

# Consumer Package Goods (CPG) Industry

## MARKETING STRATEGY ANALYSIS

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AEM 4550: ECONOMICS OF ADVERTISING

DYSON SCHOOL OF APPLIED ECONOMICS AND MANAGEMENT

MAY 2015

Our team has decided to focus broadly on the consumer packaged goods industry and specifically on the soft drink market within the CPG industry. The CPG industry is broadly defined as comprising of types of goods that are consumed everyday by the average consumer and is valued at approximately \$2 Trillion in North America<sup>1</sup>. These goods can range anywhere from soap, toothpaste, cosmetics, to soda, snack foods, and clothing. Largely referred to as non-durable goods, consumer packaged goods are sold in high volume with generally low margins. Companies are able to generate significant revenue from the sale of CPGs, however, due to constant repeat sales. Given that consumers are always using and restocking these items, competition is extremely high within the industry creating a low cross price elasticity (switching cost) for many products.

Two main drivers largely influence the CPG industry: consumer spending and inflation. At the moment personal consumption of non-durable goods is up to over \$2.6 Billion in 2014-Q3 (Figure A). This means that consumers are generally spending their increasing disposable incomes on consumer-packaged goods, a positive sign of growth in the industry. Additionally the national CPI has remained at or near zero in 2015, which means the purchasing power of the dollar has remained stable (Figure B). This also means that prices of CPGs, that are constantly being purchased, have remained affordable.

Three large holding companies, P&G, Unilever, and L'Oreal, which make up 52% of market share, dominate the CPG industry (Figure C). The attached figure (Figure D) shows 2013 revenue for the top 15 CPG companies, and the top three players dwarf the competition with over \$150 Billion in sales. Given the high concentration in the overall CPG market, sales volume is so high that even minor players such as Henkel, Limited Brands, and Esstee Lauder are able to capture around \$10 Billion in revenue.

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<sup>1</sup> <http://www.investopedia.com/terms/c/cpg.asp>

Two main advertising strategies, celebrity endorsement and comparative advertisements, comprise most of the CPG industry advertising model. CPG companies likely employ celebrity endorsements to signal that the best products are being used by the rich and famous, to signal positive product experience, and credibility. Additionally, since there are few differentiating factors between certain products except marginal quality and effectiveness, comparative advertising allows CPG companies to signal their superiority to their audience. This tactic can help build brand equity and establish a brand as an industry leader among competition simply by demonstrating superior quality or effectiveness.

Finally, a notable trend in the CPG industry is the shift towards an emergence of digital technology. Customers now have access to multiple modes of purchasing via online and in-store platforms making it more convenient than ever to complete the purchasing process. Within the CPG industry it is clear that the way of the future is via online purchasing and marketing (Figure E) as seen from the attached chart. The chart shows complementary industries experiencing significant spikes in growth once hitting a “digital tipping point” or a digital platform to supplement existing offerings. These strategies have been pioneered by the likes of Amazon and now many start-ups such as Dollar shave Club and Blue Apron are establishing themselves in the online space. Clearly, those who have a strong social media presence, a popular website, and an easy-to-use mobile application should be able to gain market share within the competitive niches of the CPG industry. One of the most competitive and prominent sectors within the CPG industry is the soft drink market.

We have decided to dive further into the soft drink industry because there are extremely strong brands, specifically Coca Cola and Pepsi, and a strong advertising war between the two

main companies that was interesting for us to explore. Furthermore, the soft drink industry generates \$60 BB in annual sales<sup>2</sup>, which makes it an extremely exciting sector to analyze.

A soft drink is a carbonated, non-alcoholic beverage.<sup>3</sup> The target consumers for soft drinks are youths and minorities. As you can see from Figure F<sup>4</sup>, by combining diet and regular soda drinkers and comparing them across age groups, 63% of people aged 18 to 29 drink soda and it decreases in the older age groups. With regards to minorities, 55% of whites drink soda and 60 % of minorities drink soda. This percentage of minorities will only increase as more and more come into the country as is projected to happen over the next several decades.

Using the same table, we can compare the target market for diet drinkers as compared to regular soda drinkers. 13% of those aged 18 to 29 drink diet soda as compared to the 50% that drink regular soda. The percentage of diet soda drinkers increases with age while the opposite happens for regular soda drinkers. On the other hand, regular drinkers decline with age. Additionally, diet drinkers increase with higher income while regular drinkers decrease with higher income. Lastly, soda drinkers in general decrease with higher income as they can afford healthier beverages for their family.

The major players in this industry ranked by their market share are Coca Cola (42.3%), PepsiCo (27.5%), Dr. Pepper Snapple Group (17.1%), Cott Beverages (4.2%), and the National Beverage Corporation (2.9%)<sup>5</sup> (Figure G). The concentration ratio for the soft drink industry is 91.1% and the HHI is 2864, which proves that it is an extremely concentrated industry and has high barriers to entry.

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<sup>2</sup> <http://www.statisticbrain.com/beverage-drink-industry-stats/>

<sup>3</sup> <http://dictionary.reference.com/browse/soft+drink>

<sup>4</sup> <http://www.gallup.com/poll/163997/regular-soda-popular-young-nonwhite-low-income.aspx>

<sup>5</sup> <http://www.statista.com/statistics/225464/market-share-of-leading-soft-drink-companies-in-the-us-since-2004/>

Coca-Cola started in 1886 and has a stock price of \$40.74 with a market share of \$177.8BB<sup>6</sup>. Their stock price has not changed year over year, and we think this is mainly because they focus their advertising mainly on their soda rather than on their healthier beverages. Their market cap, however, is extremely high and is the clear market leader. PepsiCo began in 1893, 7 years after Coca-Cola, with a stock price of \$96.91 and a market cap of \$141.61BB<sup>7</sup>, \$35 billion less than Coca-Cola. Their stock price has grown 15% year over year, and we think this is mainly because of their food products rather than their soda. Lastly, Dr. Pepper Snapple began in 1885 with the first soft drink ever, Dr. Pepper, with a stock price of \$78.62 and a market cap of \$15.05BB<sup>8</sup>. Their stock price has increased 52% year over year, which we mainly attribute to their healthier beverages and wide variety as well. Their market cap, however, is significantly less than PepsiCo and Coca-Cola.

The soft drink industry is currently declining with respect to volume and sales. As seen in the WSJ chart (Figure H)<sup>9</sup>, soft drink volume has declined 14% since 2004. Additionally, sales have decreased 16% since 1998<sup>10</sup>. We think this is mainly due to the health trend currently happening in the United States where consumers want to ingest less calories and less sugar. As you can see from the Coca-Cola nutrition label (Figure I), there are 140 calories and 39 grams of sugar in a twelve-ounce can of Coke. According to nutritionists, women should only be ingesting 25 grams of sugar per day while men should only be ingesting 37.5 grams<sup>11</sup>. Therefore, one can of coke puts both genders over their limits. Furthermore, 132.5 calories out of the 140 calories are directly due to added sugar<sup>12</sup>.

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<sup>6</sup> Google Finance as of 4/15

<sup>7</sup> Google Finance as of 4/15

<sup>8</sup> Google Finance as of 4/15

<sup>9</sup> <http://www.wsj.com/articles/pepsi-cola-replaces-diet-coke-as-no-2-soda-1427388559>

<sup>10</sup> [http://www.nytimes.com/2012/05/16/business/pepsi-and-competitors-scramble-as-soda-sales-drop.html?\\_r=0](http://www.nytimes.com/2012/05/16/business/pepsi-and-competitors-scramble-as-soda-sales-drop.html?_r=0)

<sup>11</sup> <http://authoritynutrition.com/how-much-sugar-per-day/>

<sup>12</sup> [http://www.heart.org/HEARTORG/GettingHealthy/NutritionCenter/HealthyEating/Sugar-101\\_UCM\\_306024\\_Article.jsp](http://www.heart.org/HEARTORG/GettingHealthy/NutritionCenter/HealthyEating/Sugar-101_UCM_306024_Article.jsp)

Coca-Cola and PepsiCo have tried to adapt to this trend by creating Coca-Cola Life and Pepsi Next. Both drinks were major failures because of their drastic difference in taste due to a lower-calorie sugar. Coca-Cola didn't even try to enter the United States market because it was such a failure outside of the US<sup>13</sup>. Although this industry has high barriers to enter, companies with healthy soda are able to enter the market because of their differentiated product. Companies such as Zevia and TalkingRain's Sparkling Ice are taking market share because they taste good and have zero calories and zero sugar<sup>14</sup>. Sparkling Ice even has fruity flavors to seem healthier and added vitamins. As you can see from the statista graph<sup>15</sup> (Figure J), the yellow category hosting "other" companies, such as TalkingRain and Zevia, have increased 114% from 2004. These companies along with Dr. Pepper Snapple have been growing because of their health initiatives. Dr. Pepper Snapple increased dramatically after 2008 when Dr. Pepper merged with Snapple, a healthier beverage company. They have mainly been taking market share from PepsiCo as Dr. Pepper snapple has increased by 18% and PepsiCo has decreased by 13% since 2004. Coca-Cola, the market leader, has remained quite constant over the past decade.

As a result of the industry declining, the top three soft drink companies have come together with the American Beverage Corporation to create Mixify. This is the first advertisement in their campaign to reduce America's calorie consumption by 20% by 2025<sup>16</sup>. The commercial<sup>17</sup> suggests balancing what you eat, drink, and do. They state that when you are more active, you can eat and drink less healthy things, but if you are less active, make sure you choose healthier food and drink items. As a result of this campaign, Coca-Cola, PepsiCo, and Dr. Pepper Snapple will be changing their marketing strategies over the next decade. They will all be

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<sup>13</sup> <http://www.businessinsider.com/coke-life-and-pepsi-next-wont-work-2014-8>

<sup>14</sup> <http://www.foodnavigator.com/Business/Talking-Rain-CEO-Pepsi-and-Coke-weren-t-even-looking-at-sparkling-waters>

<sup>15</sup> <http://www.statista.com/statistics/225464/market-share-of-leading-soft-drink-companies-in-the-us-since-2004/>

<sup>16</sup> <http://www.usatoday.com/story/money/business/2014/09/23/soft-drinks-beverages-coca-cola-pepsico-dr-pepper-snapple/16097945/>

<sup>17</sup> <https://www.youtube.com/watch?v=Lylc4Yp0TPM>

selling smaller cans that hold 7.5 ounces and are 100 calories with less sugar. Additionally, each company will be focusing more of their advertising on their healthier items. Coca-Cola will focus more on their water, orange juice, and tea, PepsiCo will focus on their “Better For You” products such as Quaker Oats and Baked Lays, and Dr. Pepper Snapple will focus more on Snapple products. It will be very interesting to see how each company adapts to this calorie reduction initiative and how the Mixify campaign will evolve over the next decade.

Now we are going to take a step back and view the progress of these two giants over their storied history. With Coke and Pepsi combining to own over 70% of the industry, to study the strategies of the industry, we will be looking at these two dominant brands in soda and their strategies in the “Cola Wars”. Since their conceptions in the late 19<sup>th</sup> century, each company has developed diverse product portfolios, but for the sake of depth of analysis, we will be attempting to only focus on the two flagship brands: Pepsi as their standard Cola, and Coca-Cola Classic. These are the two products that they began with and still exist today, and they also represent the majority of each company’s sales.

