgwH CAhEQLhiABBixAxjRAxiDARjHAcICBRAAGIAEwgIIEAAYgAQYsQPCAg4QLhiABBixAxiDAR

jlBMICBhAAGBYYHsICCBAAGIAEGKIEwgIFECEYqwLCAgcQIRigARgKmAMHkgcEMi4zMqA HtK4B&sclient=gws-wiz

# Note 10.

https://www.google.com/search?q=Google%3A+History+of+Mountain+Dew&rlz=1C2RXQR\_enUS1 087US1087&sca\_esv=de8efa94a8e5fbd0&sca\_upv=1&source=hp&ei=Rh7sZtGENfedwbkPxIDDiQ0 &iflsig=AL9hbdgAAAAAZuwsVmVr5fXg2tHqtdtZU5md5wydhVno&ved=0ahUKEwjRv\_OHhs-IAx X3TjABHUTAMNEQ4dUDCBA&uact=5&oq=Google%3A+History+of+Mountain+Dew&gs\_lp=Egd nd3Mtd2l6lh9Hb29nbGU6IEhpc3Rvcnkgb2YgTW91bnRhaW4gRGV3MgUQIRigATIFECEYoAEyB RAhGKABMgUQIRigATIFECEYoAEyBRAhGKsCSOzUAVCYDVi4xQFwAngAkAEAmAFzoAG9 EaoBBDI5LjO4AQPIAQD4AQGYAiKgAqQSqAIKwgIQEC4YAxjlAhjqAhiMAxiPAcICEBAAGAM Y5QIY6gIYjAMYjwHCAgsQABiABBixAxiDAcICERAuGIAEGLEDGNEDGIMBGMcBwgIOEC4 YgAQYsQMYgwEYigXCAggQABiABBixA8ICDhAuGIAEGLEDGIMBGOUEwgIFEAAYgATCAg 0QABiABBixAxiDARgKwgIHEAAYgAQYCsICCBAAGBYYHhgPwgIGEAAYFhgemAMEkgcEMz EuM6AHvb0B&sclient=gws-wiz

Note 11.

https://www.google.com/search?q=Google%3A+Ingredients+of+Mountain+Dew&sca\_esv=de8efa94a 8e5fbd0&sca\_upv=1&source=hp&ei=binsZpaHDNiKwbkPwuCtsAY&iflsig=AL9hbdgAAAAAZuw3f hbQUZIemyU6Ta0vopqtct9S6ZBt&ved=0ahUKEwiW9rbZkM-IAxVYRTABHUJwC2YQ4dUDCBA &uact=5&oq=Google%3A+Ingredients+of+Mountain+Dew&gs\_lp=Egdnd3Mtd2l6liNHb29nbGU6IEl uZ3JIZGllbnRzIG9mIE1vdW50YWluIERldzIFECEYqwJI6skBUABYn6MBcAB4AJABAJgBkQGgA bwYqgEFMjQuMTG4AQPIAQD4AQGYAiOgAqsZwgILEAAYgAQYsQMYgwHCAhEQLhiABBix AxjRAxiDARjHAcICDhAuGIAEGLEDGIMBGIoFwgILEC4YgAQYsQMYgwHCAgUQABiABMIC DhAuGIAEGLEDGNEDGMcBwgINEAAYgAQYsQMYgwEYCsICBxAAGIAEGArCAgoQABiAB BixAxgKwgIFEC4YgATCAgYQABgWGB7CAggQABgWGAoYHsICCBAAGBYYHhgPwgILEAA YgAQYhgMYigXCAggQABiiBBiJBcICCBAAGIAEGKIEwgIFECEYoAGYAwCSBwUyMi4xM6AH 580B&sclient=gws-wiz

Note 12.

