

Brand Analysis: Coca-Cola vs Pepsi

Date Range: January 1, 2013 - March 10, 2014

Introduction

In the high-margin soft drink industry there has always existed an intense battle for consumer preference. Coca-Cola and Pepsi have competed for this preference using a whole myriad of strategies and supporting tactics including coupons, product innovation, share of shelf-space, and celebrity endorsements, just to name a few. Most recently, Pepsi's intended sole dominance of The Oscars was sabotaged by clever brand placement of the Coca-Cola logo on a pizza box that was given camera time during the show.

Yet, while competition is intensifying, industry reports point to declining overall growth. This is generally attributed to increasing consciousness of obesity and the causal role soft drinks play, as well as shifting preferences away from soft drinks towards water, coffee, and energy drinks.



Both companies are well in-tune with attempting to capitalize on changes in drink preferences through line extensions outside of carbonated beverages with their own bottled water, sports drink, juice and tea subsidiaries. Recently, Pepsi and Coca-Cola have also introduced brand extensions with natural ingredients and sustainable packaging in an effort to increase retention among consumers concerned about the use of high-fructose corn syrup and the environmental implications of soft drink containers.

This brand analysis examines geographic preferences for each brand, gender distribution, US demographic metrics, net favorability, levels of trust and emotional attachment, expressed purchase intent and acquisition, and compares the strengths and weaknesses of brand extensions. Finally, this report concludes with a comparison of acquisition data from previous years, an analysis of sweeteners, and strategic recommendations.



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High Level Metrics

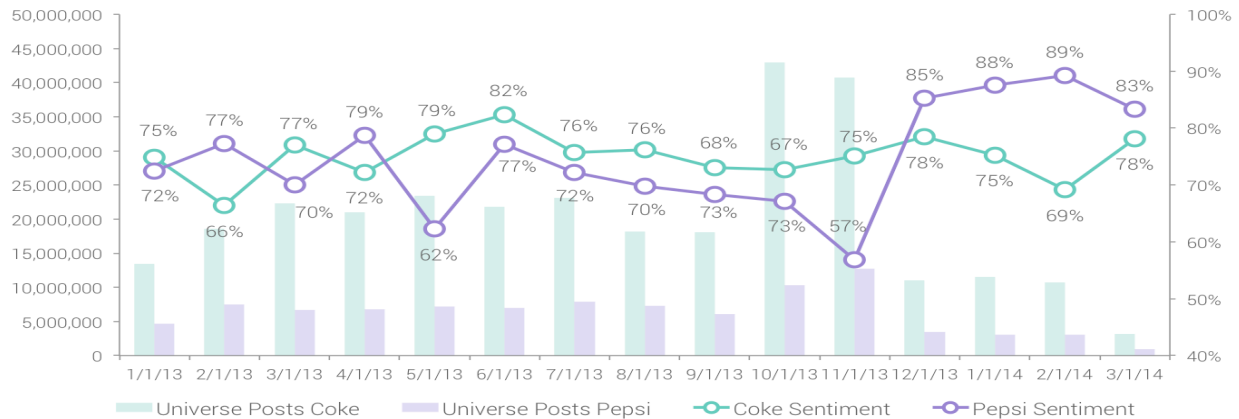
Coke Volume

Volume: 299,841,466
Favorability: 68%

Pepsi Volume

Volume: 94,731,755
Favorability: 67%

Coca-Cola VS Pepsi Trends 1/1/2013-3/1/2013



Over the last 14-months, consumers around the world discussed Coca-Cola three times more than they discussed Pepsi. While consumer favorability for Coca-Cola was fairly consistent, favorability for Pepsi was highly volatile. This volatility for Pepsi led to overall lower aggregate favorability for the brand, although Pepsi saw the single highest favorability peak recorded for either brand, at 89%.

Pepsi's favorability plummeted in May 2013 as a result of their association with rapper Lil' Wayne, who released a song with an inflammatory lyric about a 14 year old who was brutally murdered. Pepsi quickly cut ties with the rapper, and as a result, their favorability quickly rebounded. Higher volume and lower favorability for Pepsi occurred over several weeks in November and was a result of several incidents. On the international stage, the most significant negative incident was a run of Swedish Pepsi ads depicting Portugal soccer superstar Cristiano Ronaldo as a voodoo doll suffering various forms of abuse.



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High Level Metrics

For Pepsi, the company's escalation in favorability from December 2013 through March 2014 was related to several high profile events, including sponsorship of the Super Bowl half time show, as well as celebrity-centric ads, the most popular being Pepsi Max and Nascar driver Jeff Gordon teaming up for "Test Drive 2". This period of time was marked by fewer controversial events and risky celebrity endorsements.



IN CASE YOU MISSED IT

**Woman's Death
Blamed on
2 Gallons of
Coke a Day**

New Zealand family
faults company



Apr 22, 2012 5:39 PM CDT

Coca-Cola's all time low in favorability resulted from coroners declaring the official death of a 31-year New Zealand woman as being related to excessive consumption of Coca-Cola.

Conversations surrounding Coca-Cola skyrocketed in October 2013 mainly due to a Diet Coke campaign that introduced Taylor Swift branded cans, supplemented by corresponding advertisements.



Volume increased again in November when Coca-Cola announced the company was suspending its advertising in the Philippines so that it could donate its entire ad budget to typhoon relief efforts.

Sentiment for Coca-Cola dropped again in February of 2014 in response to the company's Super Bowl advertisement known as [#AmericalsBeautiful](#), which ignited a debate about American xenophobia on social media ([more information](#)). Coca-Cola's consistent consumer favorability stemmed from their aversion to more risky advertisements and celebrity endorsements. Although this strategy seemed effective at preventing negative reactions, the brand also did not achieve near the levels of favorability experienced by Pepsi.