Despite the current success of each brand, they have taken very different creative approaches to get here. This quote from Pepsi’s current Chief Creative Officer, Brad Jakeman, perfectly sums up the two ideologies: “Coke is timeless. Pepsi is timely.”<sup>18</sup> The overarching theme of the two companies is that Coke represents permanent happiness, while Pepsi is all about excitement.

Looking into this timely approach, Pepsi’s advertising ideology has some defining characteristics. Firstly and most notably, Pepsi has a history of intense comparative advertising. The most famous instance is the Pepsi Challenge blind taste tests in 1975, but even beyond that,

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<sup>18</sup> Zmuda, Natalie. “Pepsi Tackles Identity Crisis.” *Advertising Age*. Crain Communications, 7 May 2012. Web. 4 May 2015. <<http://adage.com/article/news/pepsi-tackles-identity-crisis/234586/>>.

they are constantly comparing themselves to Coke. They are trying to win over consumers through marginal taste difference and lifestyle associations, which is youthful excitement. Phrases such as “Come Alive,” “Next Generation,” and “Live for Now,” have all been used in their slogans, really focusing on the exciting lifestyle surrounding their drink. To reinforce this lifestyle association, they have a long list of celebrity endorsements. Michael Jackson, Madonna, Ludacris, Nicki Minaj, Beyonce, and many more have all served as spokespersons for Pepsi over the years. As we discussed in class, this can be effective in drawing attention to the brand and associating a “personality” to the brand.

Switching over to Coke, it can be said that they have one of the most successful marketing strategies of all time. Coke is a global brand with extreme loyalty, and that is because of their persistent and consistent marketing message. While the little guy, Pepsi, always compares to the big guy, Coke, it never goes the other way around. Why? Because Coke gets to market itself as “The Original,” “The Real Thing,” “Classic,” and “America’s Choice.” They were the first movers; they get to set the standard, and they are always appealing to this classic sentiment. They do this by constantly emphasizing happiness through meaningful relationships with family and friends. Their ads don’t cause the same excitement as Pepsi, but instead evoke contentment and satisfaction with your life and the people in it. Coke is about true happiness that you want to share. Because of these successful efforts, Pepsi has been playing catch-up to this standard from the start.

Despite their differences, they do have similar strategies in several ways. In modern years, both use persuasive ads since they are experience goods, so they predominantly air ads that are revolving around the lifestyle more than the product. Very rarely, if ever, will you see an ad outlining the product specs of either drink, but instead you see commercials of the environments you should drink in and who you drink them with. Also, amongst all of the beverages that each



company offers, each uses 70% of their TV budget to advertise their flagship brand. That is important as it builds the brand equity as a whole in combative terms instead of just highlighting the singular benefits of say Coke Zero or Pepsi Max. Lastly, both brands use product placement and sponsorships, allowing their products to permeate the culture.

Combining some of these strategies, the “New Coke” case<sup>19</sup> presents an interesting look into the relationship between these two brands. In short, in 1975 Pepsi filmed and aired a series of blind taste tests under the name of the Pepsi Challenge. These ads had Pepsi winning these taste tests, eventually causing Coke to change their famous formula to make it sweeter. Coke lovers felt betrayed, and they responded in swarms. The change spurred a huge outcry from Coke drinkers and distributors alike, with drinkers complaining of the taste difference and distributors expressing difficulty in having to promote and sell the drink. Coca-Cola had long been marketed as, “The Real Thing”, constant and unchanging, and it had now been changed. In light of these extreme responses, it only took 3 months for Coca-Cola to re-release the old formula.

What this case revealed is that people had a deep, abiding, and passionate emotional attachment to original Coca-Cola.<sup>20</sup> Extreme brand loyalty has been the main driver and sustainer of Coke’s success. Coke is ingrained in the American culture and the ideals of its people. This loyalty has been helpful in maintaining market share over Pepsi, but it has also granting them more inelastic consumers. In recent years, both brands have gradually increased their prices to maintain revenues in response to decreases in demand, and Coke is well insulated against these price increases.

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<sup>19</sup> Stevens, Clifford. “Soft Drink Wars: Pepsi Vs Coke.” *Central European*. 24 (1993): 29. *ProQuest*. Web. 3 May 2015.

<sup>20</sup> Mikkelsen, Barbara. “Knew Coke: New Coke Origins.” *Snopes*. 19 May 2011. Web. 4 May 2015.  
<<http://www.snopes.com/cokelore/newcoke.asp>>.

This is confirmed by Coca-Cola's and Pepsi's global brand valuation rankings. Coca-Cola sits at 3rd, valued at \$81,563 million, while Pepsi is 24th at \$19,119 million.<sup>21</sup> Each of these companies clearly has extremely valuable brands, but Coke wins by a long shot. These 2014 rankings actually ended a streak of over 24 years for Coca-Cola sitting at #1, as they are now topped by Apple and Google. However, despite the rise of technology, Coke still is projected to maintain this strong position.

With these factors as an important indicator of their pasts, social media appears to be an increasingly important part of their futures. Although less significant in terms of advertising expenditures, social media efforts are big focuses for both companies as they move forward. Social media allows for cheaper, higher frequency, and more targeted advertising, making it highly attractive for both.

First, Coke produces an incredible amount of content online. They have made a big push on social media over the past 3 years under what they call the "2020 Initiative Strategy." The objective is to create what they call "liquid," meaning that it is "so contagious that they cannot be controlled," and "linked" meaning that it is perfectly woven with their business interests, brands, and consumer interests.<sup>22</sup> They want to tell stories, promote conversations, and act and react to those conversations throughout the lifespan of the content.

This is made most clear when viewing the statistics of Twitter interaction. As Figure K indicates, Coke clearly is adhering to this ideology. They boast a 99% reply rate to other users, which is absurdly high, especially in view of how many tweets were analyzed. However, Coke does have less retweets and favorites in comparison to Pepsi, indicating quantity over quality. Similarly, the YouTube data in Figure L tells a comparable story between the two brands: while

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<sup>21</sup> "Rankings - Best Global Brands." *Best Global Brands*. Interbrand. Web. 4 May 2015. <<http://www.bestglobalbrands.com/2014/ranking/>>.

<sup>22</sup> "Coca-Cola Content 2020 Initiative Strategy Video - Parts I & II." *YouTube*. Forward Marketing's Channel, 7 July 2012. Web. 4 May 2015. <<https://www.youtube.com/watch?v=G1P3r2EsAos>>.

Coke dominates in the quantities, Pepsi still seems to be producing more popular content. Pepsi has more subscribers, more average views per video (Coke - 122,943, Pepsi - 216,801), and more likes. This indicates that Pepsi is better resonating with the younger demographic that largely comprises social media, which is exactly what they want to do.

But most interestingly, just last month, Pepsi just launched their yearlong, latest social media program. Giving a nod to the 40-year anniversary of the aforementioned famous Pepsi Challenge, Pepsi is now launching a global social media and social responsibility campaign, enlisting the help of numerous world-famous celebrities, and they are calling it Pepsi Challenge.<sup>23</sup> Worldwide celebrities are going to issue various challenges via their social media for anyone and everyone to complete, and then consumers use hash tags for charity donations. So this is yet another step in the right direction for Pepsi as they are able to precisely attack their target market on social media with exciting, youthful, celebrity driven content. Although it is hard to measure the effectiveness of these efforts in terms of sales, of course, it is very effective in adhering to and promoting their brand image of youthful excitement.

To conclude, I want to look at the advertising expenditures of each company. It is difficult to extract this data for just the flagship brands, but these stats are looking at the parent companies, PepsiCo and Coca-Cola Company. The CPG ratio is 6.3%, Coca-Cola is 7.6%, and PepsiCo is 5.8%. The CPG has a very high ratio in relation to all of the other industries due to the low differentiation of products and high dependability on brand equity and frequency of advertising.<sup>24</sup> Even still, Coke is spending a lot by any metric. Pepsi, although lesser, is still spending a high percentage. PepsiCo has huge a huge portfolio that they brings in massive sales, so the denominator is much bigger than Coke's, bringing their ratio down. So although Pepsi

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<sup>23</sup> "Pepsi Challenge." *#PepsiChallenge*. PepsiCo. Web. 4 May 2015. <<https://pepsichallenge.com>>.

<sup>24</sup> "2014 Advertising To Sales Ratios by Industry Sector." *SAI Books*. Schonfield & Associates, Inc., 1 June 2014. Web. 4 May 2015. <[https://saibooks.com/index.php?option=com\\_content&view=article&id=60&Itemid=61](https://saibooks.com/index.php?option=com_content&view=article&id=60&Itemid=61)>.

spends more in gross, Coke advertises more in relation to their sales. According to Figure M, Pepsi currently has the lead as far as gross expenditure in the US, but both brands are increasing their advertising budgets moving forward. Coke has stated that they plan on increasing their marketing spending by \$1 billion by 2016 to keep up due to the confidence that their marketing strategies are effective in creating sales and maintaining brand equity. Also, looking at the parent companies' global ad expenditures by medium in Figure N, it is clear that Pepsi is currently dwarfing Coke, but this is because PepsiCo has such a huge portfolio. But the important point of this chart is to show that the vast majority of expenditures still go towards TV for both companies.

Before an investigation of the marketing trends between Pepsi and Coca-Cola in prime-time television advertising, it is important to note each company's overall expenditure and the overall volume of advertising. Coca-Cola has supported an ideology of 'quantity over quality' in spending approximately 31 million on 302 advertisements in 2014; on the other hand, Pepsi believes in targeted approach with fewer ads in more advantageous, and consequently more expensive, locations, with the total expenditure nearing \$53 million on just 209 ads in 2014. Thus, with a calculation of average ad expenditure of both companies across their leading colas—diet and regular variants, Pepsi outspends Coca-Cola by 240% with Pepsi's average ad costing \$254,984 and Coca-Cola's only \$105,916. Pepsi, holding only 27.5% of the market-share, must work harder through advertising strategies and initiatives to gain traction on Coca-Cola, leading ownership of market-share at 42.3%. To analyze these two companies' marketing strategies, we must first identify their goals; Pepsi aims to gain market-share and reinforce brand image by becoming popular and relevant with young consumers, while Coca-Cola aims to retain market-share through consistent and persistent reminders of their brand. The four trends that we

found with these goals in mind, were the targeting of audiences via networks, annual marketing timelines, decisions with ad length, and capitalizing on engaged viewers.

By breaking down Coca-Cola and PepsiCo's expenditures per television network (Figures O and P in appendix), we can understand more about the target audiences that each hopes to reach. In 2014, 32% of data we had for Coca-Cola advertising was on the network CBS. CBS is composed namely of drama, reality, and sports. We believe that the dominance of advertising on CBS is reflective of Coca-Cola's attempts to reach viewers by advertising on shows that are often considered viewers' 'favorites' – those that are watched week after week in repetition – and are aimed towards a younger demographic. On the other hand, Pepsi spent 32% of advertising on NBC, a network that predominantly showcases sports and reality television. Pepsi's concentration on sports has been particularly successful in sports leagues. As of April 13th, Pepsi has overtaken Coca-Cola's sponsorship with the NBA, positioning Pepsi as the brand to “control promotion for all four major North American professional sports leagues: NBA, NFL, MLB, and NHL” (Heitner). This is a huge victory for PepsiCo in building the brand as one that revolves around sports, and illustrates how capable and determined the company is to gain exposure.