https://www.google.com/search?q=When+did+Pepsi+acquire+Mountain+Dew&sca\_esv=de8efa94a8e5 fbd0&sca\_upv=1&source=hp&ei=binsZpaHDNiKwbkPwuCtsAY&iflsig=AL9hbdgAAAAAZuw3fhb QUZIemyU6Ta0vopqtct9S6ZBt&ved=0ahUKEwiW9rbZkM-IAxVYRTABHUJwC2YQ4dUDCBA&u act=5&oq=When+did+Pepsi+acquire+Mountain+Dew&gs\_lp=Egdnd3Mtd2l6IiNXaGVuIGRpZCBQZ XBzaSBhY3F1aXJIIE1vdW50YWluIERldzIFEAAYgAQyCBAAGBYYChgeMgsQABiABBiGAxiK BTILEAAYgAQYhgMYigUyCxAAGIAEGIYDGIoFMgsQABiABBiGAxiKBTIIEAAYgAQYogQyC BAAGIAEGKIEMggQABiABBiiBEjmzAFQlw9YyMABcAF4AJABAJgBZKABhxKqAQQzNC4xu AEDyAEA-AEBmAIkoAKCE6gCCsICEBAuGAMY5QIY6gIYjAMYjwHCAhAQABgDGOUCGOo CGIwDGI8BwgIREC4YgAQYsQMY0QMYgwEYxwHCAgsQABiABBixAxiDAcICCBAAGIAEGL EDwgIOEC4YgAQYxwEYjgUYrwHCAgsQLhiABBjRAxjHAcICDhAAGIAEGLEDGIMBGIoFwgI

OEC4YgAQYsQMY0QMYxwHCAgsQLhiABBixAxiDAcICDhAuGIAEGLEDGIMBGIoFwgIKEAA YgAQYRhj7AcICBxAAGIAEGArCAgYQABgWGB7CAggQABiiBBiJBZgDBpIHBDM1LjGgB9qG Ag&sclient=gws-wiz

Note 13. Dr Pepper - Wikipedia

Note 14.

https://www.google.com/search?q=who+owns+Dr+Pepper&sca\_esv=d778004382ecc027&sca\_upv=1 &source=hp&ei=IgL8ZvCDCb7K0PEPouqd6Ak&iflsig=AL9hbdgAAAAAZvwQMvHlymq230-r3Klu UyNacWFm6Q7\_&ved=0ahUKEwjwnLa8re2IAxU-JTQIHSJ1B50Q4dUDCA8&uact=5&oq=who+o wns+Dr+Pepper&gs\_lp=Egdnd3Mtd2l6IhJ3aG8gb3ducyBEciBQZXBwZXIyBRAAGIAEMgUQABi ABDIFEAAYgAQyBRAAGIAEMgUQABiABDIFEAAYgAQyBRAAGIAEMgUQABiABDIFEAAY gAQyBRAAGIAESNBsUABYhFVwAHgAkAEAmAGIAaAB1QuqAQQxNy4xuAEDyAEA-AEBm AISoAKPDMICERAuGIAEGLEDGNEDGIMBGMcBwgILEAAYgAQYsQMYgwHCAggQABiABB ixA8ICDhAuGIAEGMcBGI4FGK8BwgILEC4YgAQY0QMYxwHCAgsQLhiABBixAxiDAcICDhA AGIAEGLEDGIMBGIoFwgIOEC4YgAQYsQMY0QMYxwHCAggQABiABBjJA8ICCxAuGIAEGM cBGK8BwgILEAAYgAQYkgMYigWYAwCSBwQxNi4yoAfqdg&sclient=gws-wiz Note 15.

