PCB
MARKETING ANALYTICS

# Powerade Case Report

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## Executive Summary

PBC Marketing Firm has been assigned the job of evaluating the sports drink brand, Powerade. Historically, Powerade has fallen short to its main competitor, Gatorade, when examining the sports drink market. Overall, we believe that the discrepancy in sales between Gatorade and Powerade can be attributed to a perceived lack of quality, awareness, and advertising of Powerade.

Our firm has conducted a marketing research study to gather data and analyze the reasons for Powerade's lack of sales, using Gatorade as a benchmark for our study. The study began with a survey for respondents to indicate their opinions about Powerade, Gatorade, and other sports drink brands. The survey was sent to 3,000 individuals, and after weeding out respondents that failed to meet quality checkpoints, 743 responses were analyzed. After gathering and interpreting the data gathered, we found the Powerade has both an overall lower brand perception and lower product usage than Gatorade.

After considering our data analysis, it is our recommendation that Powerade institute a brand ambassador program, which would provide immediate feedback from consumers who try the samples of Powerade, and increase brand awareness/ first time triers of the product. This marketing plan will be a better initiative for Powerade than for any other brand because, while Gatorade uses bigger advertisers, Powerade has the ability to acquire immediate feedback from prospective customers. Powerade, although presently less popular than Gatorade, is still an established brand, which will allow for audience recognition and willingness to participate in the "Power Hour" events.


## Background

PCB Marketing Firm has been tasked with creating a case report for the sports drink brand, Powerade. Gatorade and Powerade are the two brands that have dominated the majority of the sports drink market, but Gatorade has always been the indisputable forerunner. Together, Gatorade and Powerade make up approximately 98% of the sports drink market. However, Gatorade makes up a whopping 69.5% of the market, while Powerade makes up 28.8%. Our firm has gathered an abundance of data and information in order to better understand why Powerade continually stands in the shadow of Gatorade.

To provide an insight into the history of the sports drink category, it is important to consider the past and present sales trends within the market. The sports drink industry is an $8B one in terms of sales consumption, with Gatorade showing recent annual sales of about $5B and Powerade sales being around $1.2B. Although sales have dropped marginally in the category, the market leaders have continually stayed on top.

There are numerous reasons why Gatorade and Powerade dominate the sports drink market, and numerous reasons why Gatorade continues to overshadow Powerade in sales. Both brands are widely available to consumers, but that is not all that makes a sports drink successful in the market. A successful product and brand must be perceptible by consumers as being of great quality, taste, and use to the drinker. It must also be recognizable and preferable as the best choice for the consumer's specific needs.


In this case, the metaphoric "elephant in the room," is the first mover's advantage that Gatorade has in the sports drink market. Gatorade was established in 1965, exploding on the sports scene as the first sports drink that provided athletes with both hydration and electrolytes for maximum performance. Until 1988 when Powerade was introduced into the market, Gatorade had complete competitive advantage.. Although Powerade rose to the top as a market leader, they have never been able to create enough sales to truly compete with the trailblazer that is Gatorade. It is easy to overlook the positive aspects of Powerade due to the staggering sales margin between the two market leaders, but Powerade does have its advantages. For example, Powerade is significantly cheaper than Gatorade (roughly $1.52 per Gatorade bottle versus the 10 for $10 deal a consumer can usually get on Powerade). Because of this, customers are more likely to purchase a greater number of bottles of Powerade per purchase than Gatorade customers. Although Powerade does offer consumers these advantages, there are identifiable reasons as to why they continue to lag behind Gatorade.

From a consumer standpoint, Gatorade seems to rise above the rest because of the inherent benefits a customer may receive from the product. Historically, Gatorade has been perceived by customers as being the higher quality brand when compared to Powerade. While Powerade may be the cheaper brand, the low cost could be working against them in terms of perceived quality. Moreover, Powerade is frequently offered in fast food chains as an alternative to sodas or water, which could be another reason that it is perceived as a lower quality product. Gatorade is trumping Powerade in terms of variety as well. Powerade offers two main products, the original Powerade drink and Powerade Zero (a zero calorie option). While these two products

do relatively well in the market, Gatorade has a much greater variety of drinks available for a greater variety of consumers. Therefore, when a customer is shopping for sports drinks, Gatorade is the more visible option, and the customer is likely to find a subset of Gatorade that fits their needs. A final reason for Gatorade's major lead on the market is their advertising and online presence. Powerade does not advertise as frequently or as well as Gatorade, which is apparent when looking at sales.

When looking at the sports drink category as a whole, Powerade is presented with a challenge to bridge the gap between themselves and their main competitor, Gatorade. The main task that Powerade must accomplish is changing the consumer perception that they are the lower quality brand in the market. To increase sales to the level of those of their competitor, Powerade must be perceived by customers as being of equal or greater value than Gatorade by taking advantage of the various growth opportunities they are presented with. Powerade has the opportunity to survey both buyers and non-buyers to discover how an extended product line could be advantageous. It is also imperative that Powerade increase their online presence (either through advertising or increased use of smart social media), as well as increase/ better their televised advertising. Throughout our case report, PCB Marketing will continue to examine the strengths and weaknesses of Powerade, and the opportunities that are available the help bridge the gap between the top two leaders.

## Hypotheses

Here, we will discuss various implications in the form of hypotheses that may have caused the brand, Powerade, to overall fall short from its sports drink competition, Gatorade. In

order to fully understand what makes Powerade different (i.e. taste, advertising, etc.) from Gatorade, hypothesis must be tested and researched. We have provided six hypotheses that we believe are issues that the brand needs to solve in order to have more control of the U.S. sports drink market, and make the demand for their product to increase.

***Advertising:*** In this day and age, social media presence is critical in order to be relevant in almost any market that targets athletes and younger people. Social media connects people and is the place that helps introduce these people to products. Subliminally, people see ads on the side of their screen when browsing Instagram, Facebook, Twitter, and other social networking sites. With that being said, Gatorade has a stronger social media presence than Powerade does. On Twitter, Gatorade has twice the number of followers that Powerade. Gatorade has 2 million more likes than Powerade on Facebook. When it comes to Instagram, Powerade has 124,000 followers, whereas Gatorade has 1,000,000 followers. It costs to have more advertisements, but more awareness could help the brand become the brand that people think about more often.

***Flavor:*** When thinking about something that you are using to quench your thirst, you want it to be tasty and enjoyable. Often times, water is the ultimate thirst quencher, but it is tasteless-which is where sports drinks come into play. While Gatorade has its original flavors, it has extended its product line by adding G Series, which is geared to help athletes before, during and after training. Gatorade has also released a product called "Gatorade Organic," which offers the same benefits as original Gatorade but with fewer, organic-only ingredients. Furthermore, Gatorade offers "G2," a lower calorie, lower carb alternative to regular Gatorade. Powerade has only expanded its product line to a calorie free option, Powerade Zero. With that, Powerade is

lagging behind in having enough variety that are of quality to the consumer to meet the satisfaction of their respective taste buds.

***Taste:*** In addition to lack of variety when innovation and variety when it comes to flavors, consumers do not like the taste of Powerade. This is an important attribute of any product. As mentioned earlier, Powerade lacks a variety of flavors, while its competitor Gatorade has released multiple new products and flavors. If Powerade wants to increase its sales, it must improve its taste.

***Value:*** Consumers do not think Powerade is a provides a good value for its price. Powerade and Gatorade are brands operating under two major companies, Coca-Cola Company and PepsiCo. (respectively). They produce a wide range of products outside of just sports drinks causing their focus and priorities to change based on what makes them the most revenue. Powerade is manufactured and marketed by Coca Cola, a powerhouse in the soft drink market. This could mean that less resources are allocated to increasing the value of its sports drink, Powerade.