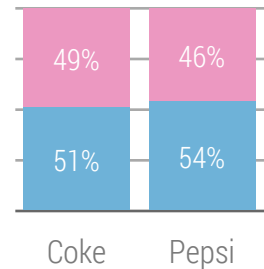


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Demographics

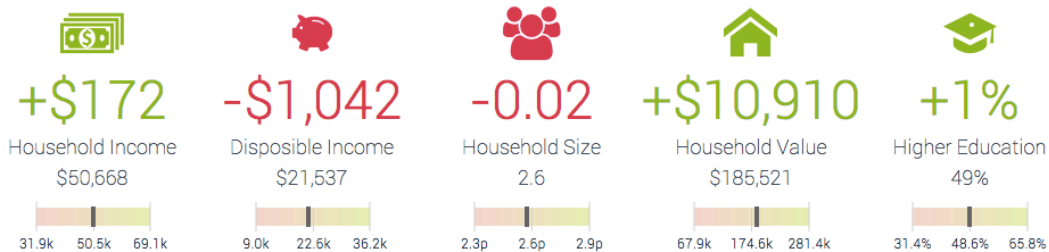
In the US, gender for Coca-Cola conversations was evenly distributed. For Pepsi, a clearer bias in preference was seen for men over women, with 54% to 46%. Higher conversation volume among men for Pepsi was driven primarily by topics related to Pepsi's presence within sports. Removing sports related conversations, men still remained the majority, but the split was reduced to 52:48.

Gender Distribution

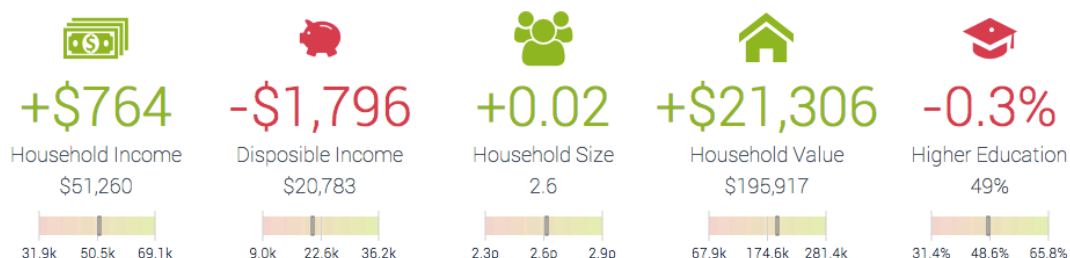


Coca-Cola consumers tended to belong to lower income households than their Pepsi counterparts; however, Coca-Cola consumers were seen to have a higher disposable income. This finding translates to Pepsi consumers living in areas where the cost of living is higher. This is further supported by the higher household values noted for these same Pepsi consumers. Household size and higher education levels did not vary significantly from the mean for either brand.

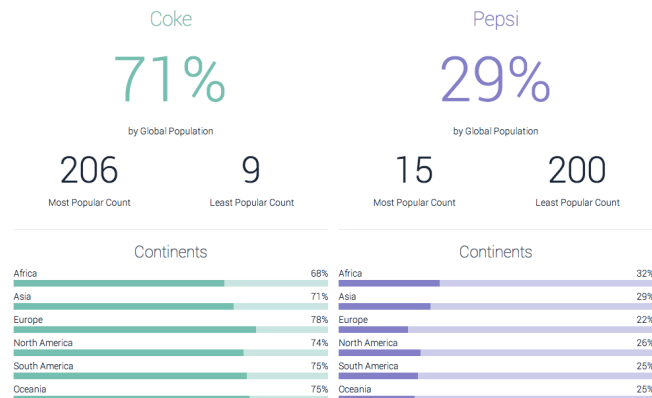
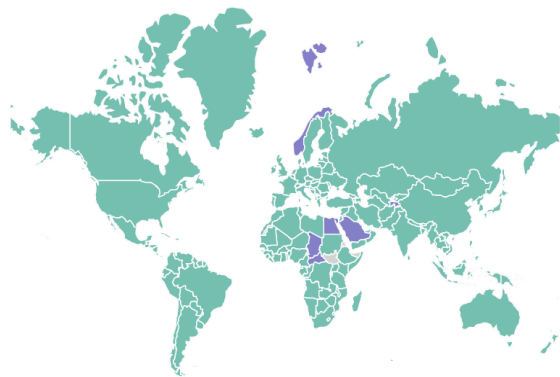
Coca-Cola US Demographic Data



Pepsi US Demographic Data

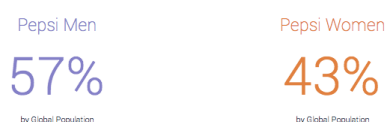
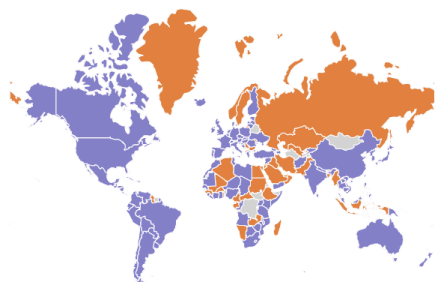
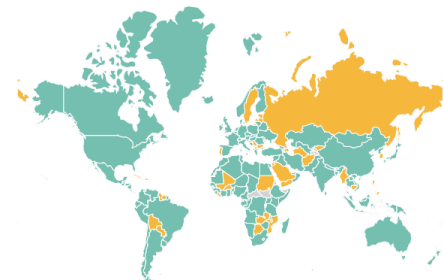


Global Brand Analysis



Globally, we see a strong worldwide preference for Coca-Cola, with 71% of the global population's discussion volume going to Coca-Cola, compared to just 29% for Pepsi. However, Pepsi was the brand of choice in several notable countries including Saudi Arabia, Egypt, and Norway.

Around the world, men talk about both Pepsi and Coca-Cola more than women. Yet there were several countries where conversations were consistently driven more by women, including Russia, Saudi Arabia, Sweden, Sudan, and Myanmar. Pepsi had a greater variance in gender participation globally, the majority of which occurred in Africa and the Middle East.

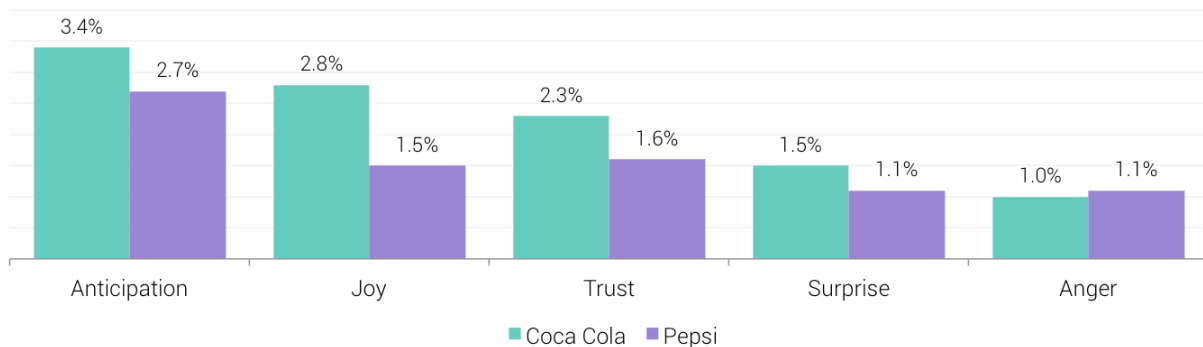


In the United States, Coca-Cola held less of an advantage, albeit still a strong majority, with 65% of the US population discussing Coca-Cola over Pepsi. Pepsi realized a slightly stronger position in the US Midwest with 38% of the conversations discussing Pepsi compared to the overall mean of 35%.