In an attempt to obtain more market-share, Pepsi has sought out opportunities with large-scale audiences that will buy into Pepsi's appeals to the younger generations, particularly through award shows, media, and sports, as we can see with the breakdown of expenditures per television show genre in Figure Q. Pepsi dominates over Coca-Cola in these categories, with 92%, 84%, and 63%, respectively; we know from the data that these television programs tend to have high CPMs, since they attract much larger audiences and more engaged viewers. These particularly expensive advertisement segments show up as peaks in Pepsi's annual ad expenditure in Figure R; peaks occur in January with the Grammy Awards, March with the Academy Awards, and in December with NBC Sunday Night Football. In January, the ad spend exceeds the ad frequency,

meaning that the few expensive advertisements Pepsi employed were chosen because of their better location and expanded number of viewers. Comparing Pepsi in Figure R to Coca-Cola in Figure S with these annual marketing timelines, there are important trends to note. Coca-Cola's high spike in February is due to ad expenditure on the Super Bowl, in which Coca-Cola spent \$16 million on two ads alone, but these expenses immediately drop in March and remain relatively low for the rest of the year while ad frequency shows steep peaks in May, September, and December. This supports Coca-Cola's strategy of utilizing memory-jamming ads at low costs to simply remind consumers of their brand, since Coca-Cola is established as the primary soft drink in the industry and do not need to reinforce their brand. Pepsi, however, seeks to remain present and popular with consumers by advertising at opportune events that reinforce Pepsi's brand image of 'excitement', 'youth', and 'trendiness'.

Coca-Cola's practice of memory-jamming is most clear in a comparison of all three types of advertisement lengths: fifteen seconds, thirty seconds, and sixty seconds (Figures T, U, V). Coca-Cola dominates over the entire range of advertising lengths, with Pepsi taking on the role of second most-advertised. However, no other brand even comes close to Coca-Cola's number of fifteen-second ads (Figure T). Interestingly, even though Coca-Cola has a market value of 177 billion, the company chooses to employ shorter advertisements because consumers are already familiar with the product. As we see in Figure V, Dr. Pepper seemingly has more sixty-second ads than Coca-Cola, but we do not believe a difference of one is likely to be significant and we would be able to prove this with more data. Overarching trends that are visible across soft drink companies are that thirty-second ads are the most popular, followed by fifteen-second ads, and then finally sixty-second ads, which are typically the most expensive to air. Since companies overwhelmingly use thirty-second ads as the general length of a commercial, we hypothesized that sixty-second commercials are used for special occasions and fifteen-second commercials

serve as ‘fillers’ or ‘reminders’. Similar tactics and choices for advertising lengths are used across the board for soft drink companies, namely because advertisers want to be as efficient and successful as possible in targeting their audiences.

Finally, to test our hypothesis that soft drink companies would be most interested in capitalizing on engaged viewers, we created a regression to illustrate the relationship between two elements of advertisement pods—the position of the ad within the commercial break (W) and the length of the break (X). Our hypothesis was based on our knowledge that advertising companies want their viewers to be a captive audience and that viewers are paying the most attention to the television during their program. Thus, we hypothesized that there would be a higher frequency of advertisements in the position directly after the program ended, in the first ad position of the commercial break. We plotted a graph to show the concentration of the output of more than a thousand individual raw data points (Figure W and X), with the darkest areas on the graph demonstrating the most frequent occurrences. To more easily view the trends in the data, we transformed this output into clearer graphs (Figures Y and Z). Even though advertisement placements in commercial breaks are typically randomized, we still see a marked increase of first-position ads over those in other positions. If the placement were entirely randomized, this trend would not be as well defined. In the actual regression in Figure AA, we can again see the concentration as we overlay the position of ads against the length of breaks. The longest line of darkest, concentrated points is where  $y = 1$ , or where the ad is positioned first, which supports our hypothesis. We predict that the first-place position in commercials may be bought, giving an advantage to the soft drink companies with higher market values – the two brands Pepsi and Coca-Cola – and creating another layer of competition among soft drink companies.

Taking on a pure company valuation analysis, our group has decided to recommend a buy of Pepsico common stock and a hold of Coca-Cola common stock. While we understand that

Coke maintains a strong brand image and global presence, the company's product holdings include almost exclusively beverages and are not established in snacks. Coke's revenue stream has been relatively safe over time, but given the recent trend towards health and a drop off in soda consumption in the US, revenue projects to be flat in the long term.

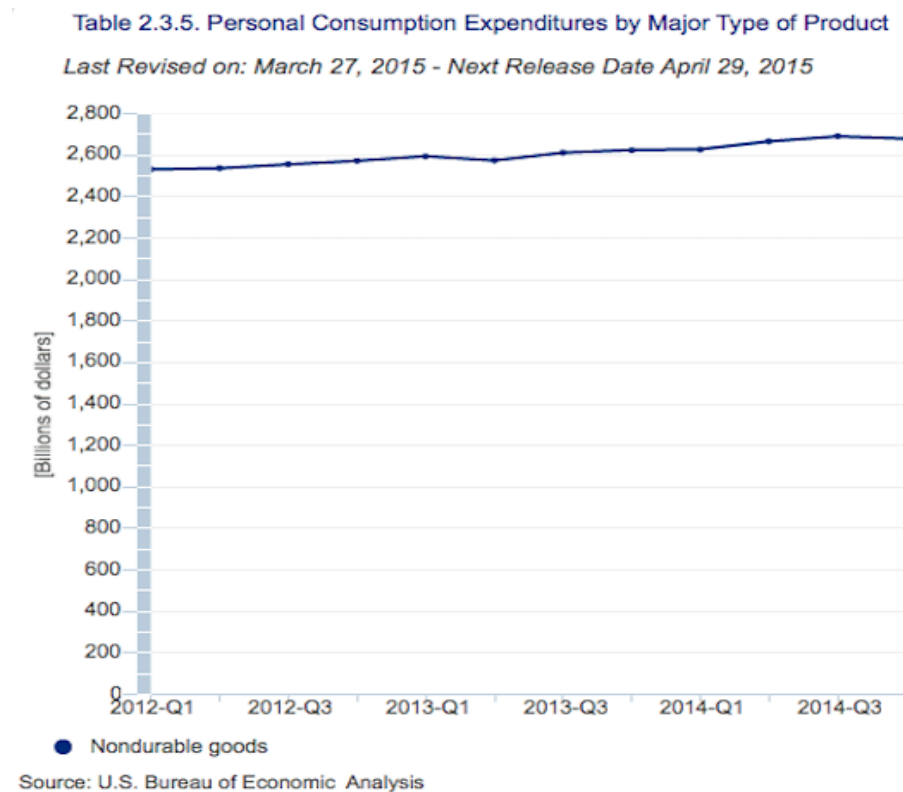
On the other hand, Pepsico has demonstrated stable five year earnings and can now boast the recent partnership with the NBA, making Pepsi the exclusive basketball brand. Ultimately, the company has a much larger product mix highlighted by the wide variety of snack brands offered, giving Pepsi more ability to innovate. Pepsi has taken advantage of this potential by partnering with the likes of Taco Bell, 7-Eleven, and Papa Johns to offer new menu items. In addition, important metrics are in Pepsi's favor as many Analysts project a higher 5-year EPS growth rate (6.77% vs 4.87%) and an increasing dividend percentage over time. The chart (Figure AB) below highlights the size of Pepsico's revenue over time as compared to Coke. Given their more diverse product mix, Pepsico has been able to capitalize with much higher and increasing revenues over time.

In order for Coke to reposition itself favorably, we recommend that Coke redistribute its marketing budget to put an emphasis on their healthier existing products in addition to classic Coke. This includes their juice products, tea products, water, and mostly their "Mixify" campaign. Coke's recent increase in its marketing budget signals an intention to continue to push existing brands globally, something that Coke would benefit from.

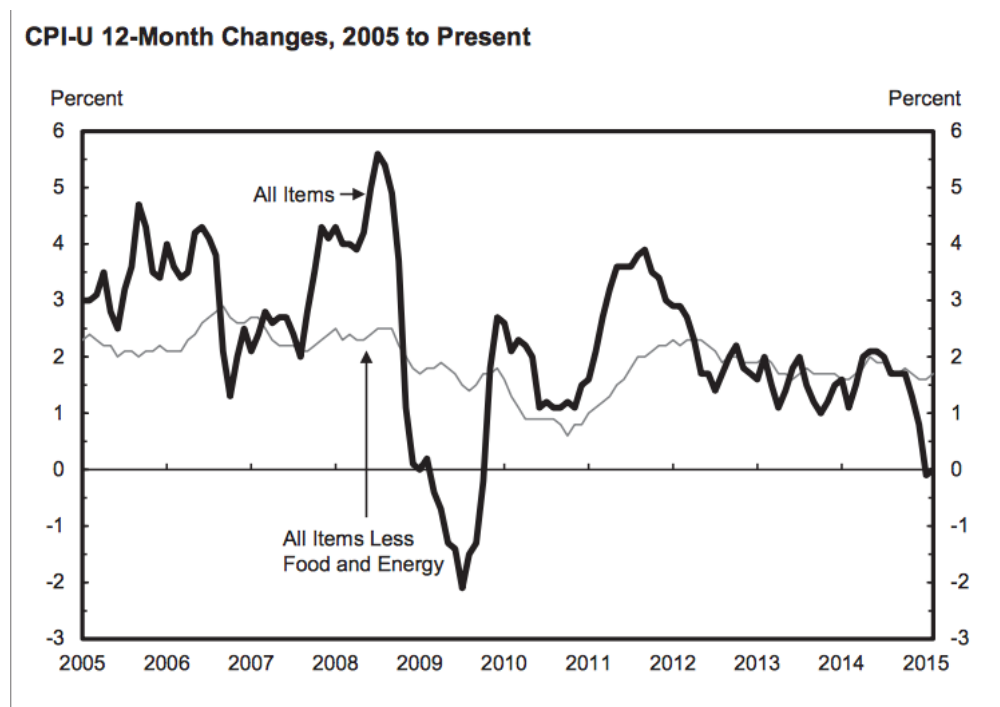
We recommend that Pepsi limit the amount of changes to their advertising strategy and continue to pursue health conscious customers by developing healthier brands. Given that Pepsi is so involved in the snack food industry the company can further promote and expand on healthy snack options such as Quaker brands, Baked Lays chips, and Propel sports drinks.