***Regular Use:*** Consumers do not regularly use Powerade. Often brands and companies find themselves in tough situations due to negative media attention. When this happens, sales of a product may decrease due to the stereotype that has now been placed upon said product or company. Powerade is no exception to this happening. In 2014, Powerade was pressured to remove a controversial ingredient, brominated vegetable oil, in its product, thus tainting its image. Being that the product is often used to put out flames and is banned in most counties outside of the U.S., it was off-putting to most as to why they deemed it a necessary ingredient to sell to their consumers for consumption.


***Hard to Find:*** It is clear that Powerade is dominated by Gatorade. These two brands make up most of the sporting drink market. Gatorade is looked to as being a high-quality drink, while Powerade is looked to as cheaper and overall a lower quality buy. There needs to be a way for Powerade to break barriers of being number two in this U.S. market and finds it's forte. While Powerade is more relevant outside of the U.S. due to its expansive target market, Gatorade is more relevant in the U.S. due to its condensed target market. To increase its sales, Powerade needs to be easier to find in the U.S. market.

## Methods

In this section we will explain the methods we took to gather data about Powerade, and calculations made prepare our data for analysis. There were multiple procedures involved in acquiring our data including a substantial sample size, diverse demographics, and specified time period to gather data. Included in this section are graphical representations to better explain the steps we took to prepare the data. Each method allowed us to learn about our sample size and gain a better understanding of sports drink consumers.

### *Gathering Data*

This field study began in the Fall Semester of 2017. A trial survey was sent out October 11, 2017. Our research team ran the survey for a week and closed it October 18, 2017. This survey was designed to collect data specific to supporting or refute our hypothesis, and was distributed to a small sample size.

On October 23, 2017, a survey along with a cover letter was distributed via email to 3,000 potential participants. With completion of this survey, respondents were given a monetary

reward for their time and participation (confirmed at the end of the survey). The initial number of survey respondents drew 840. However, we embedded a question within the survey that helped filter out non-serious respondents. The question stated "Yesterday, I had a fatal heart attack after watching television." This question was clearly separate and irrelevant to the data, and it allowed us to extrapolate a better quality sample group. Within our raw data spreadsheet, we were able to code this field an equation that would bring back "1's" for the respondents who failed the quality check, and "0's" for respondents who passed the quality check. The final sample size we were able to analyze was **743** respondents. We found this to be a substantial sample size and continued our analysis. A pivot table is provided below for a graphical representation of the survey quality check.

The table is formatted to separate the respondent's answer to the Powerade and Gatorade attributes. If the respondents answer was coded with a "0" this meant they passed the quality check, but coded a "1" if they failed. The 743, as mentioned earlier is the final sample gathered after the quality check. The 18 represents the respondents who passed the Gatorade quality check, but failed the Powerade quality check. The 15 represents the number of respondents who failed the Gatorade quality check, but passed Powerade quality check. The 64 represents respondents who failed both quality check questions.

### *Survey Design*

Our research team formed multiple hypothesis designed to answer our overall research question: Why are Powerade's sales consistently lower than the market leader, Gatorade? In order to avoid bias and form benchmarks, we included questions about Powerade's competitors;

Gatorade, All Sport, and First Place. Gathering information about Powerade's competitors allowed us to minimize bias in the survey, and form a benchmark to analyze the data. The initial questions of the survey were more general questions about sports drink awareness and consumption. For example, one question asked the respondent to identify which brands he/she was aware of. We listed four options: Gatorade, All Sports, First Place, and Powerade. The respondent could select one or more of the brands. As the respondent moved on the later questions, they were asked more specific questions about their relationship with Powerade. The same questions asked about Powerade were also repeated with Gatorade. This was crucial to the analysis and comparison of Powerade and its biggest rival. The questions specific to gathering data about Powerade and Gatorade listed 15 statements, to which respondents would answer on a likert scale ranging from "Strongly Disagree" to "Strongly Agree". Within the spreadsheet containing the results, we prepared the data by removing responses that pertained to a consumers' unfamiliarity or awareness on the brands. We omitted those answers by removing all the 6's and 7's, numbers correlated with the responses "I'm not sure" and "I am not familiar with this brand".

### *Demographics*

The next method we took to prepare the data was interpreting demographic data. In our survey, respondents were asked a series of questions regarding their personal classification. These questions were related to their completed education level, total household income, age, gender, household size, marital status, state, and ethnicity. In our raw data set, we found some respondents did not respond to every question. In order to filter out these null responses, we

created a code that omitted the null responses from our calculated averages. This allowed us to get a more accurate calculation of means. In addition to null responses, some participants selected responses that did not fall within the classifications we provided. These responses were also taken into consideration when coding the results, and omitted from the calculation of the means. .

The first row contains the count of respondent's in the survey; the demographic means and percentages follow (Reference Appendix B for an overview of the respondents' demographics.). In addition to these variables, our survey also contained a question asking which state the respondent was living, but we did not code this portion of the survey.

The average income results were presented in thousands to keep the data concise. We provided seven response options, beginning the yearly income range at $25,000. And below and capped the income at $151,000 or more. Respondents' average annual income was about **$56,000**. Null responses and responses outside the classifications we provided we omitted.

For age classification, we provided nine response options. The ages we grouped by 5's, beginning as the range 20-24 years and were capped at 60 years or older. The average age was around **34.5** years. Null responses and responses outside the classifications we provided we omitted.

The next variable we surveyed was the participants' ethnic identity. To narrow down classifications, we coded the ethnicity variable to bring back an average of participants who were Caucasian. If the participant identified as White/Caucasian, the fourth option, they were coded with a "1", any other responses were coded with a "0". Null responses and responses outside the

classifications we provided we omitted. This calculation concluded that **77%** percent of survey participants identified as White/Caucasian.

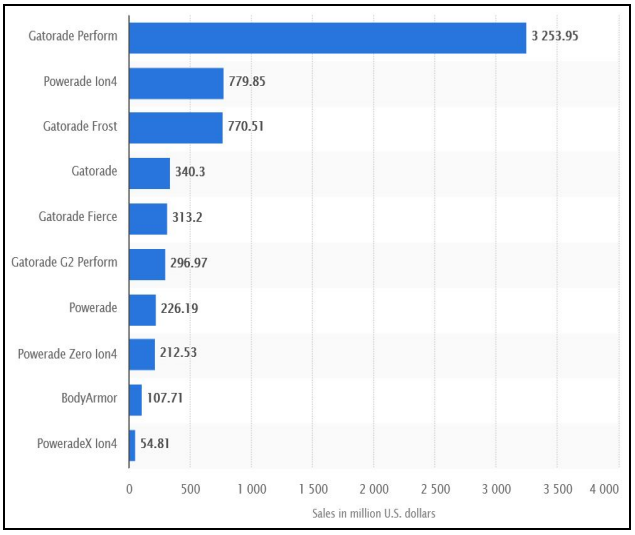
The fourth variable we surveyed was the level of education completed. The survey provided seven response options. However, to better analyze the data, we took the averages of respondents who had completed college or more; this included options 5, 6, or 7. This calculation omitted any respondents who identified with options "some high school", "high school graduate", and "associate's degree". The results of the mean calculation concluded that 47% of respondents completed college or more. Null responses and responses outside the classifications we provided we omitted.