Themes and Emotions

Coca-Cola VS Pepsi Expressed Consumer Emotions

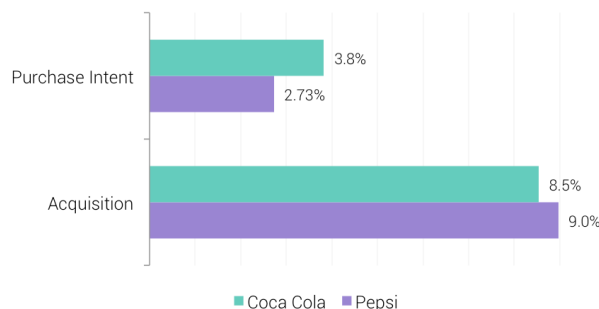


Coca-Cola measured more positively in all emotional categories, with the highest margins occurring in emotions related to joy and trust. More consumers discussed themes related to acquisition for Pepsi than for Coca-Cola; however, when discussing future intent to purchase more consumers discussed Coca-Cola.

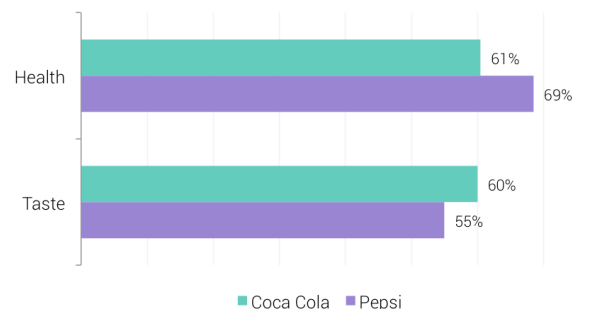
Alarmingly, carcinogens were the most referenced negative health topic for Pepsi.

Coca-Cola was also more positively discussed in regard to taste, while more negatively for health. Aspartame was the most referenced negative health topic for Coca-Cola, relating to the artificial sweetener found in many Coca-Cola and Pepsi brand extensions. Alarmingly, carcinogens were the most referenced negative health topic for Pepsi. The topic was discussed in regard to the additive 4-methylimidazole, or 4-Mel, used to create the caramel coloring in many Pepsi products. Pepsi has repeatedly vowed to change the formula in order to eliminate the potentially harmful additive.

Purchase Indicators



Attribute Favorability



Coca-Cola vs Pepsi Scoreboard



Coca-Cola

Coca-Cola demonstrated clear preference in every aspect, with the exception of the acquisition category and a draw on positive and negative passion indexes. The only category which Pepsi excelled over Coca-Cola was stated acquisition by a margin of just 6%. This means that Pepsi consumers, when speaking of their brand, were slightly more likely to broadcast their purchase behavior compared with Coca-Cola's consumers.

	Coca-Cola	Pepsi	Winner	Margin
Volume	299,841,466	94,731,755	Coca-Cola	217%
Brand Favorability	68%	67%	Coca-Cola	1%
Positive Passion Index	High	High	Draw	-
Negative Passion Index	Low	Low	Draw	-
Global Geographic Preference	206	15	Coca-Cola	1273%
US States Preference	50	0	Coca-Cola	∞
Trust (positive)	2.3%	1.6%	Coca-Cola	44%
Taste (positive)	11.4%	9.4%	Coca-Cola	21%
Acquisition (positive)	8.5%	9%	Pepsi	6%
Purchase Intent (positive)	3.8%	2.7%	Coca-Cola	41%



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Coca-Cola Brand Extensions

Diet Coke

Volume: 16,464,373

Favorability: 61%

Cherry Coke

Volume: 2,756,808

Favorability: 74%

Coke Zero

Volume: 3,122,680

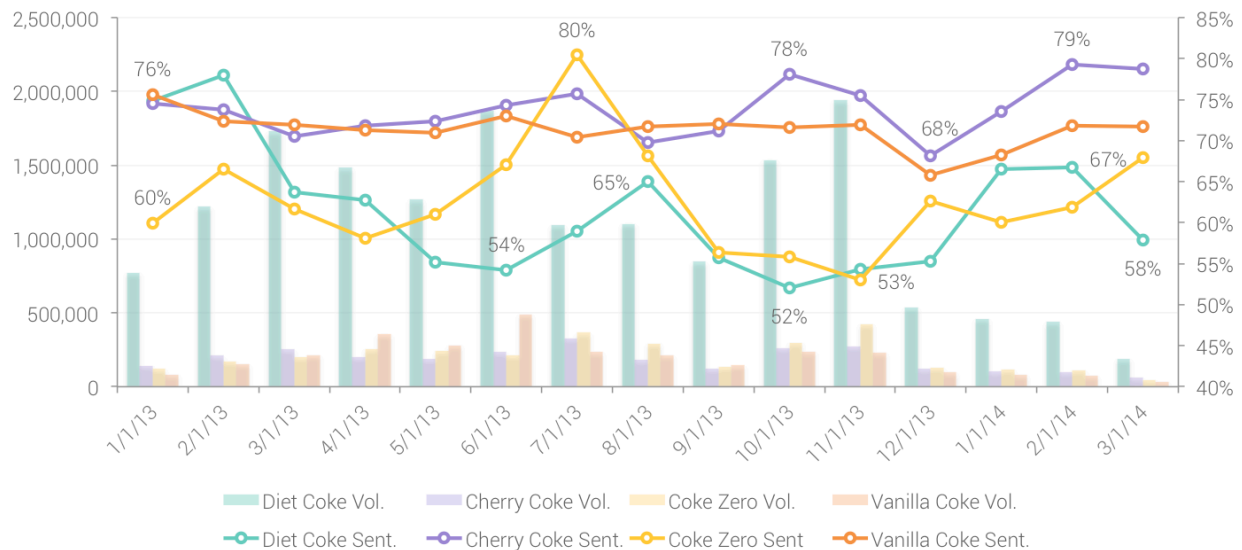
Favorability: 63%

Vanilla Coke

Volume: 2,924,817

Favorability: 71%

Coca-Cola Brand Extension Trends 1/1/2013 - 3/10/2014



Coca-Cola's four most discussed brand extensions were Diet Coke, Cherry Coke, Coke Zero, and Vanilla Coke. Diet Coke was overwhelmingly more popular than Coca-Cola's other brand extensions, but also drove more negative conversations for the extension and the brand as a whole. Negative remarks were most often related to health concerns with aspartame, the artificial sweetener most commonly used in diet beverages.