https://www.google.com/search?q=When+did+Coca+Cola+co+introduce+Pibb%2FXtra%3F&sca\_esv =d356765a8254fa4c&sca\_upv=1&source=hp&ei=gNfuZsqWBf2GwbkP6emYuQ0&iflsig=AL9hbdgA AAAAZu7lkLqUCcT8oPNEcLd2FwjHbjIj64Wj&ved=0ahUKEwjK1pj-ntSIAxV9QzABHek0JtcQ4d UDCA8&uact=5&oq=When+did+Coca+Cola+co+introduce+Pibb%2FXtra%3F&gs\_lp=Egdnd3Mtd2l 6lipXaGVuIGRpZCBDb2NhIENvbGEgY28gaW50cm9kdWNIIFBpYmIvWHRyYT8yBRAhGKABM gUQIRigATIFECEYoAEyBRAhGKABMgUQIRigAUin9AFQAFj57gFwAHgAkAEAmAF7oAGPGq oBBDM5Lj04AQPIAQD4AQGYAiqgAqAbwgIREC4YgAQYsQMY0QMYgwEYxwHCAgsQABiA BBixAxiDAcICCBAAGIAEGLEDwgIOEC4YgAQYsQMY0QMYxwHCAhEQLhiABBixAxjHARiO BRivAcICCxAAGIAEGLEDGIoFwgIFEAAYgATCAgsQLhiABBixAxiDAcICDhAAGIAEGLEDGI MBGIoFwgIOEC4YgAQYsQMYgwEYigXCAgoQABiABBhGGPsBwgINEAAYgAQYsQMYRhj7A cICBxAAGIAEGArCAgYQABgWGB7CAggQABiiBBiJBcICCBAAGIAEGKIEwgIFECEYqwLCAg cQIRigARgKmAMAkgcEMzguNKAHwPwB&sclient=gws-wiz

Note 16.

https://www.google.com/search?q=Google%3A+History+of+Sprite&sca\_esv=392b79e5fd33f0c2&sca \_upv=1&source=hp&ei=VDXsZpL\_DMmqur8Pxojr2AU&iflsig=AL9hbdgAAAAAZuxDZFNYnTsL OkzfltIR1emLXpvBvDpz&ved=0ahUKEwiS-fCFnM-IAxVJle4BHUbEGlsQ4dUDCA4&uact=5&oq= Google%3A+History+of+Sprite&gs\_lp=Egdnd3Mtd2l6IhlHb29nbGU6IEhpc3Rvcnkgb2YgU3ByaXRl MgUQIRigATIFECEYoAEyBRAhGKABMgUQIRigATIFECEYoAFIuaEBUABY9IoBcAB4AJABAJ gBWaABpQ2qAQIyNbgBA8gBAPgBAZgCGaAC9g3CAgsQABiABBixAxiDAcICERAuGIAEGLE DGNEDGIMBGMcBwgIOEC4YgAQYsQMYgwEYigXCAggQABiABBixA8ICDhAuGIAEGLEDGI MBGOUEwgIFEAAYgATCAgYQABgWGB7CAggQABgWGB4YD8ICCxAAGIAEGIYDGIoFwgII

 $EAAYgAQYogTCAgcQIRigARgKmAMAkgcCMjWgB\_WWAQ\&sclient=gws-wiz$ 

# Note 17.

https://www.google.com/search?q=Google%3A+How+much+soft+drink+an+average+American+cosu mes+each+year&rlz=1C2RXQR\_enUS1087US1087&sca\_esv=23b76929343cb130&sca\_upv=1&ei=O mbvZtKSJZKFwbkPreqiiQo&ved=0ahUKEwjSl4-Np9WIAxWSQjABHS21KKEQ4dUDCA8&uact=5 &oq=Google%3A+How+much+soft+drink+an+average+American+cosumes+each+year&gs\_lp=Egxn d3Mtd2l6LXNlcnAiQUdvb2dsZTogSG93IG11Y2ggc29mdCBkcmluayBhbiBhdmVyYWdlIEFtZXJpY 2FuIGNvc3VtZXMgZWFjaCB5ZWFyMgUQIRigATIFECEYoAEyBRAhGKABMgUQIRigATIFECE YqwIyBRAhGKsCSKfXA1AAWKy-A3AAeACQAQCYAW2gAdocqgEENDEuMrgBA8gBAPgBAZ gCK6AC-h3CAgYQABgIGB7CAgUQABiABMICBhAAGBYYHsICChAAGIAEGEYYgALCAggQ ABgWGAoYHsICFhAAGIAEGEYYgAIYlwUYjAUY3QTYAQHCAgsQABiABBiRAhiKBcICCBA AGBYYHhgPwgIHEAAYgAQYDcICCxAAGIAEGIYDGIoFwgIIEAAYgAQYogTCAggQABiiBBiJ BZgDALoGBggBEAEYE5IHBDM4LjWgB4\_8AQ&sclient=gws-wiz-serp