The fifth variable tested was the participant's gender identity. For our survey we provided two options, "Male" or "Female". In order to get a better idea of respondents who were female, we coded females with a "1", and males with a "0". Our calculations returned that 43% of respondents identified as female. Null responses and responses outside the classifications we provided we omitted.

The sixth variable we calculated was whether the respondent was married or not. For this classification we provided six options, but focused our mean calculation around respondents who were married, option 3. If respondents chose option 3, they were coded with a "1" and coded with a "0" for every other selected option. Our calculation returned that 36% percent of respondents identified as married. Null responses and responses outside the classifications we provided we omitted.

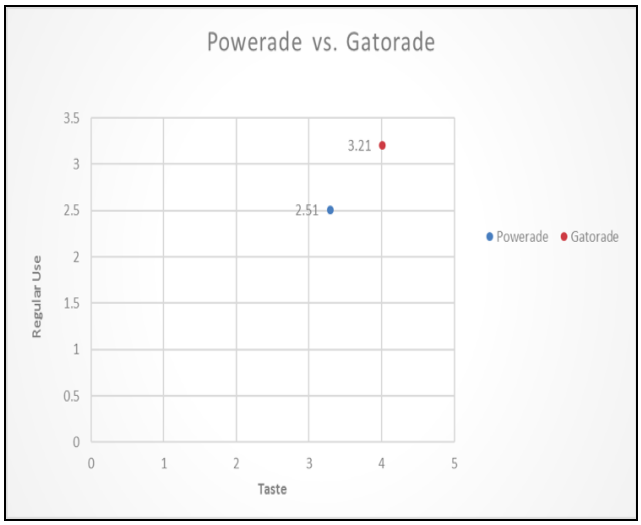
The last variable we calculated identified the percentage of respondents' whose household had any children under age of 18. The respondents answered with either a yes or a no. For our analysis we coded the data to identify the households with any children under age 18 that currently live with them. If they answered yes, the respondent was coded with a "1" and coded with zero if they answered with a no. Our calculation returned that 32% of respondents currently had children under age 18 living with them. Null responses and responses outside the classifications we provided we omitted.

## Results




***Lower Sales:*** According to Statista.com, this graph shows significantly lowers sales for Powerade products as compared to Gatorade.

## Product




***Taste and Use:*** Above, is a perceptual map (enlarged in Appendix C) to show the position of Powerade's product in terms of taste and variation of flavors in comparison to Gatorade. The blue dot represents Powerade's average responses for taste and use, while the red dot represents Gatorade's average response for taste and use. Powerade's average response rate for taste was 3.29 compared to Gatorade's average response rate, 4.01. While these numbers appear insignificantly different, one cannot draw a conclusion just by looking at these numbers. After running a Paired Samples Test in SPSS (See Appendix C), the Sig (2-tailed) test shows a value of .000, meaning we are essentially 100% sure that there is in fact a difference in the mean between the consumer perception of the taste of Powerade and the consumer perception of the taste of Gatorade. After running a SPSS Paired Samples Test for the consumer's regular use, we concluded with the same results (See Appendix E). The Sig (2-tailed) test shows a value of .000, meaning we are essentially 100% sure that there is in fact a difference in the mean between the consumer's regular use of Powerade, and the consumer's regular use of Gatorade.


***Flavor:*** The last hypothesis test we ran was a SPSS Paired Samples Test to compare the means of consumer's perception of Powerade's and Gatorade's variety of flavors (See Appendix D). Similar to the results of taste and use, returned a Sig (2-tailed) value of .000, meaning we are essentially 100% sure that there is in fact a difference in the mean between the consumer's perception of flavor variety of Powerade, and the consumer's perception of flavor variety of Gatorade.

## Price

***Value:*** When testing the consumer's perception of value of Powerade versus Gatorade, the SPSS Paired Samples Test returned a Sig (2-tailed) value of .631 (See Appendix F). Because this value is greater than .05 we would accept that there is not a difference between the consumer's perception of value of Powerade and Gatorade. This allows Powerade to allocate advertising expenses elsewhere.

## Distribution

***Hard to Find:*** The hypothesis stating that Powerade is harder to find than Gatorade is supported by our SPSS Paired Samples Test (See Appendix G). The test brought back a Sig (2-tailed) value of .000. Because this value is less than .05 we would accept that there is a difference between the consumer's perception of finding of Powerade products versus finding Gatorade products.

## Promotion

***Advertising:*** After comparing the means of consumer's perception of advertising for Powerade versus Gatorade, the SPSS Paired Samples Test returned a Sig (2-tailed) of .000 (See Appendix H). We are essentially 100% sure that there is in fact a difference in the mean between the

consumer's perception advertising for Powerade, and the consumer's perception of advertising for Gatorade.

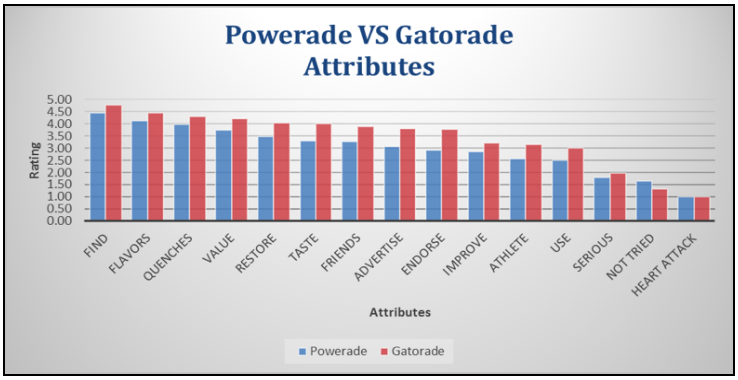
## Awareness

99% of people surveyed were familiar with the gatorade product. 95% of the people surveyed were familiar with Powerade. Awareness is critical in order for consumers to purchase a product. Being that the awareness in the numbers seems to be very close, we can't fully determine what a number means just by looking at it (Appendix I).

## Used in Past 30 Days

In the past 30 days, our survey showed an average of 3 Gatorade bottles were consumed by customers, while an average of 2 Powerade bottles were consumed. Our data shows that when compared, Gatorade outranks them and is purchased more often. Suggestions for bettering these numbers have been set in our recommendations.

## Attribute Ratings




When all attributes are accounted for, Powerade is significantly behind and needs to perform better in each category.


## Recommendations

### *Possible Solutions*

In today's technology driven society, we recommend Powerade could reach out to fitness gurus on Youtube to promote their products. This tactic is similar to the popular vitamin supplement brand, SugarBearHair. For this recommendation to work, Powerade would contact influential Youtubers, having at least 100K subscribers. The pros of this recommendation would include the convenience of an internet based solution, no advertisement design fee, and potential exposure to thousands of consumers from one platform. The downsides to this recommendation is the competition of other brands who also contact Youtube influencers. Powerade must stand out among the hundreds of other companies who flood the influencers' emails. While this solution is cheaper, it is short term and not the strongest solution to increasing sales.

An alternative in solution for Powerade would be to implement a brand ambassador program. This type of program has been seen to be successful with the energy drink company, Redbull. The advantages of this program would be the immediate feedback of consumers who try the samples of Powerade, increased awareness, and first time triers of the product. The downside to this solution is the expenses the program requires, such as hiring ambassadors and overhead, providing samples merchandise, and providing a method of transportation to the ambassadors.

In our data analysis we concluded that Powerade's success drivers were the consumer's perception of its taste and their regular use of the product. This was analyzed from an independent sample t-test, comparing the means of the triers and non-triers of Powerade. The

p-values were less than .01 and revealed that there was a significant difference between the means of the triers and non-triers. The solution we recommend is to introduce a brand ambassador program will optimize these success drivers.