A large portion of conversations about Diet Coke and Coke Zero focused on the health concerns and pop culture debate on the likability of celebrity sponsors. In the period between September 2013 and November 2013 several posts were created and shared regarding the long term health consequences of aspartame in Diet Coke. The original post proclaimed, "Numerous Studies Have Found No Link Between Long Term Aspartame Exposure And Cancer In Humans." In response, commenters were quick to assert other long-term health consequences, particularly kidney problems, bone density loss, and high blood pressure.

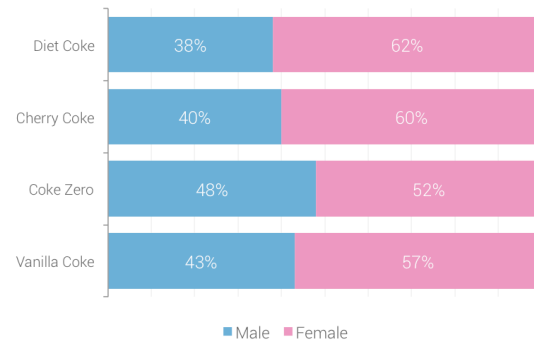


Coca-Cola Brand Extensions

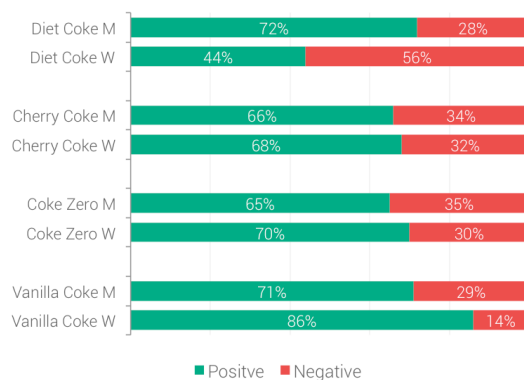
Regardless of conversation volume, the flavored brand extensions tended to maintain a relatively flat favorability curve. More consistent favorability for Cherry and Vanilla Coke was tied to the difference in topics focused on by consumers. Rather than topics about artificial sweeteners and celebrity endorsements, the flavored products tended to have much stronger associations with taste, preference, and pairing with food and/or experiences. For example, words like love, favorite, better, best, pizza, movie, and food were used much more often in regard to the flavored product lines.

There was a wide degree of variance in preference and favorability among men and women for the brand extensions. While general conversations for the Coca-Cola brand as a whole were split almost evenly, brand extension conversations were participated in much more often by women. Diet Coke saw the biggest bias in gender share of voice, with 62% of the dialog coming from women, compared to 49% for Coca-Cola overall.

Coca-Cola Brand Ext. Gender Distribution



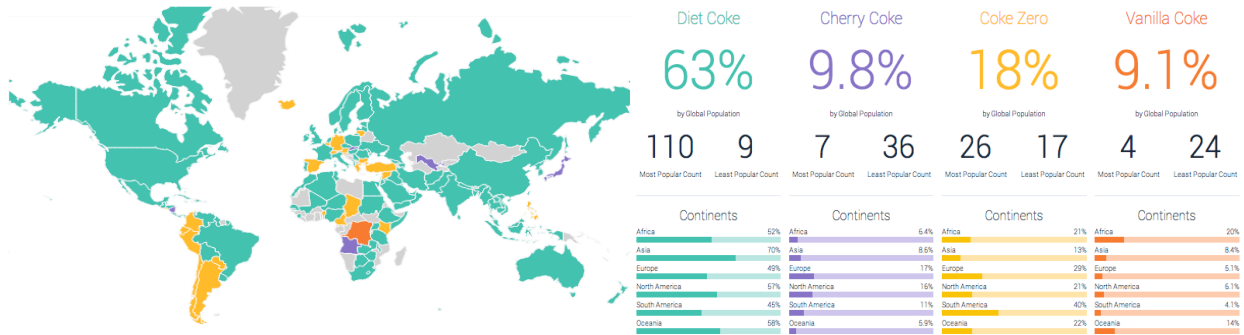
Coca-Cola Brand Ext. Gender Sentiment



This shift in gender distribution for Diet Coke was caused by women expressing greater concern over the health implications of artificial sweeteners and more displeasure with the Taylor Swift Diet Coke campaigns. These implications drove down favorability to a concerning 44%, 28% lower than for Coca-Cola overall. In contrast, women spoke very positively about Vanilla Coke, elevating it to the most favorably discussed product line in the brand extensions category.



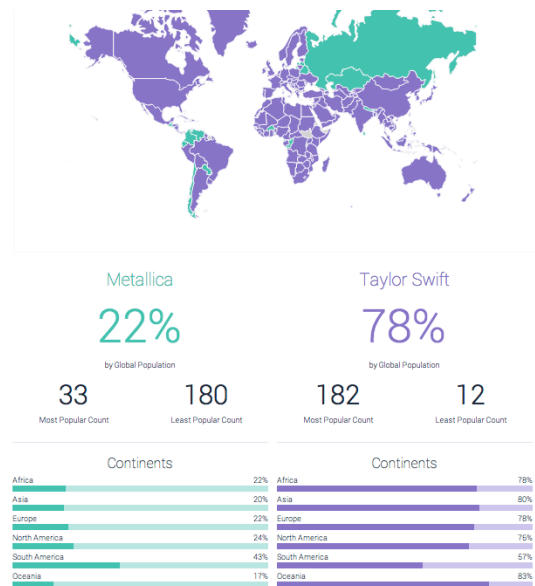
Coca-Cola Brand Extensions



Diet Coke, also referred to as Coca-Cola Light in certain geographies, was the most discussed brand extension worldwide, capturing 63% of the top brand extension conversations. However, there were several markets where the focus shifted.