Note 18.

https://www.google.com/search?q=Gooogle%3A+Is+low+education+lead+to+higher+sugary+drink+c onsumtion&rlz=1C2RXQR\_enUS1087US1087&sca\_esv=23b76929343cb130&sca\_upv=1&source=hp &ei=BmbvZtO0KN2GwbkP\_K\_QwQ4&iflsig=AL9hbdgAAAAAZu90FkS8DvtPTymHoVAFM\_pAG vlpBbGg&ved=0ahUKEwjTz6z0ptWIAxVdQzABHfwXNOgQ4dUDCA8&uact=5&oq=Gooogle%3A +Is+low+education+lead+to+higher+sugary+drink+consumtion&gs\_lp=Egdnd3Mtd2l6IkBHb29vZ2xl OiBJcyBsb3cgZWR1Y2F0aW9uIGx1YWQgdG8gaGlnaGVyIHN1Z2FyeSBkcmluayBjb25zdW10aW9 uMgcQIRigARgKMgcQIRigARgKMgcQIRigARgKMgcQIRigARgKMgUQIRirAjIFECEYqwIyBRA hGKsCMgUQIRifBTIFECEYnwVIo9UEUABY6MAEcAF4AJABAJgBcaABsyOqAQQ0OS41uAED yAEA-AEBmAI3oALjJMICERAuGIAEGLEDGNEDGIMBGMcBwgILEAAYgAQYsQMYgwHCAg gQABiABBixA8ICBRAAGIAEwgIOEC4YgAQYsQMY0QMYxwHCAhMQLhiABBixAxjRAxiDAR jHARgKwgINEAAYgAQYsQMYgwEYCsICChAAGIAEGLEDGArCAgcQABiABBgKwgIKEC4Yg AQYsQMYCsICEBAuGIAEGLEDGNEDGMcBGArCAgwQABiABBgKGEYYgALCAgYQABgDG ArCAgcQABiABBgNwgIGEAAYFhgewgIIEAAYFhgeGA\_CAggQABgWGAoYHsICCxAAGIAEGI YDGIoFwgIIEAAYgAQYogTCAggQABgIGA0YHpgDAJIHBDUwLjWgB8-WAw&sclient=gws-wiz Note 19.

https://www.google.com/search?q=Can+drinking+sugary+drinks+be+addictive&sca\_esv=ec873e5d141 56ebb&sca\_upv=1&source=hp&ei=NJf4ZsHbCYizkvQPiYe60A0&iflsig=AL9hbdgAAAAAZvilRNK XKM8uw7v4erAjpF1hocY5HCyk&ved=0ahUKEwjBxb6J6-aIAxWImYQIHYmDDtoQ4dUDCA0&u act=5&oq=Can+drinking+sugary+drinks+be+addictive&gs\_lp=Egdnd3Mtd2l6IidDYW4gZHJpbmtpb mcgc3VnYXJ5IGRyaW5rcyBiZSBhZGRpY3RpdmUyBRAhGKABMgUQIRigATIFECEYoAEyBRA hGKABMgUQIRigATIFECEYqwJIyr4CUMFIWJatAnADeACQAQCYAXugAZEdqgEFMjYuMTS4 AQPIAQD4AQGYAiugApseqAIKwgIQEAAYAxjlAhjqAhiMAxiPAcICCxAuGIAEGLEDGIMBwgII EAAYgAQYsQPCAgsQABiABBixAxiDAcICDhAuGIAEGLEDGNEDGMcBwgIREC4YgAQYsQM Y0QMYgwEYxwHCAg4QABiABBixAxiDARiKBcICDhAuGIAEGLEDGIMBGIoFwgIFEAAYgAT CAggQLhiABBixA8ICBhAAGBYYHsICCxAAGIAEGIYDGIoFwgIIEAAYgAQYogSYAwSSBwUy NS4xOKAH7YwC&sclient=gws-wiz