With this recommendation, like Redbull, Powerade can target select group of individuals from key communities in the market. The selected individuals are responsible for spreading awareness and receiving consumer feedback. Free sample bottles will be distributed to the community via brand ambassadors.

In our group's experience with Redbull's Wings Team, they are a high-energy group with a passion for the brand they promote. This is exactly what Powerade needs to get it sales on par with Gatorade. Implementing an ambassador program will increase awareness of the brand and provide better feedback of consumers' perception of the brand, while getting consumers involved with the marketing of the brand. Of course, we will have PowerTrainers (the name for people that train workers on their positions) in each city to train these ambassadors on their job.

We believe this marketing plan will be a better initiative for Powerade than for Gatorade or any other sports drink product, because Gatorade uses bigger names to market its product. Powerade finds it hard compete on Gatorade's level of sponsorships. However, it is still a well-known brand, so a brand ambassador will find it easier to distribute and acquire feedback for the established brand.

Aside from the need for Powerade to increase spending on advertising and increase their presence on social media, the "Poweraders" (essentially the street team), is what will set Powerade apart and make the final push to increase sales and competitiveness with Gatorade.

Additionally, to address taste, Poweraders will hand out samples of new flavors for customers to try. When a consumer tries a new flavor, they will be presented with the opportunity to fill out a quick survey regarding the taste. By completing the survey, customers will receive a piece of Powerade merchandise (i.e. a wristband, a pair of sunglasses, lanyards, or a t-shirt). The goal is to add incentive to make people more willing try a new flavor and report on it.

## Impact to Price, Product, Distribution, and Promotion

***Price:*** The implementation of the Power Hour team would not affect the price of Powerade in any way. While the cost of distributing sample bottles is included in the cost of the program, this will not increase the cost of Powerade for either consumers or producers. There will simply be more bottles produced to provide for the Power Hour events.

***Product***: The goal of our recommended program is to improve the percepted product quality in the eyes of consumers. By making Powerade a more hip, millennial favored brand, our program will make the product more desirable to consumers and, ideally, more desirable than Gatorade. This program will also allow for immediate consumer feedback, which will help in future product development.

***Distribution***: Our program will make Powerade more widely available to high school and college students, therefore making them the preferred brand for these individuals, their friends, and, for high schoolers, their parents. While the Power Hours will indeed create another place to consumer Powerade, our program does not change the number/types of retailers that carry the brand. The reason for this is the wide availability of Powerade as is.

***Promotion:*** The main aspect of our recommended program is for promotion's sake. The Power Hour events will offer extreme promotion to large masses of people in the hopes of changing the quality stigma surrounding Powerade at the moment.

## Consequences and Results

***Labor Costs:*** To initiate this program, there are associated costs to consider. This program will run in the top 50 major cities in the U.S. Powerade will hire 50 managers, aka PowerTrainers to lead and organize the ambassadors, aka Poweraders. We recommend Powerade hire 10 Poweraders for each of the 50 major U.S. cities. This would give Powerade a total of 500 Poweraders. Each PowerTrainer will hold a full time position with a salary of 40K per year (average salary of ambassador manager via Glassdoor). This would equal a total of $2.0M in overhead costs. The ambassadors will be compensated at $12 per hour(average compensation for ambassadors via Glassdoor), averaging 12 hours per week. The total cost of Poweraders would be about $4.0M per year. The labor cost calculations are broken down below.

***Sample Bottles and Promotional Merchandise:*** The Poweraders will distribute free sample bottles to consumers at each event. We estimated the Poweraders will distribute 1M bottles per year at a cost of $1 per bottle. This brings the sample bottles to a total cost of $1.0M per year. In addition to sample bottles, the first 50 people at each event will receive complimentary Powerade merchandise: wristbands, sunglasses, t-shirts, and lanyards. In return we will ask them to complete a survey regarding the taste. The total cost of the promotional material is $2.4M. The details of the costs are broken down below.

***Company car:*** Our program will require a method of transportation for the Poweraders to get around the city. The program will provide 5 cars per city (50 cities). This equals 250 cars total. We chose, Kia Niro as the company car of choice, because its design is unique and it is fuel efficient. The cost of this vehicle is around $23,000 MSRP via Edmunds. In addition to the purchase price of the car. The program will incur costs for insurance, gas, registration fees, taxes, repairs, and other miscellaneous costs.


***Total Cost:*** Assuming Powerade spends $20M per year on advertising, we added in the new advertising costs of $17M. This brought Powerade's total cost of advertising to $37M per year.

***Sales Increase:*** To determine the sales increase of our new program, we divided the new advertising cost by the only advertising cost. This would give Powerade a estimated advertising increase of 85%. This is a significant increase in advertising expenses. However, given the AED of 8.5%, the sales will increase 8.5% and bring in $110M in revenue per year. The calculations of this increase is broken down below.

***ROI***: To calculate the Return on Investment for this program, we first calculated the 50% gross margin, the percentage of revenue that will be retained after factoring cost of goods sold. The next step to calculating the ROI is to find the gross marginal increase. With an increased yearly revenue of $110M, the increased gross margin is $55M. The third step to calculating the ROI is factoring in the total costs. This resulted in an ROI of 223% if Powerade were to implement our recommendation.

***Break Even Analysis:*** In this section we will calculate the time it takes for Powerade to earn back the costs associated with our recommendation. Our break even analysis resulted in a break even timing of 3 months. The calculations are broken down in the appendix.


# Appendix

## *SPSS Output*

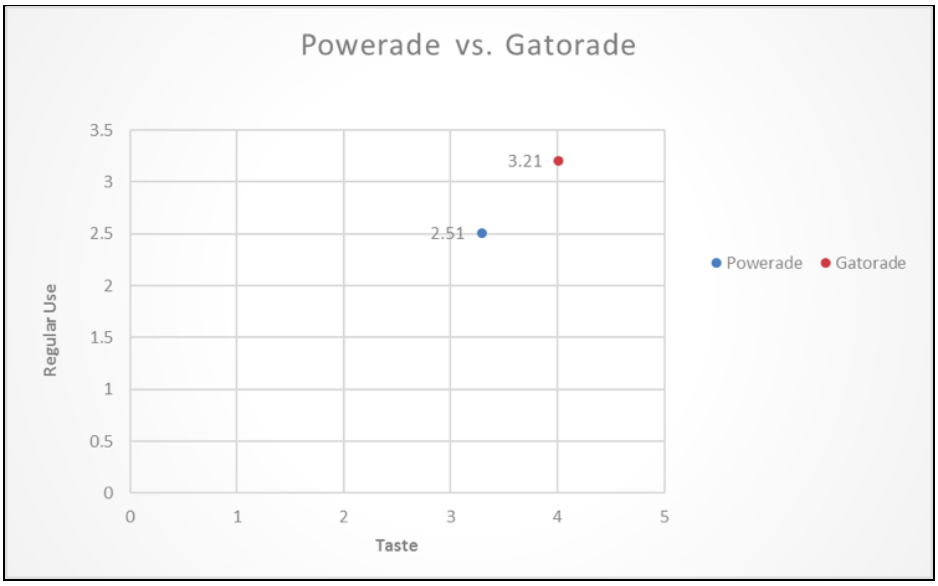
**A.**

| Count of RespNumber | FAILGatoradeHA | | |
|---|---|---|---|
| FAILPoweradeHA | 0 | 1 | Grand Total |
| 0 | 743 | 15 | 758 |
| 1 | 18 | 64 | 82 |
| **Grand Total** | **761** | **79** | **840** |