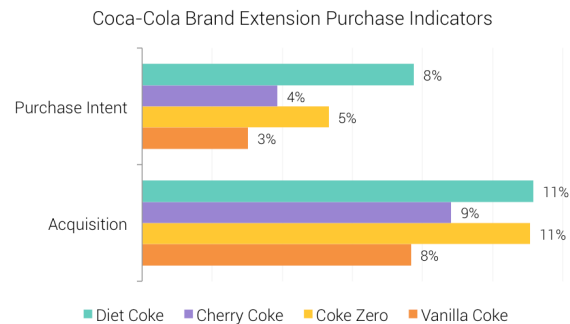
Coke Zero was discussed more in South America than Diet Coke, capturing the highest share of voice in 7 out of 13 of the continent's countries. The brand was also talked about more in Spain, Greece, Iceland, and the Philippines. The most popular topic of conversation related to Coke Zero was Metallica En La Antártida, or Metallica in Antarctica, a Coke Zero sponsored concert that took place in December 2013.

During this time period, the most common topics for Diet Coke in these same countries were Marc Jacobs and Taylor Swift. Worldwide, an extreme disparity existed during this time frame between the star-power carried by Taylor Swift and Metallica, heavily weighted in favor of Taylor Swift. However, further research uncovered a strong preference for Metallica over Taylor Swift in several South American countries. This finding has powerful implications for using social media research to perform celebrity preference analysis by geography in order to maximize campaign effectiveness and cost efficiency.

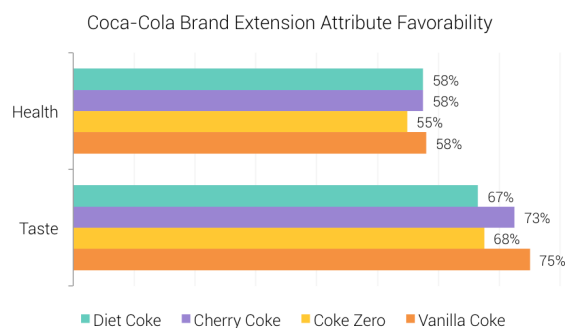


Coca-Cola Brand Extensions

The purchase indicators, purchase intent and acquisition, belong to a set of themes that can be detected in conversations. In addition to volume, themes also track sentiment, reporting share of positive versus negative. For instance, a negative appearance for taste would mean that the analyzed comment stated the subject being referenced does not taste good.



In this report, purchase intent and acquisition were calculated by taking the number of positive appearances for a theme into the total number of theme appearances. As a result, the percentages referenced above are not specific to all conversations, but only conversations containing themes. Due to how Infegy's system detects and calculates themes, the percentages referenced are also not inherently biased to differences in volume. Take for example the volume disparity between Coke Zero and Diet Coke. Diet Coke was mentioned in nearly 13 million more conversations than Coke Zero, yet conversations about acquisition occurred in the same frequency of 11% of all thematic conversations.



Understanding this, both Diet Coke and Coke Zero had a higher prevalence of broadcasted purchase indicators than Cherry or Vanilla Coke. This is surprising in that both Cherry Coke and Vanilla Coke were recognized as having higher overall favorability as well as higher favorability for taste. An interesting insight into one reason for this were a

significant number of posts discussing difficulty in being able to find Vanilla Coke at the stores in their geographic region.



Coca-Cola Brand Extensions Scoreboard



Diet Coke

Diet Coke won several key categories within Coca-Cola's brand extension analysis; however, there were several other important categories Diet Coke failed to capture, including brand favorability and taste. Specific to Diet Coke and Coke Zero, overall favorability for the brands was seen to be largely affected by consumer concerns about aspartame. As a whole, all brand extensions scored low on perceptions of health, mainly in regard to links between sweetened soft drinks and obesity.

	Diet	Cherry	Zero	Vanilla	Winner
Volume	16,464,373	2,756,808	3,122,680	2,924,817	Diet Coke
Brand Favorability	61%	74%	63%	71%	Cherry Coke
Positive Passion Index	Low	Low	Low	Low	Draw
Negative Passion Index	Low	Very Low	Very Low	Very Low	Draw
Global Geographic Preference	206	15	26	4	Diet Coke
US Geographic Preference	50	0	0	0	Diet Coke
Health (positive)	58%	58%	55%	58%	Draw
Taste (positive)	67%	73%	68%	75%	Vanilla Coke
Acquisition (positive)	11%	9%	11%	8%	Draw
Purchase Intent (positive)	8%	4%	5%	3%	Diet Coke