Appendix:



*Figure A*



*Figure B*

# CPG MARKET SHARE BREAKDOWN

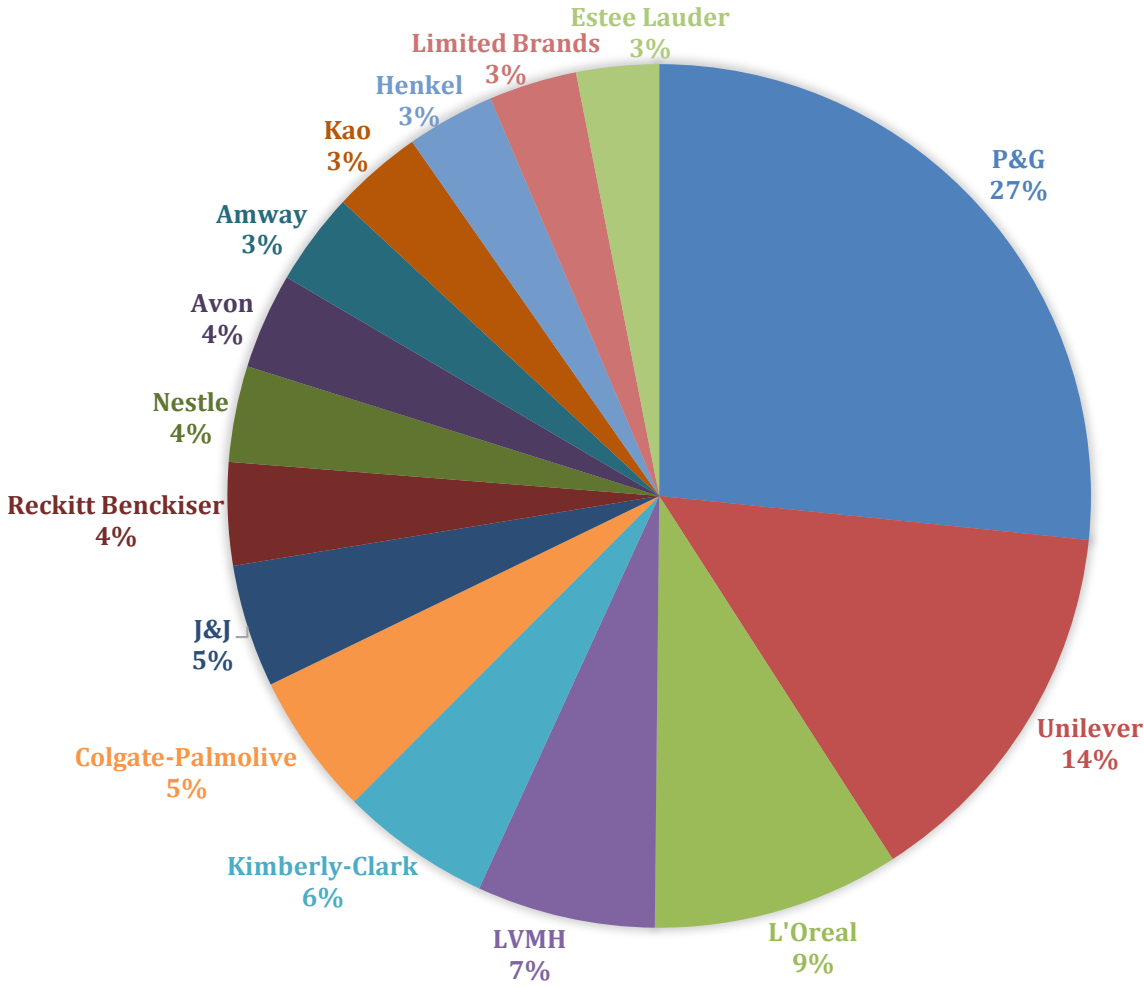
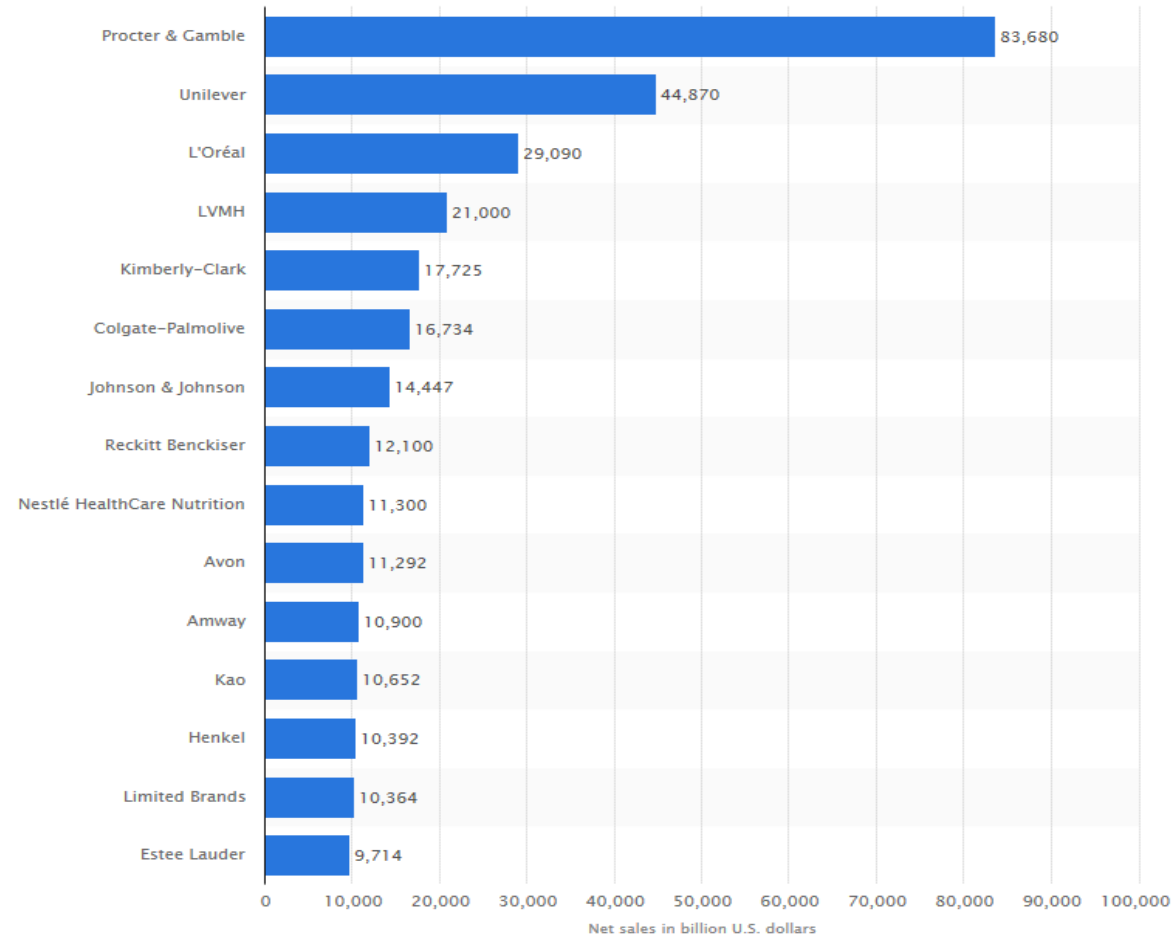
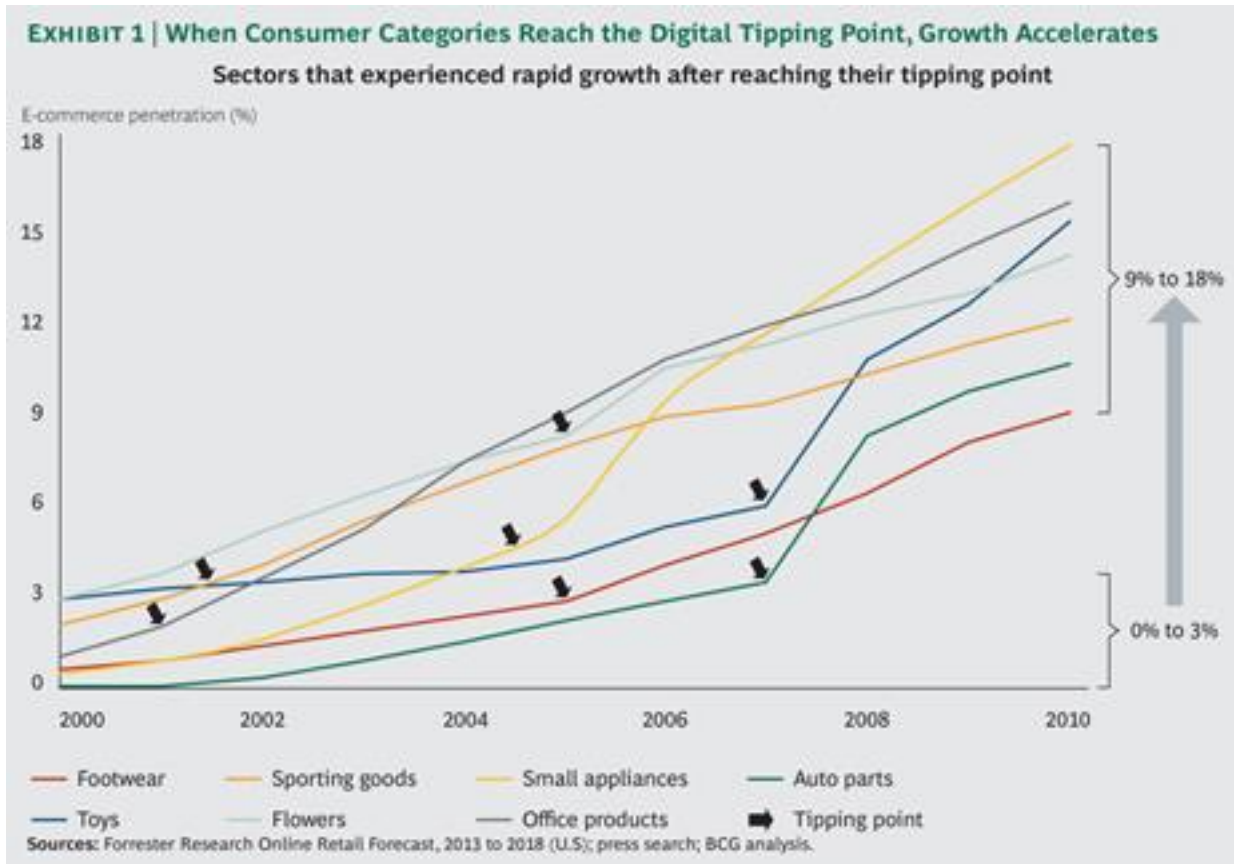


Figure C

**Revenue of the 15 largest consumer packaged goods (CPG) manufacturers worldwide in 2013 (in billion U.S. dollars)**



*Figure D*



*Figure E*

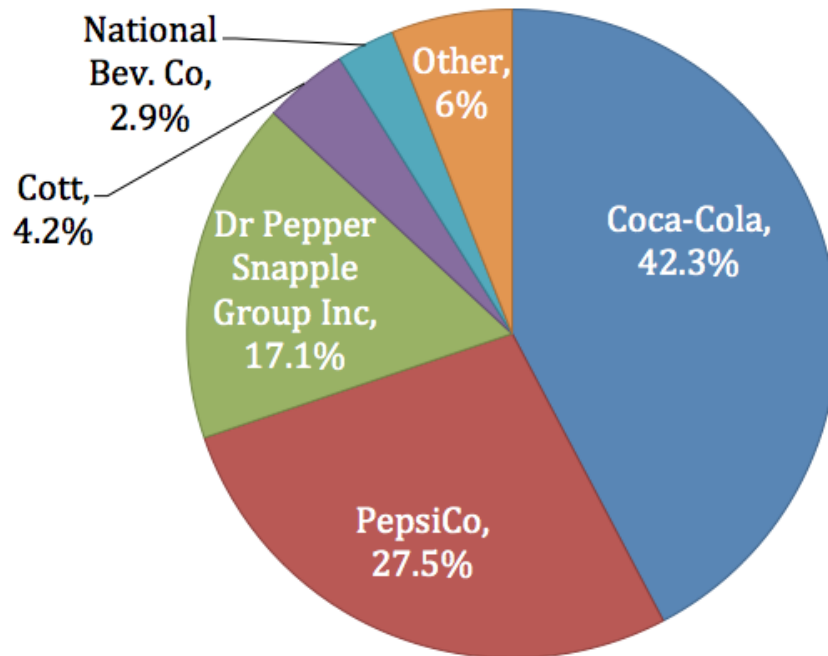
*Americans' Soda Drinking Habits by Major Demographic and Socioeconomic Groups*

Do you mostly drink diet soda, regular soda, or don't you drink soda?