Note 20.

https://www.ebdg.com.au/blog/makes-soft-drink-addictive/#:~:text=Neuroscientists%20have%20concl uded%20that%20the,that%20leave%20you%20wanting%20more

Note 21.

https://theconversation.com/poorest-americans-drink-a-lot-more-sugary-drinks-than-the-richest-which-i s-why-soda-taxes-could-help-reduce-gaping-health-inequalities-142345

Note 22. This data is from food stores with sales of over \$2 million, and drug stores over \$1 million; it also includes discount stores, such as Target and K-Mart, but *excludes* Wal-Mart as well as warehouse clubs, e.g., Sam's Club, Costco, and BJ's.

Note 23. For those stores for which, during a week, there were feature ads, coupon ads, display, or temporary price decrease of at least 5%.

Note 24. The six classes are: "The Poor", "The Near Poor", "Traditional Middle Class", "The Upper-Middle Class", "The Very Rich/The Rich", and "The Mega Rich—Masters of the Universe". Note 25.

https://www.google.com/search?q=Google%3A+Do+some+people+drink+sodt+drinds+like+water+&s ca\_esv=83deed022e42a993&source=hp&ei=Clr9Zqa2L\_3LkPIP8468uAg&iflsig=AL9hbdgAAAAAZ v1oGu\_cl3ZwailB7Ev2arjQkNCPhS-E&ved=0ahUKEwim47u59e-IAxX9JUQIHXMHD4cQ4dUDCA 8&uact=5&oq=Google%3A+Do+some+people+drink+sodt+drinds+like+water+&gs\_lp=Egdnd3Mtd2l 6IjRHb29nbGU6IERvIHNvbWUgcGVvcGxIIGRyaW5rIHNvZHQgZHJpbmRzIGxpa2Ugd2F0ZXIgS PuOA1DIFVjRiQNwAngAkAEAmAFzoAGnJaoBBTQzLjEwuAEDyAEA-AEBmAIYoALfD6gCCsI CEBAAGAMY5QIY6gIYjAMYjwHCAhAQLhgDGOUCGOoCGIwDGI8BwgILEAAYgAQYsQMY gwHCAhEQLhiABBixAxjRAxiDARjHAcICDhAuGIAEGLEDGIMBGIoFwgILEC4YgAQYsQMYg wHCAgQQABgDwgIIEAAYgAQYsQPCAg0QABiABBixAxiDARgKwgIFEAAYgATCAgcQABiAB BgKwgIGEAAYFhgewgIIEAAYFhgeGA\_CAgsQABiABBiGAxiKBcICBRAhGJ8FwgIIEAAYgAQY ogTCAgUQIRigAZgDBZIHBDIxLjOgB8a4AQ&sclient=gws-wiz

Note 26. For 2007 the results did not support Hypothesis I, because the market leader, Energizer was found to be a member of the *premium* segment

Note 27. In the Automatic Dishwasher Detergent market, the results for 2008 supported Hypothesis II, but *not* for 2007.

Note 28. In the Hand Dishwashing segment, the results for 2007 did support Hypothesis II, but *not* for 2008.

Note 29. The data to determine market leader and runner-up is based on sales data for 12 Oz. size soft drink.