Pepsi Brand Extensions

Diet Pepsi

Volume: 1,078,209

Favorability: 64%

Pepsi Next

Volume: 318,216

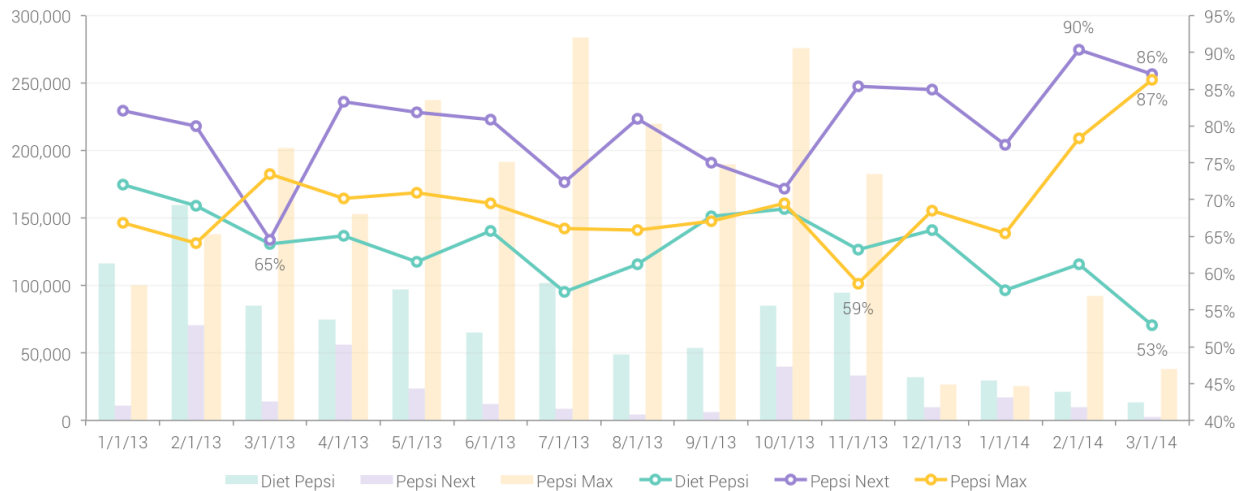
Favorability: 80%

Pepsi Max

Volume: 2,349,168

Favorability: 69%

Pepsi Brand Extensions Trends 1/1/2013 - 3/10/2013



Pepsi's most discussed brand extensions were Diet Pepsi, Pepsi Next, and Pepsi Max. Unlike Coca-Cola, flavored soft drinks were completely absent in regard to Pepsi's most discussed extensions. Even so, much like Diet Coke, consumers were just as concerned that Diet Pepsi and Pepsi Max contain the artificial sweetener aspartame. Prior to June 2013, Pepsi Next had also used aspartame as a sweetener but has since switched to stevia. The switch prompted positive consumer reactions, leading to an increase in overall brand favorability.

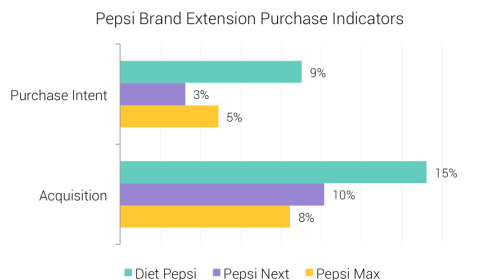
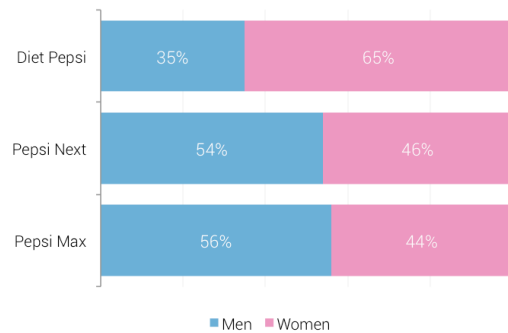
Pepsi Max reached peak favorability for the 14-month period through a clever revisitation to an earlier campaign called *Pepsi Max & Jeff Gordon Present: "Test Drive"*. The campaign capitalized on an article authored by blogger, Travis Okulski, who called in to question the authenticity of the original video prank featuring Jeff Gordon. The article was widely shared. Jeff Gordon and Pepsi levied their payback on Okulski by pulling off the same prank on him. By March 10, 2014, the YouTube video had amassed 14.5 million views.



Pepsi Brand Extensions

Much like Diet Coke, women were seen to have a much stronger preference for Pepsi's diet offering. Pepsi Next and Pepsi Max, both more male oriented in their marketing strategies, hit their target consumers effectively, as each was discussed to a greater degree by men compared to women. Pepsi Max was referenced most by men in relation to racing, reinforcing Jeff Gordon as a powerful spokesperson for the brand. Male dominated Pepsi Next conversations most often referenced the Super Bowl and football.

Pepsi Brand Ext. Gender Distribution

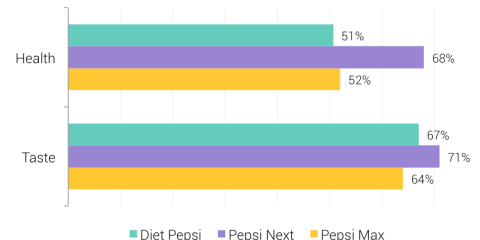


Diet Pepsi, while discussed in half as many conversations as Pepsi Max, received much more frequent mentions of acquisition and purchase intent. Interestingly, purchase intent and acquisition were discussed 70% more by women on average. This partially explains why Diet Pepsi registered higher in these themes overall as the majority of Diet Pepsi

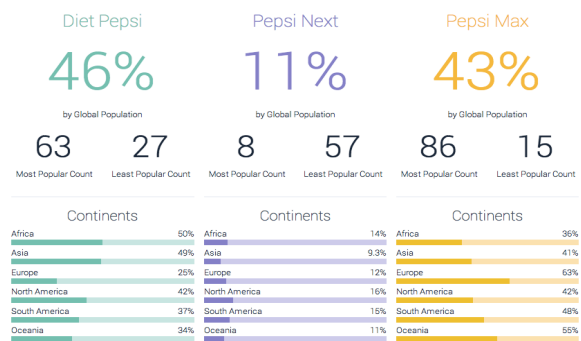
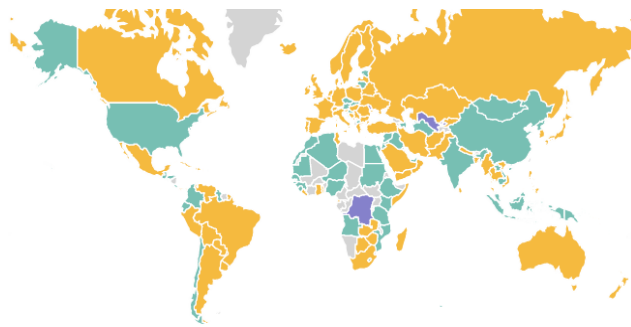
posts were created by women. Further analysis also revealed a difference in conversation topics. Both Pepsi Next and Pepsi Max were found to be discussed more often in reference to their advertising rather than the attributes or paired experiences of the drinks on their own.

In contrast, Diet Pepsi conversations were focused more on the drink itself with adjectives including love, taste, good, and great, as well as complimentary topics like food, friends, and movies. Finally, Pepsi Next, the only product that no longer contains aspartame, was viewed more favorably in terms of health and taste.