**B.**

| Values | Total |
|---|---|
| Count of RespNumber | 743 |
| Average of IncomeThousandCode | 56.1 |
| Average of AgeCode | 34.5 |
| Average of WhiteCode | 77% |
| Average of CompCollegeCode | 47% |
| Average of FemaleCode | 43% |
| Average of MarriedCode | 36% |
| Average of ChildrenCode | 32% |

**C. Taste**



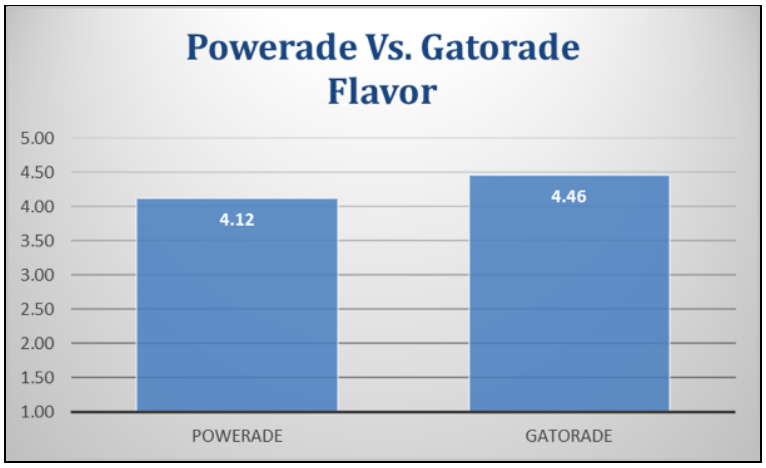

**Paired Samples Statistics**

| | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Pair 1 | TastePowerade | 3.30 | 655 | .990 | .039 |
| | TasteGatorade | 3.85 | 655 | .941 | .037 |

**Paired Samples Test**

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|---|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference Lower | Upper | | | |
| Pair 1 | TastePowerade - TasteGatorade | -.553 | 1.408 | .055 | -.661 | -.445 | -10.048 | 654 | .000 |

## D. Flavors




**Paired Samples Statistics**

| | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Pair 1 | FlavorsPowerade | 4.12 | 673 | .783 | .030 |
| | FlavorsGatorade | 4.43 | 673 | .729 | .028 |

**Paired Samples Test**

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|---|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference Lower | Upper | | | |
| Pair 1 | FlavorsPowerade - FlavorsGatorade | -.303 | .809 | .031 | -.364 | -.242 | -9.716 | 672 | .000 |

## E. Use

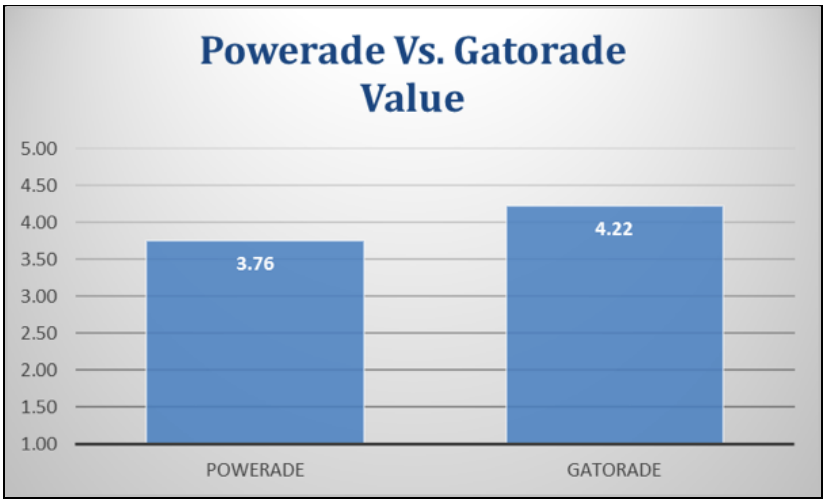
**Paired Samples Statistics**

| | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Pair 1 | UsePowerade | 2.50 | 706 | 1.307 | .049 |
| | UseGatorade | 3.17 | 706 | 1.312 | .049 |

**Paired Samples Test**

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|---|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference Lower | Upper | | | |
| Pair 1 | UsePowerade - UseGatorade | -.667 | 1.311 | .049 | -.764 | -.570 | -13.526 | 705 | .000 |

## F. Value



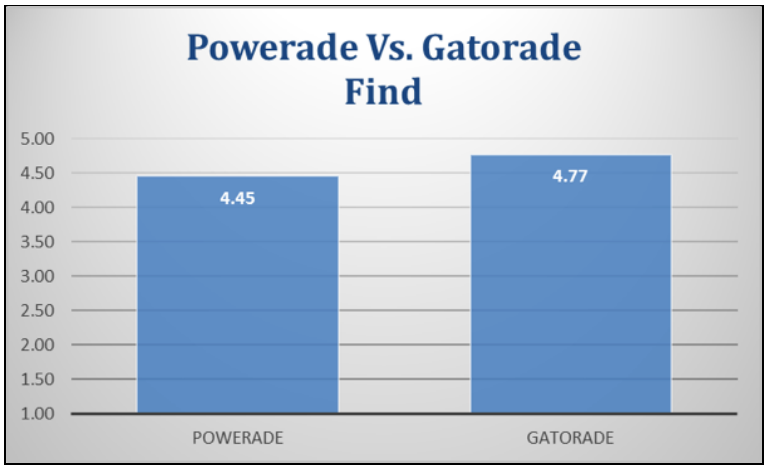

**Paired Samples Statistics**

| | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Pair 1 | ValuePowerade | 3.77 | 653 | .889 | .035 |
| | ValueGatorade | 3.79 | 653 | .906 | .035 |

**Paired Samples Test**

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|---|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference Lower | Upper | | | |
| Pair 1 | ValuePowerade - ValueGatorade | -.017 | .895 | .035 | -.086 | .052 | -.481 | 652 | .631 |

## G. Find



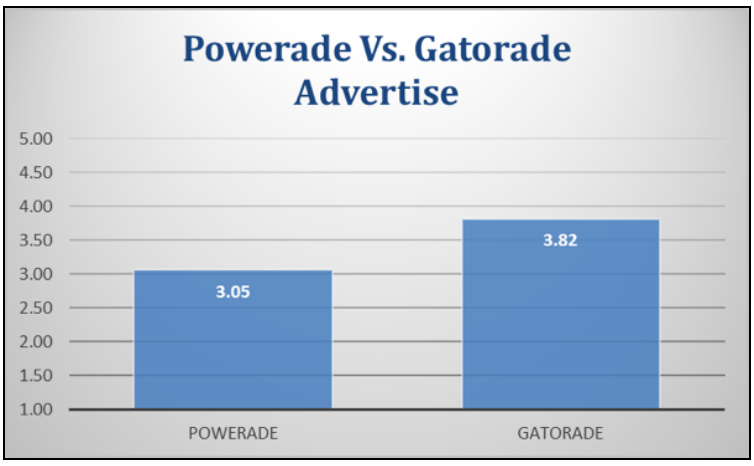

**Paired Samples Statistics**

| | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Pair 1 | FindPowerade | 4.46 | 679 | .702 | .027 |
| | FindGatorade | 4.72 | 679 | .572 | .022 |

**Paired Samples Test**

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|---|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference Lower | Upper | | | |
| Pair 1 | FindPowerade - FindGatorade | -.262 | .701 | .027 | -.315 | -.209 | -9.742 | 678 | .000 |