Note 30.

https://www.coca-colacompany.com/content/dam/company/us/en/media-center/2023%20Q4%20Earnin gs%20Release\_Full%20Release\_2.13.24.pdf

Note 31.

https://www.google.com/search?q=Google%3A+PepsiCo%27s+revenue+for+2023&sca\_esv=4e4a8a2 bd4267cc2&ei=ZZv-Zt6\_IKGawbkPy6LKaQ&ved=0ahUKEwiehqj1p\_KIAxUhTTABHUuRMg0Q4d UDCA8&uact=5&oq=Google%3A+PepsiCo%27s+revenue+for+2023&gs\_lp=Egxnd3Mtd2l6LXNlcn Ailkdvb2dsZTogUGVwc2lDbydzIHJldmVudWUgZm9yIDIwMjMyBRAhGKABMgUQIRigATIFECE YoAEyBRAhGKABMgUQIRigAUjZ\_QFQmxRYzOkBcAJ4AZABA5gBzgGgAdAmqgEGNTkuMi4 xuAEDyAEA-AEBmAIloALyFqgCFMICChAAGLADGNYEGEfCAggQABgIGA0YHsICCxAAGIA EGIYDGIoFwgIIEAAYgAQYogTCAhQQABiABBiRAhi0AhiKBRjqAtgBAcICHRAAGIAEGLQCG NQDGOUCGLcDGIoFGOoCGIoD2AEBwgIWEAAYAxi0AhjlAhjqAhiMAxiPAdgBAsICFhAuGAM YtAIY5QIY6gIYjAMYjwHYAQLCAgsQABiABBiRAhiKBcICCxAAGIAEGLEDGIMBwgIREC4Y gAQYsQMY0QMYgwEYxwHCAhYQLhiABBixAxjRAxhDGIMBGMcBGIoFwgIQEAAYgAQYsQ MYQxiDARiKBcICChAAGIAEGEMYigXCAggQABiABBixA8ICBBAAGAPCAgUQABiABMICE BAAGIAEGLEDGIMBGMkDGArCAg0QABiABBixAxiDARgKwgIKEAAYgAQYsQMYCsICCxA AGIAEGJIDGIoFwgIHEAAYgAQYCsICBhAAGBYYHsICCBAAGBYYHhgPwgIIEAAYFhgKGB7 CAggQABiiBBiJBcICBRAhGKsCmAMEiAYBkAYIugYECAEYB7oGBggCEAEYCpIHBjM1LjEu MaAH8c4C&sclient=gws-wiz-serp

Note 32. https://en.wikipedia.org/wiki/Keurig\_Dr\_Pepper

Note 33.

https://www.google.com/search?q=Google%3A+Keurig+Dr+Pepper+Co.%27s+revenue+for+2023&sc a\_esv=4e4a8a2bd4267cc2&ei=57b-ZuXqC9GOwbkPibrJuQ0&ved=0ahUKEwil-oSTwvKIAxVRRzA BHQldMtcQ4dUDCA8&uact=5&oq=Google%3A+Keurig+Dr+Pepper+Co.%27s+revenue+for+2023 &gs\_lp=Egxnd3Mtd2l6LXNlcnAiL0dvb2dsZTogS2V1cmlnIERyIFBlcHBlciBDby4ncyByZXZlbnVlI GZvciAyMDIzMgUQIRigATIFECEYoAEyBRAhGKABMgUQIRigAUjR8QFQ-xJY19IBcAF4AZAB AJgBdaABrBaqAQQyNS42uAEDyAEA-AEBmAIgoAKFF8ICChAAGLADGNYEGEfCAggQABiA BBiiBMICCBAAGKIEGIkFwgIEEAAYHsICBhAAGAgYHsICCxAAGIAEGIYDGIoFwgIFECEYqw KYAwCIBgGQBgiSBwQyNS43oAfliwE&sclient=gws-wiz-serp