	<b>% Diet</b>	<b>% Regular</b>	<b>% Don't drink soda</b>
American adults	24	32	43
Men	23	36	39
Women	24	28	46
Whites	29	27	45
Nonwhites	13	46	40
Ages 18-29	13	50	37
Ages 30-49	23	32	44
Ages 50-64	28	25	46
Ages 65+	32	22	46
East	20	28	52
Midwest	28	32	40
South	25	35	39
West	23	32	43
<\$30K per year income	20	45	36
\$30K-\$74,999 per year income	22	34	44
\$75K per year income	30	20	49

**Figure F**

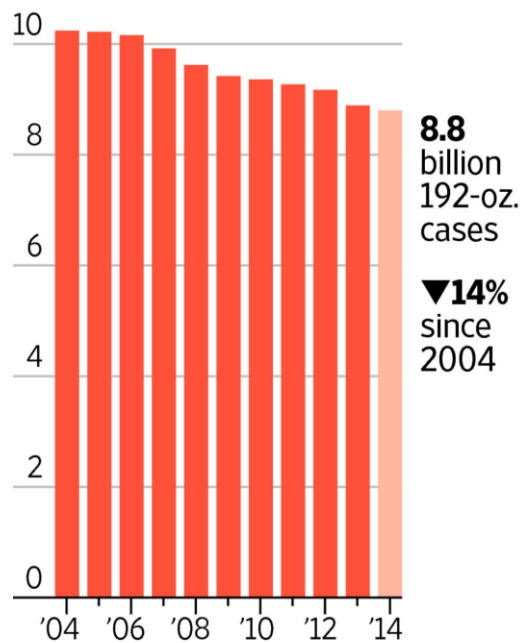
## Soft Drink Market Share



*Figure G*

## Soda Slump

U.S. carbonated soft drink volume



Source: Beverage Digest

THE WALL STREET JOURNAL.

*Figure H*

Serving Size 1 can (12 fl oz)  
Serving Per Container 1

**Amount Per Serving**

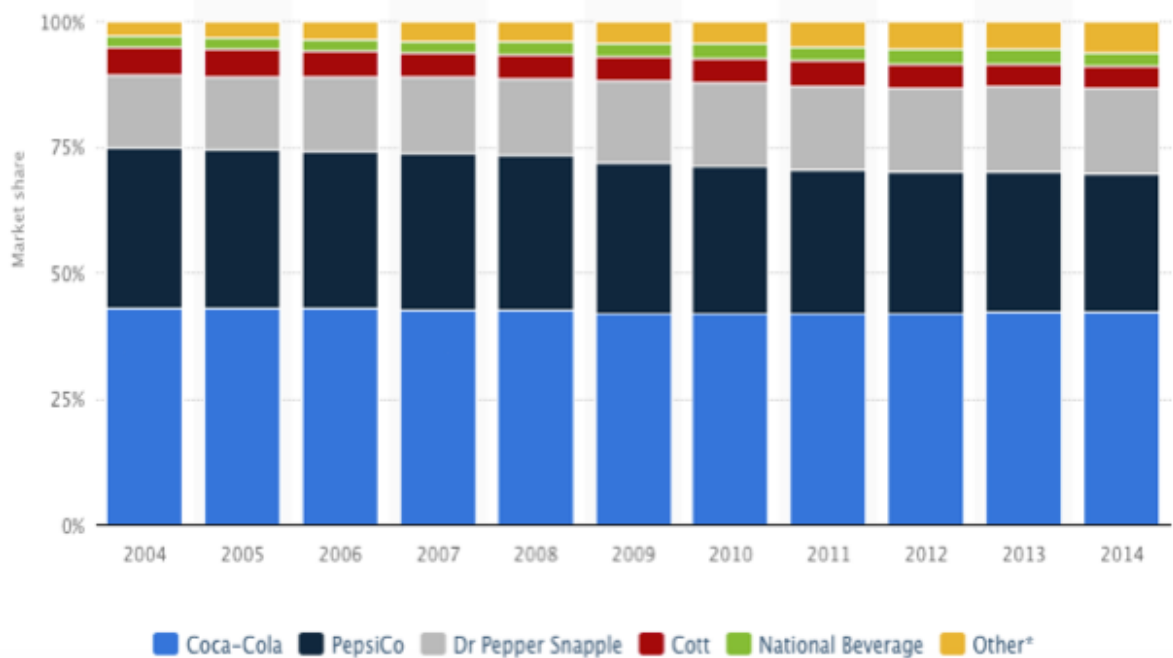
**Calories** 140

% Daily Values\*

<b>Total Fat</b> 0g	<b>0%</b>
Saturated Fat 0g	<b>0%</b>
Trans Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 45mg	<b>2%</b>
<b>Total Carbohydrate</b> 39g	<b>13%</b>
Dietary Fiber 0g	<b>0%</b>
Sugars 39g	
<b>Protein</b> 0g	<b>0%</b>

*Figure I*

### Soft Drink Market Share 2004 – 2014



*Figure J*

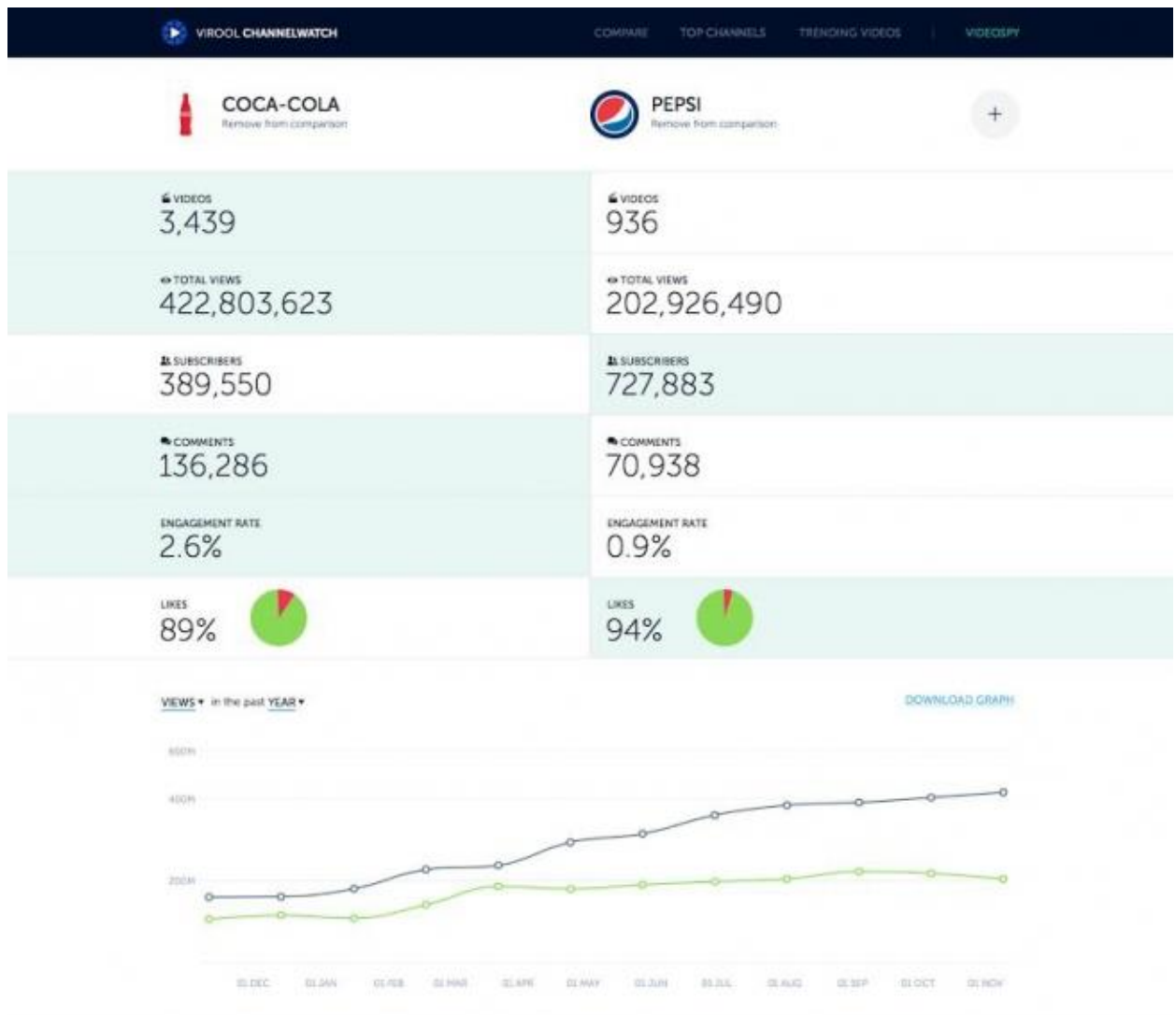
## Twitter Statistics in the Soda Industry

Company	Brand	Category	Handle	Average # of tweets per day	Followers	Total tweets analyzed*	Proportion of tweets		
							Replies to other users	Retweeted by other users	Favorited by other users
PepsiCo	Pepsi	Regular soda	@pepsi	4.1	2,588,202	681	33%	81%	80%
Coca-Cola	Coca-Cola	Regular soda	@CocaCola	60.4	2,517,586	3,200	99%	45%	36%
Red Bull	Red Bull	Energy drink	@redbull	45.7	1,538,597	3,200	69%	66%	74%
Monster Beverage Corporation	Monster Energy	Energy drink	@monsterenergy	4.6	1,315,717	775	7%	67%	68%
PepsiCo	Pepsi	Regular soda	@mtn_dew	19.9	360,434	3,200	93%	46%	64%
Dr Pepper Snapple Group	Dr Pepper	Regular soda	@drpepper	11.3	267,022	1,897	76%	57%	75%
PepsiCo	Gatorade	Sports drink	@Gatorade	13.6	260,600	2,281	89%	53%	65%
Rockstar	Rockstar	Energy drink	@rockstarenergy	7.8	235,851	1,311	50%	62%	74%
Coca-Cola	Coca-Cola Company	Company	@COCACOLACO	8.6	224,034	1,436	36%	70%	76%
Coca-Cola	Powerade	Sports drink	@POWERADE	1.1	133,915	179	17%	84%	85%