## H. Advertise



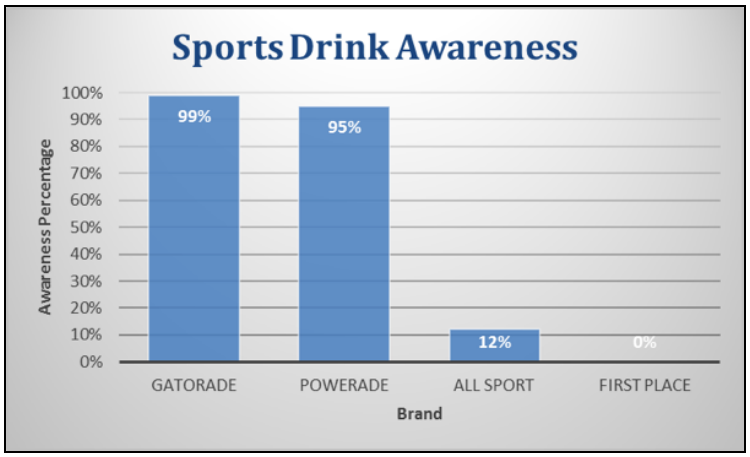
**Paired Samples Statistics**

| | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Pair 1 | AdvertisePowerade | 3.06 | 681 | 1.244 | .048 |
| | AdvertiseGatorade | 4.24 | 681 | .940 | .036 |

**Paired Samples Test**

| | | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|---|
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference Lower | Upper | | | |
| Pair 1 | AdvertisePowerade - AdvertiseGatorade | -1.179 | 1.278 | .049 | -1.275 | -1.083 | -24.083 | 680 | .000 |

## I. Awareness:




## J. Powerade Attributes: Triers vs. Non-Trier

**Group Statistics**

| | TrierP30Powerade | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| RestorePowerade | 1 | 317 | 3.77 | .779 | .044 |
| | 0 | 322 | 3.17 | .960 | .053 |
| QuenchesPowerade | 1 | 317 | 4.26 | .616 | .035 |
| | 0 | 349 | 3.73 | .971 | .052 |
| FindPowerade | 1 | 318 | 4.57 | .610 | .034 |
| | 0 | 364 | 4.36 | .764 | .040 |
| FlavorsPowerade | 1 | 314 | 4.23 | .741 | .042 |
| | 0 | 356 | 4.03 | .808 | .043 |
| ValuePowerade | 1 | 317 | 4.05 | .792 | .044 |
| | 0 | 343 | 3.49 | .920 | .050 |
| AthletePowerade | 1 | 311 | 2.89 | 1.037 | .059 |
| | 0 | 340 | 2.28 | .956 | .052 |
| ImprovePowerade | 1 | 310 | 3.21 | 1.017 | .058 |
| | 0 | 333 | 2.53 | 1.001 | .055 |
| TastePowerade | 1 | 318 | 3.70 | .917 | .051 |
| | 0 | 341 | 2.93 | .913 | .049 |
| UsePowerade | 1 | 319 | 3.50 | 1.141 | .064 |
| | 0 | 388 | 1.71 | .810 | .041 |
| NotTriedPowerade | 1 | 320 | 1.21 | .671 | .038 |
| | 0 | 403 | 1.93 | 1.433 | .071 |
| FriendsPowerade | 1 | 301 | 3.62 | .988 | .057 |
| | 0 | 348 | 3.01 | 1.121 | .060 |
| AdvertisePowerade | 1 | 316 | 3.30 | 1.156 | .065 |
| | 0 | 372 | 2.83 | 1.282 | .066 |
| EndorsePowerade | 1 | 274 | 3.08 | .990 | .060 |
| | 0 | 298 | 2.78 | 1.072 | .062 |
| HeartAttackPowerade | 1 | 323 | 1.00 | .000[a] | .000 |
| | 0 | 411 | 1.00 | .000[a] | .000 |
| SeriousPowerade | 1 | 317 | 1.85 | .870 | .049 |
| | 0 | 365 | 1.76 | .834 | .044 |

a. t cannot be computed because the standard deviations of both groups are 0.


**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| RestorePowerade | Equal variances assumed | 11.046 | .001 | 8.700 | 637 | .000 | .602 | .069 | .466 | .738 |
| | Equal variances not assumed | | | 8.715 | 614.692 | .000 | .602 | .069 | .466 | .738 |
| QuenchesPowerade | Equal variances assumed | 31.733 | .000 | 8.340 | 664 | .000 | .531 | .064 | .406 | .657 |
| | Equal variances not assumed | | | 8.513 | 595.611 | .000 | .531 | .062 | .409 | .654 |
| FindPowerade | Equal variances assumed | 12.175 | .001 | 3.802 | 680 | .000 | .203 | .053 | .098 | .308 |
| | Equal variances not assumed | | | 3.860 | 674.686 | .000 | .203 | .053 | .100 | .307 |
| FlavorsPowerade | Equal variances assumed | .897 | .344 | 3.303 | 668 | .001 | .199 | .060 | .081 | .317 |
| | Equal variances not assumed | | | 3.321 | 666.932 | .001 | .199 | .060 | .081 | .316 |
| ValuePowerade | Equal variances assumed | 27.278 | .000 | 8.405 | 658 | .000 | .564 | .067 | .432 | .696 |
| | Equal variances not assumed | | | 8.455 | 654.678 | .000 | .564 | .067 | .433 | .695 |
| AthletePowerade | Equal variances assumed | .226 | .634 | 7.823 | 649 | .000 | .611 | .078 | .458 | .764 |
| | Equal variances not assumed | | | 7.795 | 630.906 | .000 | .611 | .078 | .457 | .765 |
| ImprovePowerade | Equal variances assumed | 1.078 | .300 | 8.481 | 641 | .000 | .675 | .080 | .519 | .831 |
| | Equal variances not assumed | | | 8.476 | 636.196 | .000 | .675 | .080 | .519 | .832 |
| TastePowerade | Equal variances assumed | 6.351 | .012 | 10.862 | 657 | .000 | .775 | .071 | .635 | .915 |
| | Equal variances not assumed | | | 10.860 | 653.338 | .000 | .775 | .071 | .635 | .915 |
| UsePowerade | Equal variances assumed | 63.004 | .000 | 24.260 | 705 | .000 | 1.784 | .074 | 1.640 | 1.928 |
| | Equal variances not assumed | | | 23.489 | 557.410 | .000 | 1.784 | .076 | 1.635 | 1.933 |
| NotTriedPowerade | Equal variances assumed | 177.115 | .000 | -8.302 | 721 | .000 | -.721 | .087 | -.891 | -.550 |
| | Equal variances not assumed | | | -8.937 | 597.244 | .000 | -.721 | .081 | -.879 | -.562 |
| FriendsPowerade | Equal variances assumed | 6.041 | .014 | 7.409 | 647 | .000 | .619 | .084 | .455 | .783 |
| | Equal variances not assumed | | | 7.477 | 646.776 | .000 | .619 | .083 | .456 | .781 |
| AdvertisePowerade | Equal variances assumed | 7.292 | .007 | 5.017 | 686 | .000 | .470 | .094 | .286 | .655 |
| | Equal variances not assumed | | | 5.060 | 683.548 | .000 | .470 | .093 | .288 | .653 |
| EndorsePowerade | Equal variances assumed | 3.649 | .057 | 3.447 | 570 | .001 | .298 | .086 | .128 | .468 |
| | Equal variances not assumed | | | 3.458 | 569.990 | .001 | .298 | .086 | .129 | .467 |
| SeriousPowerade | Equal variances assumed | .011 | .917 | 1.511 | 680 | .131 | .099 | .065 | -.030 | .227 |
| | Equal variances not assumed | | | 1.506 | 657.872 | .132 | .099 | .066 | -.030 | .227 |