Pepsi Brand Extension Attribute Favorability

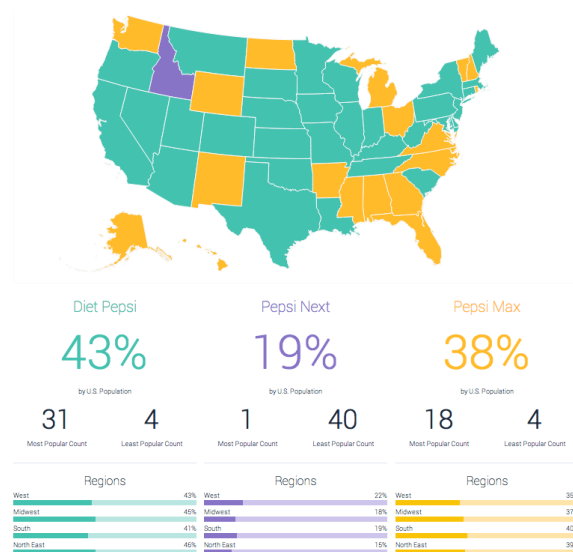


Pepsi Brand Extensions



Pepsi's brand extensions had a varied distribution of global preference. More countries preferred Pepsi Max, but a greater percentage of the overall global population preferred Diet Pepsi. Europe in particular showed a strong inclination for Pepsi Max over Diet Pepsi, capturing 63% of the total share between the three brands.

Although Pepsi Next was not found to have a significant portion of the overall conversation globally, the brand did see a stronger position within the United States, capturing 19% of the total conversation share. A thought-provoking discovery, concentrated preference was found for Pepsi Max in the Southeast region of the US. By filtering to this area, it was found that Pepsi Max conversations were mainly focused on NASCAR, Jeff Gordon, and an advertisement featuring NBA basketball star, Kyrie Irving, called "Uncle Drew."



Further supporting findings from the thematic research on the previous page, higher volumes of conversation for Pepsi Max and Pepsi Next were witnessed primarily because of celebrity endorsements as well as advertising campaigns.



Pepsi Brand Extensions Scoreboard



Diet Pepsi Pepsi Next

The draw between Diet Pepsi and Pepsi Next is an intriguing result. The categories won by Diet Pepsi, namely consumer preference, acquisition, and purchase intent, are all positively related to sales. However, Pepsi Next won taste and health, product attributes that would be thought to be the most important aspects considered during the purchase phase. Pepsi Next's victory in these categories reinforces the brand's recent marketing strategies focused on the taste and more natural ingredients with messaging like, "serious taste, sweetened naturally". In comparing conversation volume between the three brands, Pepsi Next accounted for just 8.4% of the overall conversation. From this, it seems Pepsi Next's biggest pitfall was consumer awareness.

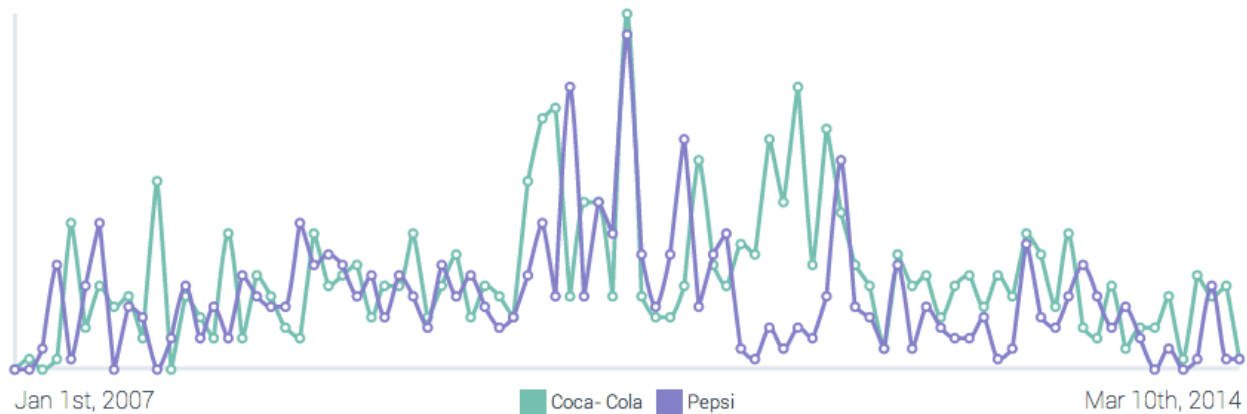
	Diet	Next	Max	Winner
Volume	1,078,209	318,216	2,349,168	Pepsi Max
Brand Favorability	64%	78%	69%	Pepsi Next
Positive Passion Index	Low	Low	Low	Draw
Negative Passion Index	Low	Very Low	Very Low	Draw
Global Geographic Preference	63	8	86	Pepsi Max
US Geographic Preference	31	1	18	Diet Pepsi
Health (positive)	51%	52%	69%	Pepsi Next
Taste (positive)	67%	64%	71%	Pepsi Next
Acquisition (positive)	15%	10%	8%	Diet Pepsi
Purchase Intent (positive)	9%	3%	5%	Diet Pepsi



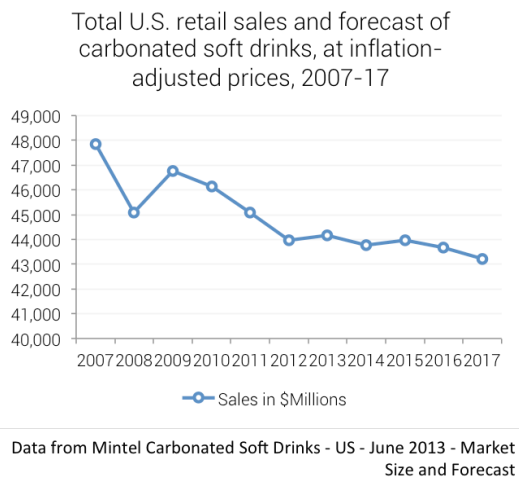
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Coca-Cola vs Pepsi Historical

Coca-Cola vs Pepsi Positive Acquisition (Share of Universe) 1/1/2007 - 3/10/2014



The above chart maps out stated positive acquisition for Coca-Cola and Pepsi as a percent of total social conversations from January 1, 2007 through March 10, 2014. Because the number of online conversations have increased, and continue to increase, this form of measurement gives a far more accurate view than simply using volume.



What is evident is that Coca-Cola and Pepsi are declining in the number of conversations referencing acquisition. This is in contrast with general conversations about the brands, which have increased overall, in part due to Coca-Cola and Pepsi leveraging social marketing. However, as witnessed in both the Coca-Cola and Pepsi brand extension analyses, brand conversations are frequently focused more on the celebrity endorsers than the brand or product attributes.