*Figure K*



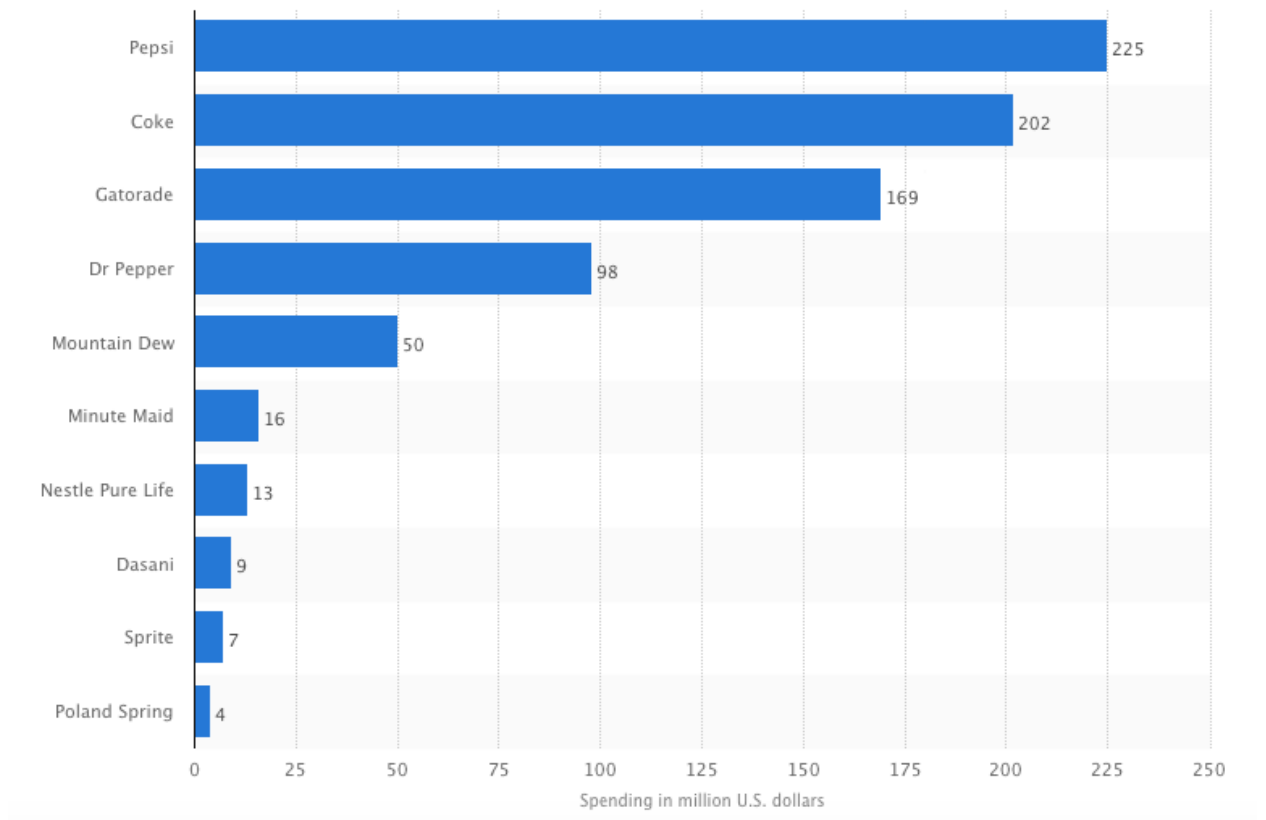
## YouTube Statistics Comparison of Coca-Cola and Pepsi



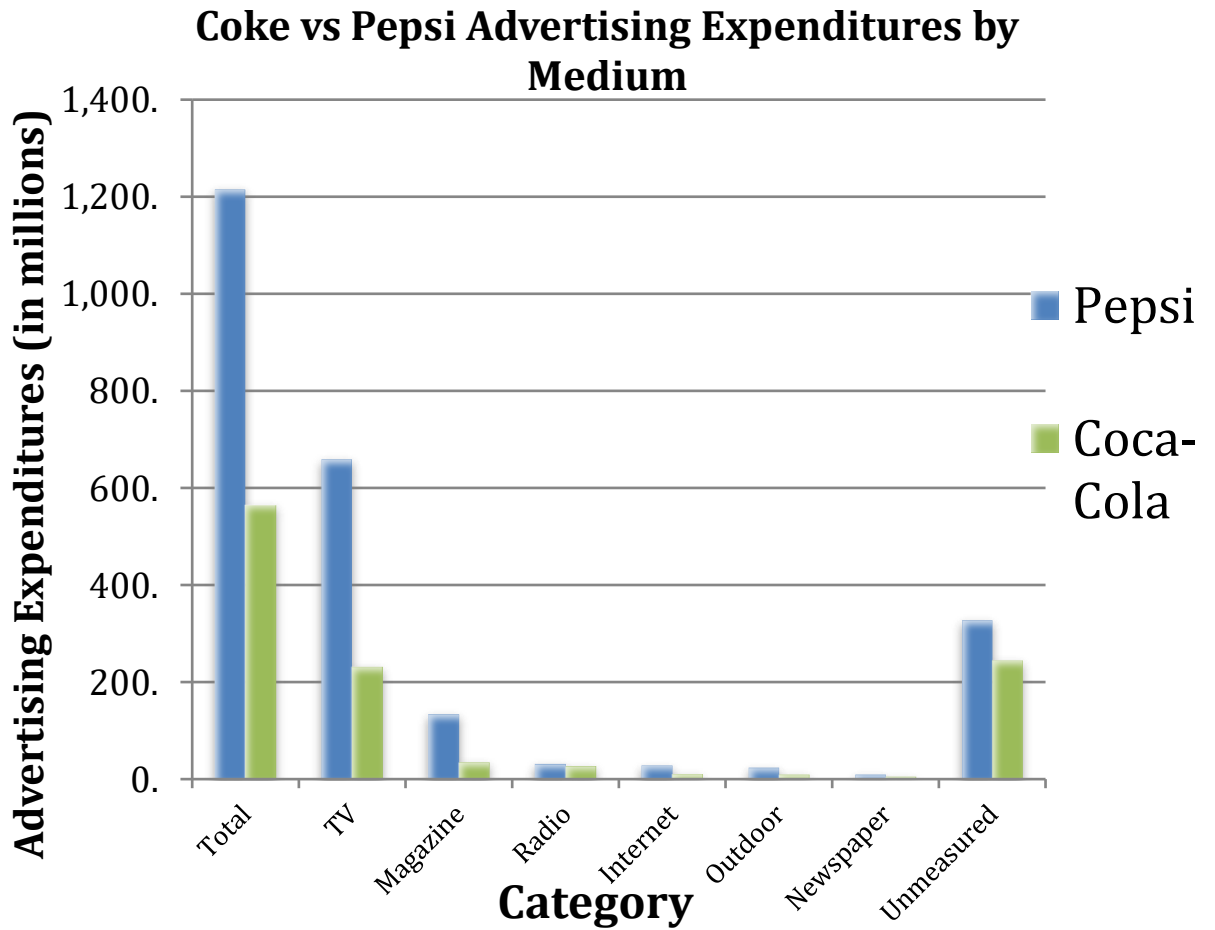
*Figure L*

## U.S. Advertising Expenditures by Parent Company

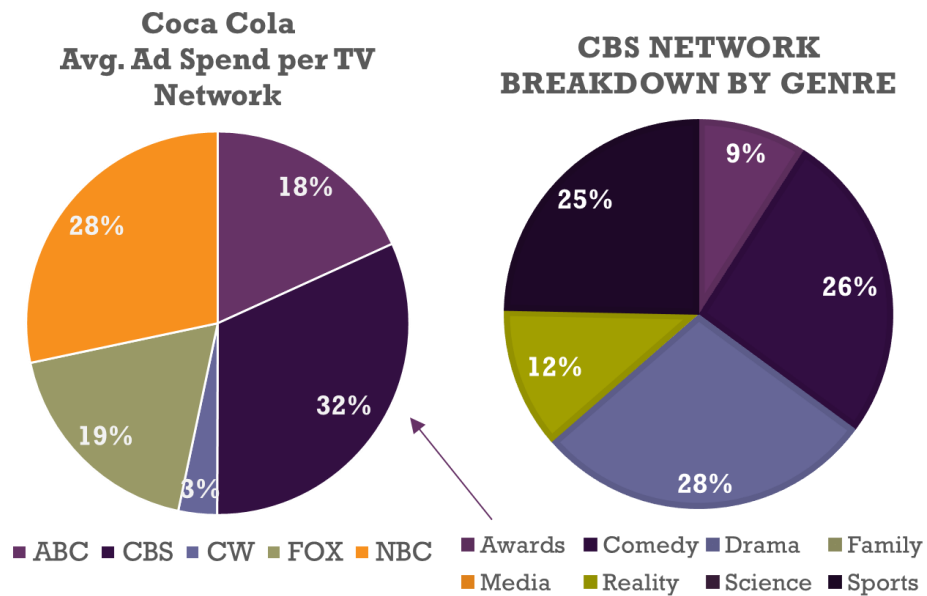
Advertising spending of selected beverage brands in the United States in 2013  
(in million U.S. dollars)