## K. Gatorade Attributes: Triers vs. Non-Triers

**Group Statistics**

| | TrierP30Gatorade | N | Mean | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| RestoreGatorade | 1 | 487 | 3.80 | .905 | .041 |
| | 0 | 209 | 3.18 | 1.080 | .075 |
| QuenchesGatorade | 1 | 487 | 4.33 | .654 | .030 |
| | 0 | 227 | 3.76 | 1.008 | .067 |
| FindGatorade | 1 | 485 | 4.77 | .495 | .022 |
| | 0 | 233 | 4.62 | .678 | .044 |
| FlavorsGatorade | 1 | 490 | 4.51 | .671 | .030 |
| | 0 | 236 | 4.24 | .786 | .051 |
| ValueGatorade | 1 | 483 | 3.94 | .839 | .038 |
| | 0 | 224 | 3.45 | .955 | .064 |
| AthleteGatorade | 1 | 474 | 2.89 | 1.129 | .052 |
| | 0 | 210 | 2.37 | 1.010 | .070 |
| ImproveGatorade | 1 | 473 | 3.07 | 1.103 | .051 |
| | 0 | 212 | 2.56 | 1.063 | .073 |
| TasteGatorade | 1 | 473 | 4.06 | .852 | .039 |
| | 0 | 216 | 3.41 | .989 | .067 |
| UseGatorade | 1 | 489 | 3.77 | 1.026 | .046 |
| | 0 | 240 | 1.94 | .953 | .062 |
| NotTriedGatorade | 1 | 488 | 1.13 | .524 | .024 |
| | 0 | 244 | 1.54 | 1.067 | .068 |
| FriendsGatorade | 1 | 467 | 4.05 | .787 | .036 |
| | 0 | 213 | 3.46 | 1.134 | .078 |
| AdvertiseGatorade | 1 | 483 | 4.35 | .829 | .038 |
| | 0 | 234 | 4.00 | 1.090 | .071 |
| EndorseGatorade | 1 | 452 | 3.63 | 1.058 | .050 |
| | 0 | 203 | 3.27 | 1.178 | .083 |
| HeartAttackGatorade | 1 | 493 | 1.00 | .000[a] | .000 |
| | 0 | 248 | 1.00 | .000[a] | .000 |
| SeriousGatorade | 1 | 482 | 1.77 | .946 | .043 |
| | 0 | 226 | 1.75 | .791 | .053 |

a. t cannot be computed because the standard deviations of both groups are 0.


**Independent Samples Test**

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | 95% Confidence Interval of the Difference | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper |
| RestoreGatorade | Equal variances assumed | 14.225 | .000 | 7.901 | 694 | .000 | .628 | .079 | .472 | .784 |
| | Equal variances not assumed | | | 7.369 | 339.298 | .000 | .628 | .085 | .460 | .796 |
| QuenchesGatorade | Equal variances assumed | 24.101 | .000 | 9.123 | 712 | .000 | .575 | .063 | .451 | .699 |
| | Equal variances not assumed | | | 7.856 | 317.792 | .000 | .575 | .073 | .431 | .719 |
| FindGatorade | Equal variances assumed | 28.913 | .000 | 3.235 | 716 | .001 | .145 | .045 | .057 | .233 |
| | Equal variances not assumed | | | 2.905 | 354.825 | .004 | .145 | .050 | .047 | .243 |
| FlavorsGatorade | Equal variances assumed | 2.179 | .140 | 4.735 | 724 | .000 | .267 | .056 | .156 | .377 |
| | Equal variances not assumed | | | 4.482 | 405.116 | .000 | .267 | .059 | .150 | .384 |
| ValueGatorade | Equal variances assumed | 21.878 | .000 | 7.016 | 705 | .000 | .498 | .071 | .358 | .637 |
| | Equal variances not assumed | | | 6.693 | 388.319 | .000 | .498 | .074 | .351 | .644 |
| AthleteGatorade | Equal variances assumed | .146 | .703 | 5.770 | 682 | .000 | .523 | .091 | .345 | .701 |
| | Equal variances not assumed | | | 6.023 | 444.395 | .000 | .523 | .087 | .352 | .694 |
| ImproveGatorade | Equal variances assumed | .980 | .322 | 5.639 | 683 | .000 | .508 | .090 | .331 | .685 |
| | Equal variances not assumed | | | 5.721 | 420.387 | .000 | .508 | .089 | .334 | .683 |
| TasteGatorade | Equal variances assumed | 15.068 | .000 | 8.786 | 687 | .000 | .647 | .074 | .503 | .792 |
| | Equal variances not assumed | | | 8.312 | 366.115 | .000 | .647 | .078 | .494 | .800 |
| UseGatorade | Equal variances assumed | 6.138 | .013 | 23.101 | 727 | .000 | 1.825 | .079 | 1.670 | 1.980 |
| | Equal variances not assumed | | | 23.686 | 507.529 | .000 | 1.825 | .077 | 1.674 | 1.977 |
| NotTriedGatorade | Equal variances assumed | 128.490 | .000 | -6.973 | 730 | .000 | -.410 | .059 | -.525 | -.294 |
| | Equal variances not assumed | | | -5.669 | 302.904 | .000 | -.410 | .072 | -.552 | -.268 |
| FriendsGatorade | Equal variances assumed | 77.957 | .000 | 7.862 | 678 | .000 | .592 | .075 | .444 | .739 |
| | Equal variances not assumed | | | 6.893 | 308.640 | .000 | .592 | .086 | .423 | .761 |
| AdvertiseGatorade | Equal variances assumed | 4.173 | .041 | 4.675 | 715 | .000 | .344 | .073 | .199 | .488 |
| | Equal variances not assumed | | | 4.260 | 367.967 | .000 | .344 | .081 | .185 | .502 |
| EndorseGatorade | Equal variances assumed | 2.469 | .117 | 3.881 | 653 | .000 | .360 | .093 | .178 | .542 |
| | Equal variances not assumed | | | 3.727 | 354.309 | .000 | .360 | .096 | .170 | .549 |
| SeriousGatorade | Equal variances assumed | 3.790 | .052 | .331 | 706 | .741 | .024 | .073 | -.118 | .166 |
| | Equal variances not assumed | | | .353 | 519.331 | .724 | .024 | .068 | -.110 | .158 |

## *Calculations*

### L. Labor Costs

$40K per year * 50 PowerTrainers
**=$2M total cost for PowerTrainers per year**

500 Poweraders (Ambassador) → 10 Poweraders in each of the 50 Major US cities
Compensated $12/hr (Average salary of ambassador via Glassdoor)
Yearly program ran at 52 weeks per year

Avg 12 hrs a week * 52 week/year
**= 624 hrs per year per Powerader**

500 ambassadors * 624 hrs per year per each Powerader
**= 312,000 total hours / per year**

312,000 total hours * $12 cost per hour
**= $3.74 mil = $4.0 mil total cost for Powerader per year**

### M. Sample Bottles and Promotional Merchandise COsts

*Bottles*:

Distributing 1,000,000 bottles of Powerade per year
Assume COGS = $1 dollar per bottle
**= $1.0M total cost for handing out 1 mil bottles per year**
*Merchandise:*
250 pairs of Poweraders * 50 items per event
**= 12,500 items per pair**
2 events per week * 12,500 items per pair
**= 25,000 items per week**
25,000 items per week * 52 weeks in a year
**= 1.3 M items per year**
1.3M items per year / 4 different merchandise items
**= 325,000 of each item**
wristbands: 325,000 wristbands * $0.15 = $48,750
sunglasses: 325,000 sunglasses * $3 = $975,000
t-shirts: 325,000 t-shirts * $4 = $1,300,000


lanyards: 325,000 lanyards * $0.20 = $65,000

Total cost: $2,388,750 = **$2.4 M**

**N. Company Costs**

1 Kia Niro = $23.0K per car
Avg cost of Insurance = $2.0K per year (via ValuePenguin)
Avg cost of Gas = $605 (via NerdWallet)
Avg cost of Registration fees, Taxes, Misc. = $244 via (NerdWallet)
Avg cost of Maintenance = 12,000 per year (via NerdWallet)
**$15.0K per car after first year + $23.0K per car**
**= $38,045 per car first year**
5 Kia Niros * 50 cities
**= 250 Kia Niros**
250 Kia Niros * $38,045 cost per car
**= $7.6M Total Cost First Year**

**O. Total Costs**

$2.0M (total cost for PowerTrainer per year) + $4.0M (total cost for Powerader per year) + $1.0M (total cost bottles) + $2.4M (total cost for Promotional Merchandise) + 7.6M (total cost of transportation)
**= $17.0M new marketing costs**

$17.0M (new costs) + $20M (current costs)
**= $37.0M Total Advertising Cost**

**P. Increased Sales**

37.0M (new cost of adv) / 20M (old cost of adv)

**= 85% adv increase**

.10 (AED) * .85 (adv increase)
**= 8.5% increase in revenue**

Original revenue = $1.3B per year(found in previous data)
New revenue = $1.3B * 8.5% inc
**= $0.110B increase in sales (110M)**
**= $0.110B inc + $1.3B**
**= $1.410B per year**


**Q. ROI**

Gross margin = 50% (previously calculated)
Incremental gross margin = 110M * 50% = 55M

ROI = (incr gross margin - incr cost) / incr cost
= (55M – 17M) / 17M = 2.23
**= 223% ROI**

**R. Break Even Analysis**

$1.410B yearly in sales / 12 months

**= $117M / month in sales**
17M = 1 year cost of campaign
Incremental sale increase = ($117M * .5 [margin]) = $58.5M
17M / 58.5M = .290 of a year
.125 * 365
**= approx. 106 days, so about a little over 3 months**

**S. Recruitment Letter**

Hello:

PCB Marketing Analytics is reaching out to you for a short amount of your time. Your participation is requested to help our company gather information on the awareness, consumption, satisfaction, and a few other attributes as related to sports drinks. If you do not consume sports drinks, your participation will still be helpful in gaining the insightful information we need for other attributes.

The survey should take no longer than 5-10 minutes to complete. To access the survey, the link has been provided below for your convenience!

http://louisville.az1.qualtrics.com/jfe/form/SV_7WWWkm3IgmybN3f

Thank you! We appreciation your taking the time out to complete this study in advance.

Best,
PCB Marketing Analytics

**T. Questionnaire: attached to the back of this report.**

PCB
MARKETING ANALYTICS

## U. Excel Output

| Variable | Excel Code | Description |
|---|---|---|
| Powerade triers | `=IF(C2="","",IF(C2>=1,1,0)) | If respondent answered with a value greater than or equal to one, they were coded with a one as a trier. If the respondent answered with a value less than one |
| Powerade repeaters | ` =IF(C2="","",IF(C2=0,"",IF(C2>=2,1,0))) | If a respondent answered with a value greater than or equal to 2, they were considered a Powerade repeat purchaser. |
| Powerade - Quality Check | `= IF(AQ2 <>1,1,0) | Respondents whose answers to the quality check question were coded as "0" passed the quality check, and if they were coded as "1," they failed |
| Poweade Awareness | `=IF(M2=1,1,0) | The awareness question included in the questionnaire was coded so that it could be analyzed. Raw data coded awareness as 1's and blanks, which are difficult to analyze. To fix this, we coded responses to be "0's" and "1's." |
| Powerade Past 30 Days | `=IF(Q2=1,0,IF(Q2=2,1,IF(Q2=3,4,IF(Q2=4,8,IF(Q2=5,11,IF(Q2=6,14,IF(Q2=7,17,IF(Q2=8,20,IF(Q2=9,23,IF(Q2=10,27.5,IF(Q2=11,32.5,IF(Q2=12,35,""))))))))))) | The survey had given a range of options consumers could choose from ranging from 0 bottles to more than 35 servings. If the consumer selected "1", they were coded with a "0" (Option 1 was chosen if consumer drink zero bottles), the next option "2" was coded as a "1" (Option 2 was chosen if consumer drink 1 bottle). There were 10 more options after that which contained ranges of numbers e.g. "2-6", "7-9",10-12". To code the ranges, we coded the average of the numbers. If the respondent did not select an option He/she was coded with " ". |
| Completed College | `=IF(DF2>=5,1,IF(DF2<5,0,"")) | In the survey, if the respondent responded with option "1", "2", "3", or "4", this meant they had not completed college, so these responses were coded with a zero. Options "6" and "7" meant respondent had completed 4 year degree at least, and these responses were coded with a "1". Null responses were coded " ". |
| Income in Thousands | `=IF(DG2=1,25,IF(DG2=2,38,IF(DG2=3,63,IF(DG2=4,88,IF(DG2=5,113,IF(DG2=6,138,IF(DG2=7,163,"")))))) | The survey had given a range of options consumers could choose from ranging from an income below 25,000 to an income of more than 151,000. If the consumer selected "1", they were coded with a "25" (Option 1 was chosen if consumers income was $25K or below), the next option "2" was coded as a "38", the median income (Option 2 was chosen if consumers income was within the range of $25K - $50K). There were 5 more options of income ranges after that. To code the ranges, we coded the average of the numbers. If the respondent did not select an option He/she was coded with " ". |
| Age | `=IF(DH2=1,22,IF(DH2=2,27,IF(DH2=3,32,IF(DH2=4,37,IF(DH2=5,42,IF(DH2=6,47,IF(DH2=7,52,IF(DH2=8,57,IF(DH2=9,62,""))))))))) | The survey had given a range of options consumers could choose from ranging from an age range of 20 to 24 to the range f 60 or older. If the consumer selected "1", they were coded with a "22" the median age. There were 8 more options of income ranges after that. To code the ranges, we coded the average of the numbers. If the respondent did not select an option. He/she was coded with " ". |
| Female | `=IF(DI2=2,1,IF(DI2=1,0,"")) | In the survey, if the respondent responded with option "1" (Male), he was coded with a "0". Options "2" (Female) was coded with a "1. Null responses were coded " ". |
| Children | `=IF(DJ2=1,1,IF(DJ2=2,0,"")) | In the survey, if the respondent responded with option "1" (Yes), he/she was coded with a "1", meaning the household had children under the age 18. Options "2" (No) was coded with a "0", meaning they did not have children under 18. Null responses were coded " ". |
| Married | `=IF(DK2=3,1,IF(DK2="","",0)) | In the survey, if the respondent responded with a "3"(Married), he/she was coded with a "1". If respondent chose any option other than "3"(Married), they were coded with a "0", meaning they were not married. Null responses were coded " ". |
| White | =IF(DM2=4,1,IF(DM2="","",0)) | In the survey, if the respondent responded with a "4"(White/Caucasian), he/she was coded with a "1". If respondent chose any option other than "4"(White/Caucasian), they were coded with a "0", meaning they were not White/Caucasian. Null responses were coded " ". |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