From this it seems that although both brands remain top-of-mind for consumers, this constant stream of awareness is not increasing consumption. In fact, a report by Mintel points to further declines in soft drink sales through 2017.

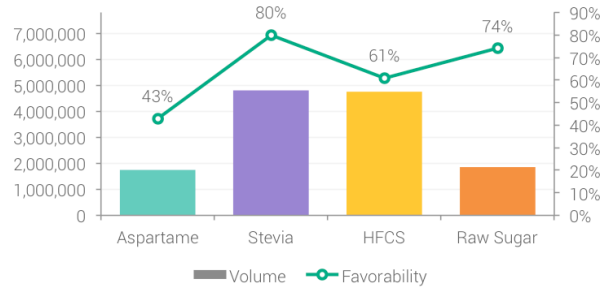


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Sweetener Profile

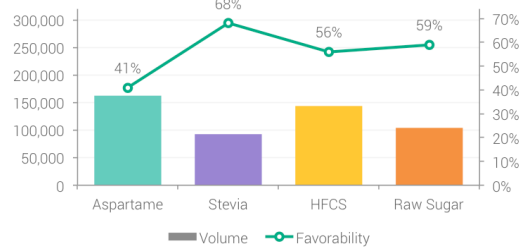


General Sweetener Trends

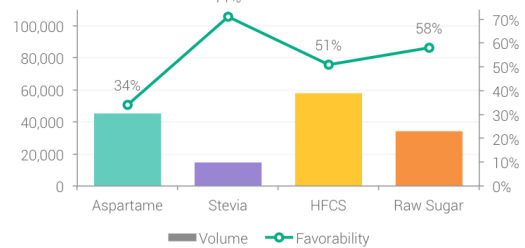


In the general sweetener conversation, aspartame was talked about the least and with the lowest favorability, coming in at 43%. However, within conversations specifically about Coca-Cola, aspartame was the most referenced sweetener, it also received the lowest favorability. For Pepsi, aspartame was the second most referenced sweetener and also the most negatively discussed. One of the top concerns consumers voiced about aspartame was cancer, followed by other health issues of obesity, childhood development, diabetes, and depression.

Coca-Cola Sweetener Trends



Pepsi Sweetener Trends

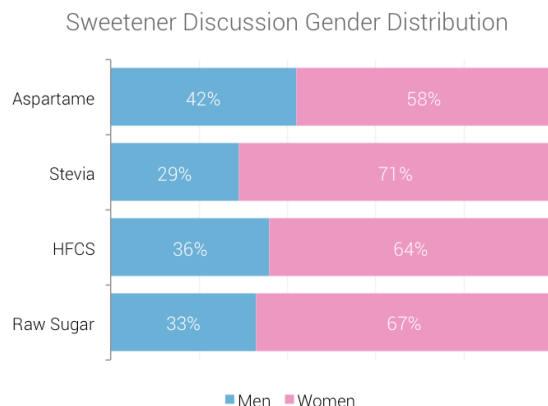
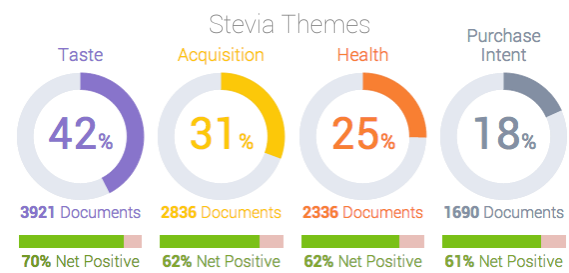
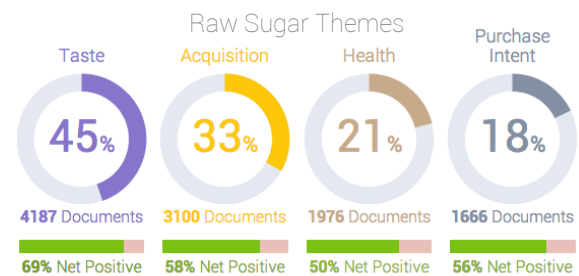


Sweetener Profile

Worldwide, stevia received the majority of the share of the conversation and the highest overall favorability. For Pepsi and Coca-Cola, stevia represented the lowest share of the conversation, but was overwhelmingly discussed with the highest favorability. Surprisingly, raw sugar did not achieve much higher favorability than high fructose corn syrup.

In comparison to stevia, raw sugar, while not spoken of as positively, was comparable thematically, achieving higher favorability for taste, slightly more acquisition and equal intent to purchase. Again where stevia outshone sugar was in the health theme.

Looking back through 2007, stevia conversation volume and consumer favorability have gradually increased year-to-year. What is evident from this is that even when subjected to greater scrutiny, consumer perceptions of stevia persist in being positive



Just as with discussions about the diet brands, women were found to be more involved in sweetener discussions than men. Even greater participation by women was found in conversations started by parents on the subject of sweeteners and their children with mothers contributing 62% of all posts.

Conclusion & Method

Although Coca-Cola and Pepsi remained top-of-mind for consumers, according to both industry reports and social media analysis, this constant stream of awareness did not increase consumption. Instead, what increased was growing consumer concern over the sweeteners used both in the original formulas and the diet and light brand extensions meant to serve as healthier options. Whereas the scrutiny for aspartame was previously concerned with the ingredient's benefits for fighting obesity, frightening topics like cancer, depression, and childhood development problems now dominate the majority of conversations. Raw sugar and high fructose corn syrup are still highly correlated with obesity in the mind of consumers. However, high fructose corn syrup carries with it much greater concerns of long-term health problems. The only sweetener that was viewed favorably and not commonly associated with major health concerns was stevia.

In conjunction with increasing health consciousness, the shift in consumer preference away from soft drinks means that retention must be a priority for soft drink makers going forward. Recognizing this, Coca-Cola and Pepsi should tread carefully not to alienate current customers loyal to their brands. The most detrimental incidents to brand equity for both brands occurred due to their choices in celebrity endorsers and resulted in social campaigns calling for consumers to boycott.

Research Methods

This report was created using Infegy Atlas. Infegy Atlas is a social media monitoring and research platform that utilizes proprietary automated natural language processing technology and Infegy's in-house repository of online dialog dating back to 2007.

Infegy Atlas operates on a simple but powerful query language similar to what you would use for a Google search but with more operators, filters and options. The queries used for this report are available upon request.