*Figure M*



*Figure N*



*Figure O*

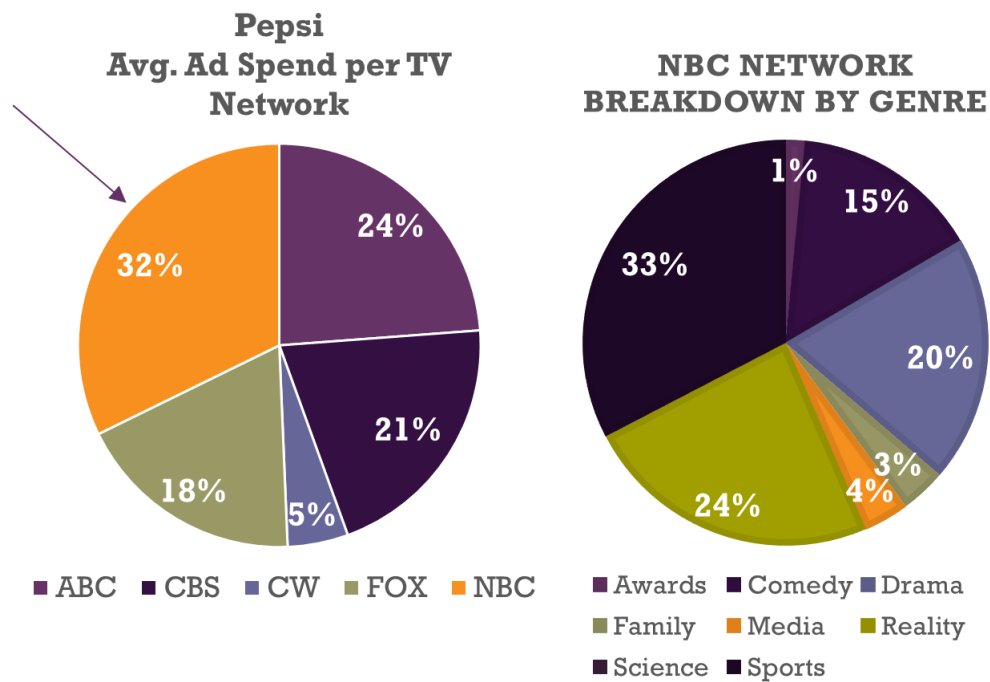


Figure P

### Pepsi vs. Coca-Cola Ad Expenditures per TV Genre

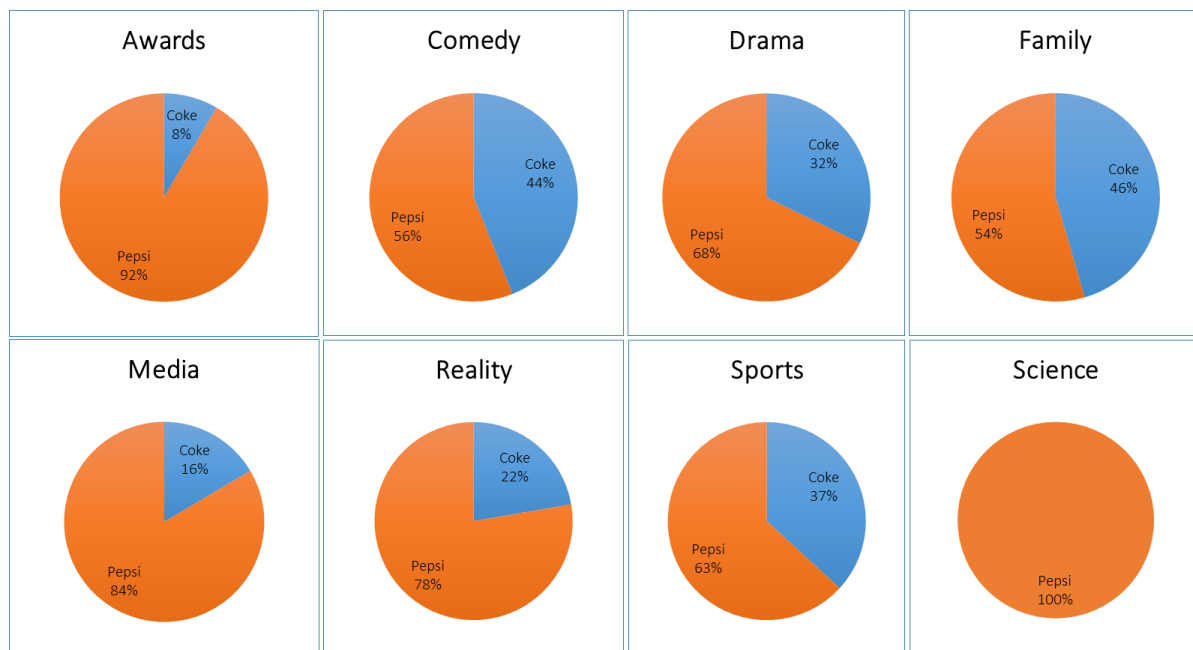
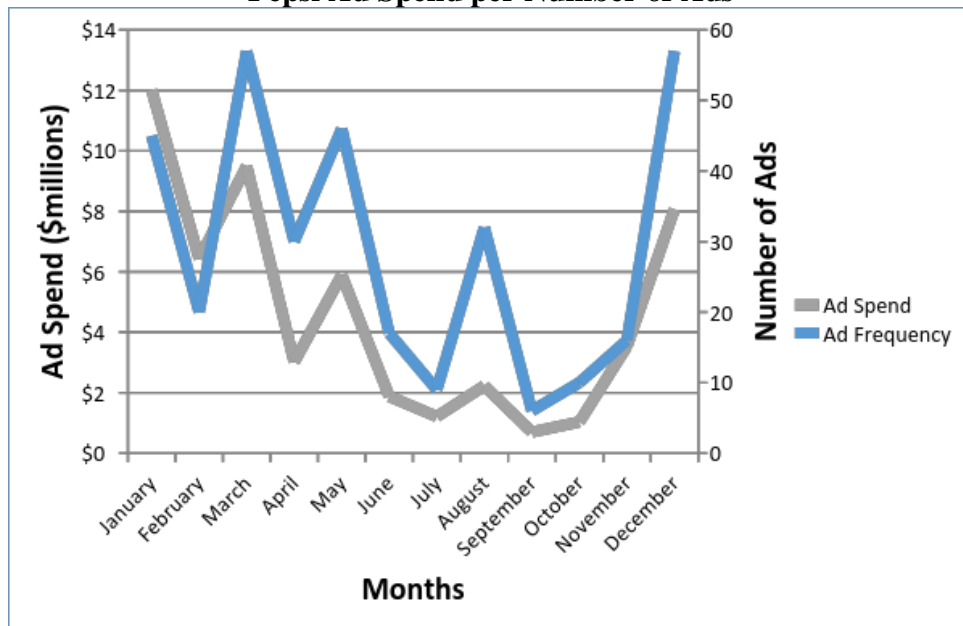


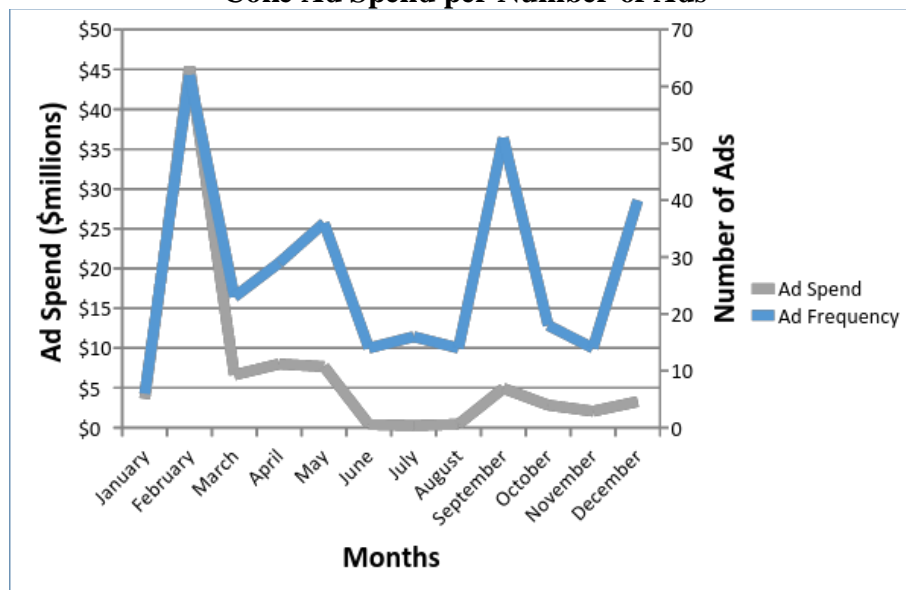
Figure Q

**Pepsi Ad Spend per Number of Ads**

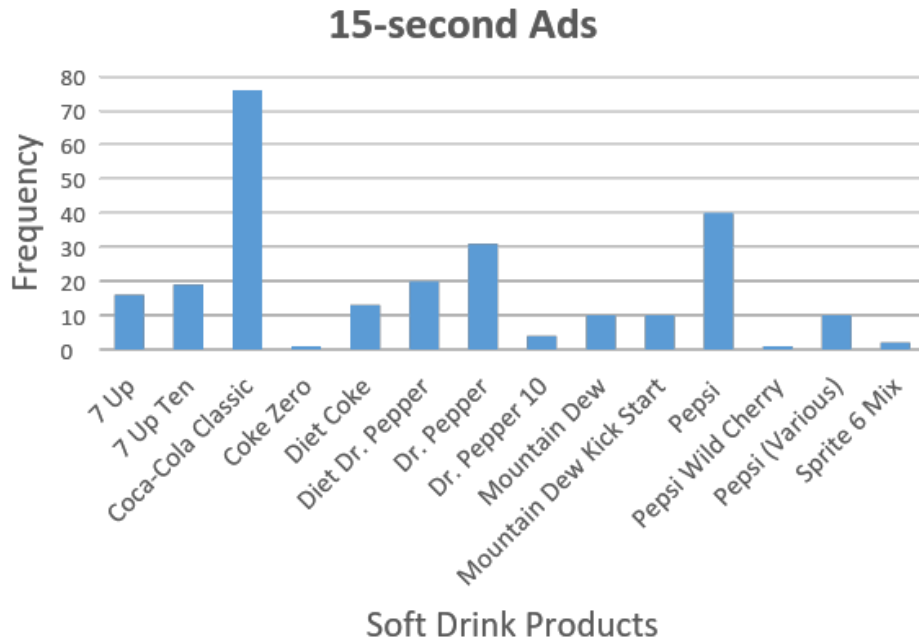


*Figure R*

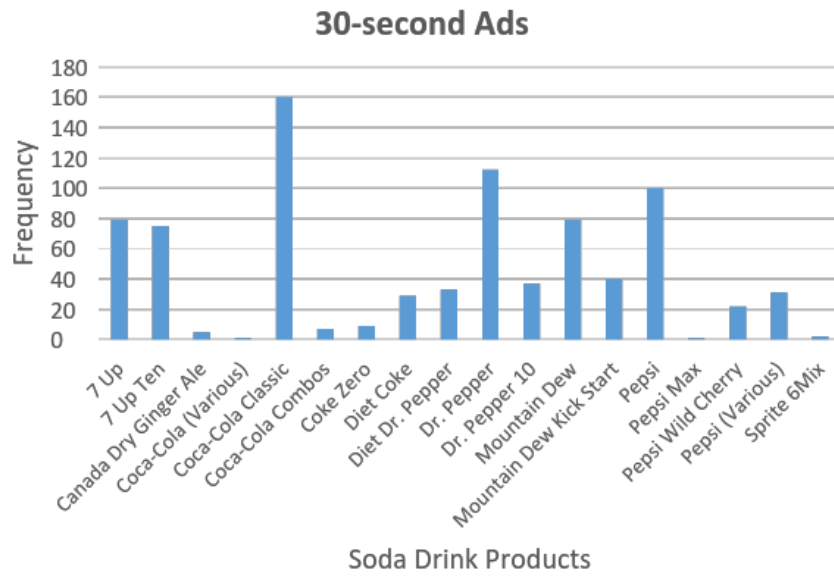
**Coke Ad Spend per Number of Ads**



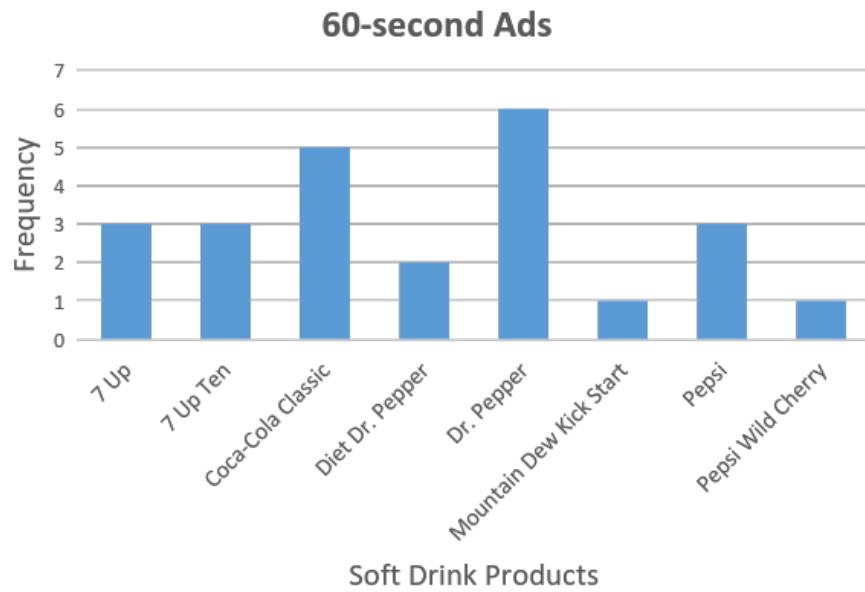
*Figure S*



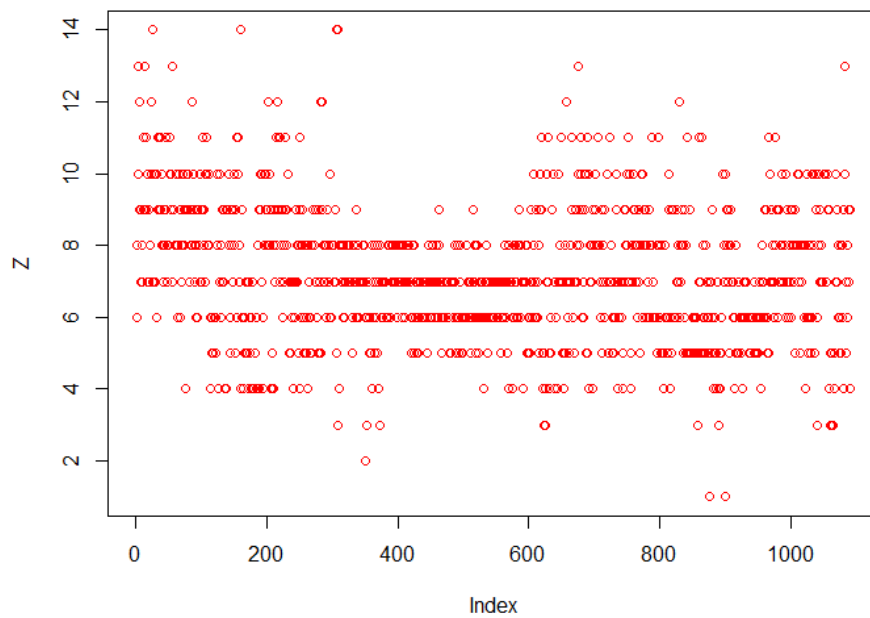
*Figure T*



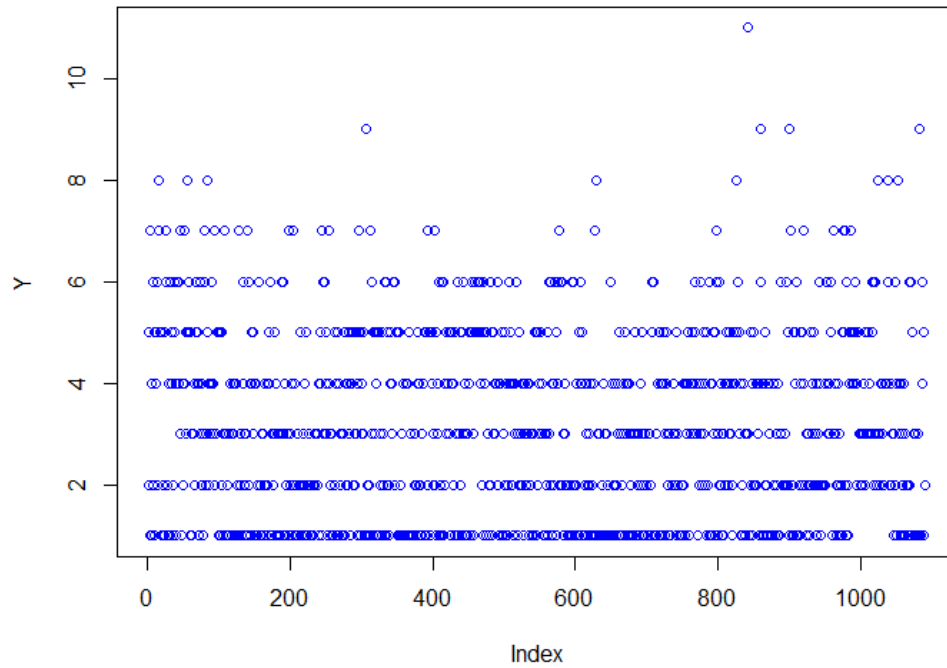
*Figure U*



*Figure V*

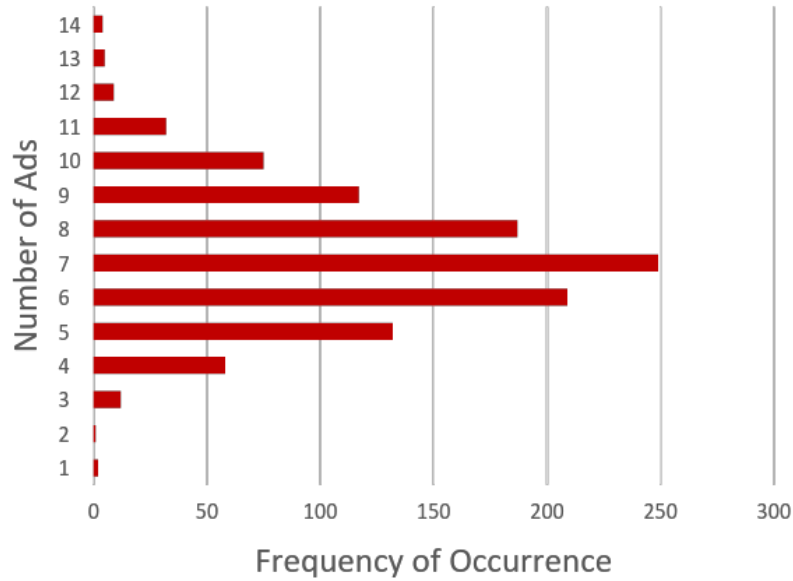


*Figure W*



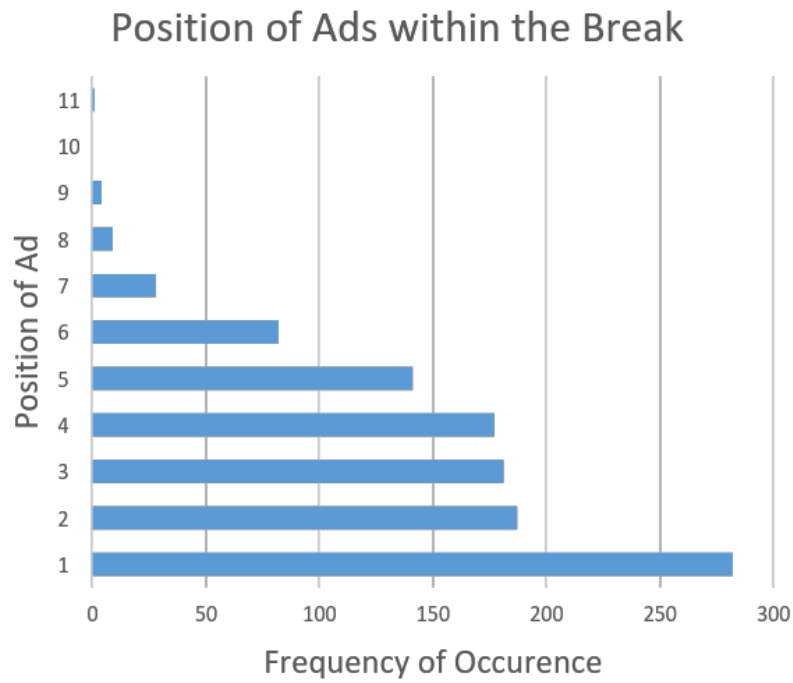
*Figure X*

## Number of Ads in Commercial Breaks

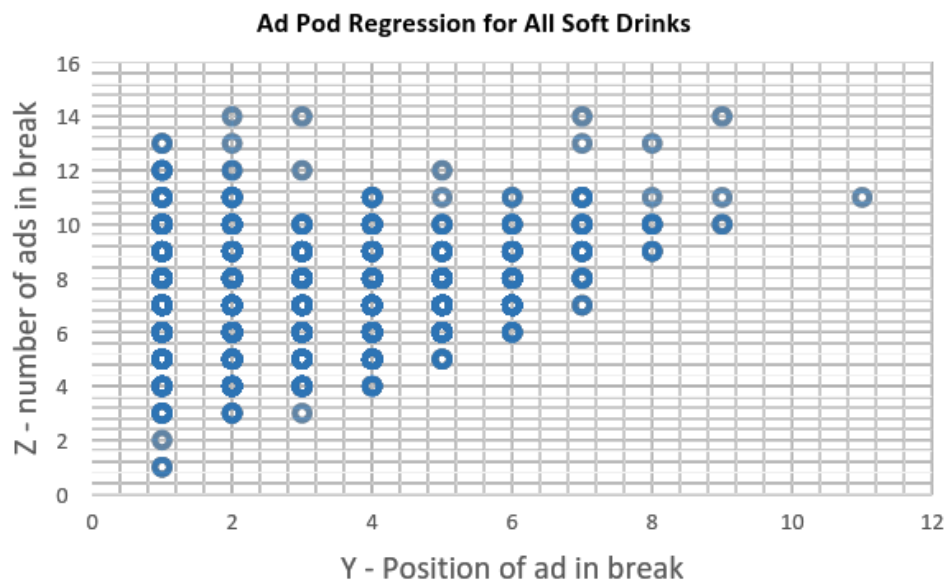


*Figure Y*

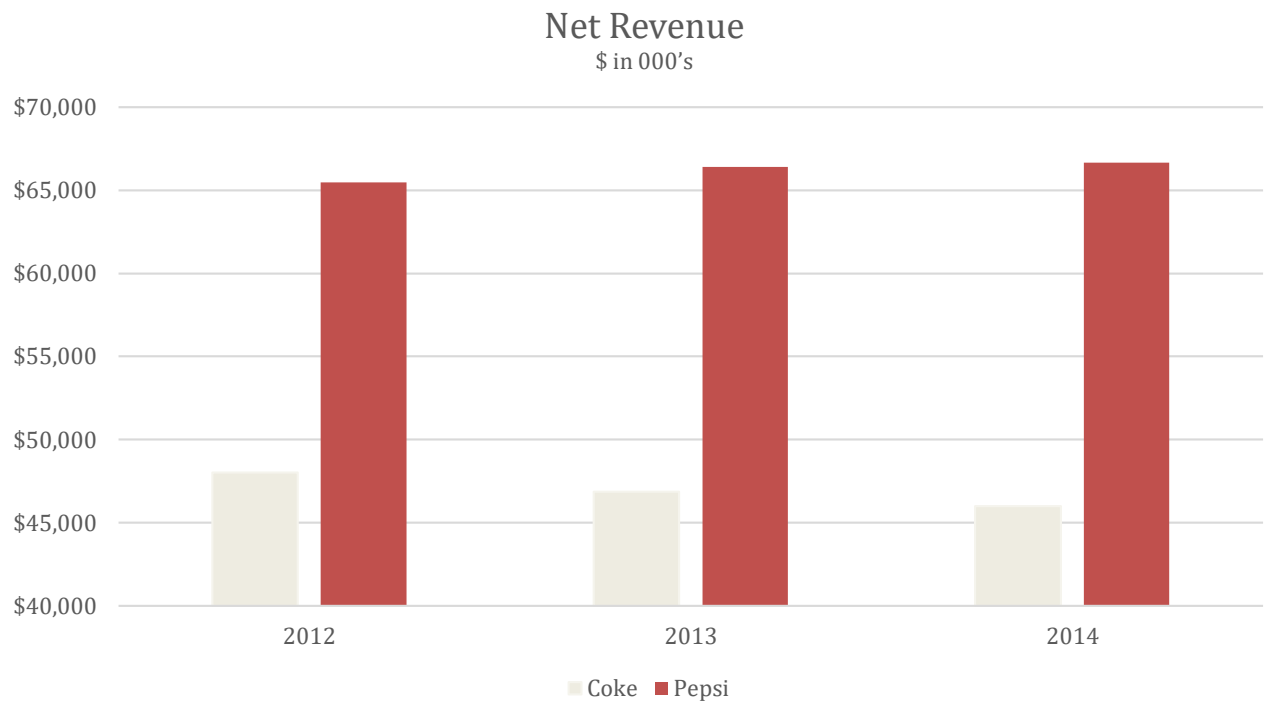




*Figure Z*



*Figure AA*



***Figure AB***