

Feasibility Study for Colas Available at Wal-Mart



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Executive Summary

The following feasibility study will determine the best cola option available at Wal-Mart for UNT students. The cola options are Coca Cola, Pepsi, Royal Crown (RC) Cola and Sam's Choice Cola. Our team evaluated the price, taste rating, caloric content, sugar content, carbonation rating, and caffeine content of each cola option. We conducted a survey of 50 UNT students to determine a taste rating for each cola option. We compared prices of a 12 pack of 12oz at Wal-Mart in Denton, TX. The nutrition facts on each can provided the comparisons for caloric content, sugar content, and caffeine content of each cola option. Our team rated the carbonation levels by tasting each cola in 15-minute intervals for one hour and scoring each cola based upon the level of carbonation. Based on the results of the study we recommend UNT students buy Coca-Cola, when shopping for cola at Wal-Mart, because Coca-Cola ranked first overall in our study.

Introduction to Feasibility Study for Colas Available at Wal-Mart

Our team conducted a feasibility study to compare the best cola option for UNT students available at Wal-Mart. Wal-Mart is the second largest food supplier in America, and therefore UNT students are likely to go to Wal-Mart to buy their cola. The following colas are available at Wal-Mart in Denton, Texas: Coca-Cola, Pepsi Cola, Royal Crown Cola, and Sam's Choice Cola. We will evaluate each of these options based upon multiple criteria that UNT students consider when purchasing cola. The criteria for our study will include the price for a 12 pack of cans, taste ratings, caloric content, sugar content, carbonation ratings, and caffeine content. The study will include results for each evaluated cola brand and the methods used to complete the evaluations. At the end of the study, our will make a recommendation for the best cola option for the students of UNT and explain the reasons for our recommendations.

Methods of Evaluation for Colas Available at Wal-Mart

Colas Available at Wal-Mart

Our team will evaluate the following colas that are available at Wal-Mart:

- Coca-Cola
- Pepsi Cola
- Royal Crown Cola
- Sam's Choice Cola

Criteria Tested for Colas Available at Wal-Mart

We will evaluate each brand of cola based upon the following criteria:

- Price per 12 pack of cans
- Taste rating
- Caloric content
- Sugar content
- Carbonation rating
- Caffeine Content

Price Evaluation for Colas Available at Wal-Mart

To evaluate the price of each option, our team went to the Wal-Mart on University Dr. in Denton, Texas to compare our choices. We chose Wal-Mart as our basis for price evaluation because it is, according to [dailyfinance.com](http://www.dailyfinance.com), the second most popular food supplier in America, right behind McDonald's. Wal-Mart also offers four different Cola choices for UNT students with a wide range of prices. We ranked the price for each cola 12 pack of 12oz cans. We consider the lowest price to be the best option and the highest price to be the worst option. Our team ranked each cola first through fourth based upon lowest price.

<http://www.dailyfinance.com/2013/05/14/americas-10-most-popular-stores>

Taste Rating Evaluation for Colas Available at Wal-Mart

To evaluate taste, we conducted a survey that ranks each different cola option on a scale of 1-5 or never tasted. Figure 1, on the next page, shows the survey our team created. On April 23, 2014 we evaluated 50 people by printing out 50 surveys and handing them out, to UNT students, at the library, to willing participants. To get the most accurate taste ratings, our survey results only included UNT students who have tasted each of the four options of cola available at Wal-Mart. When compiling the results from our 50 surveys, we discarded any surveys that had the option "Never tasted before" circled for any of the four choices of cola. We received 40 surveys from participants who had tasted and rated all four cola options. Our team computed the average for each cola. We ranked each cola option first through fourth based upon the highest taste rating average.

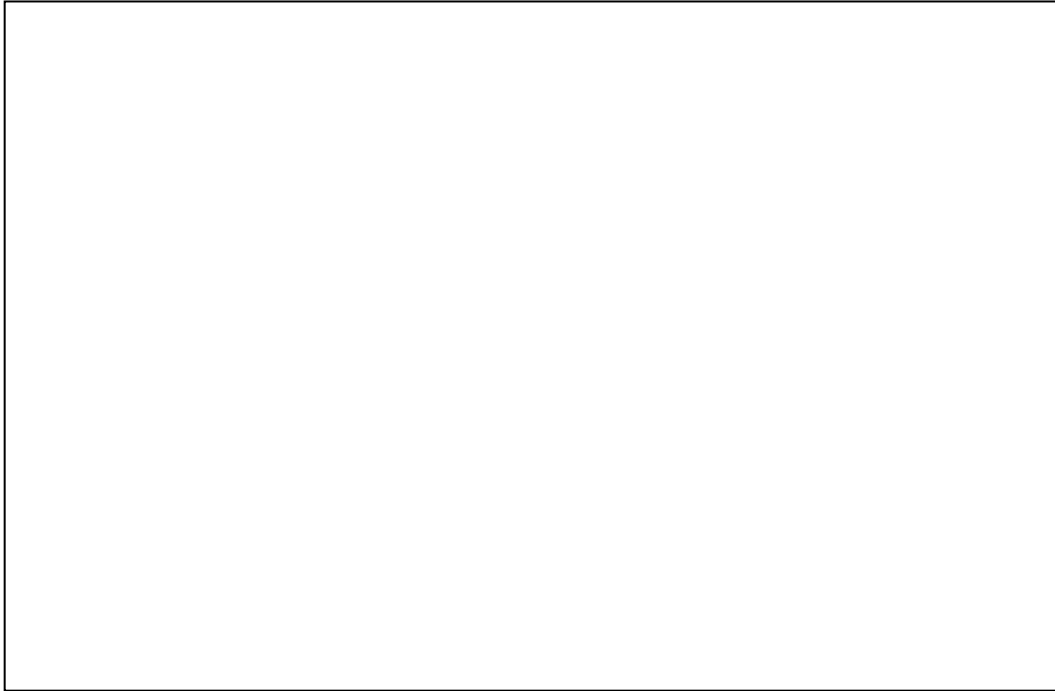


Figure 1 – Our team used this survey to evaluate the taste ratings of each cola option.

[Caloric Content Evaluation for Colas Available at Wal-Mart](#)

The FDA requires that food companies report accurate nutrition fact information on their products. Our team collected data for the caloric content in our four colas based on the nutrition labels found on each can. We recorded the calorie content in the amount found in 12 ounces, a standard sized can. We ranked the colas first being the lowest in calories and fourth being the highest due to the average UNT student's interest in finding lower calorie sodas.

[Sugar Content Evaluation for Colas Available at Wal-Mart](#)

Our team also collected data for the sugar content in our four colas based on the nutrition labels found on each can. We recorded the sugar content in the amount found in 12 ounces, a standard sized can. We ranked the colas first through fourth with the lowest sugar content first.

[Carbonation Rating Evaluation for Colas Available at Wal-Mart](#)

Most UNT students drink a 12oz can of cola within one hour of opening the can. On April 25, 2014, our team conducted an experiment to evaluate how quickly each option of cola goes flat. To evaluate how quickly each cola option goes flat, our team drank each cola and rated the carbonation levels of each cola during 15 minute intervals. First, we had one member of our team, Doug, make five separate groups of cola. Each group contained one can of Coca-Cola, Pepsi Cola, Royal Crown Cola, and Sam's Choice Cola. Doug set a timer and opened each group in 15 minute intervals, until the first group of cola had been opened 60 minutes ago, the second 45 minutes prior, the third 30 minutes prior, the fourth 15 minutes prior, and the fifth group opened at the "0" minute mark. Next, Doug had the other three group members, Lindsay, Tyler, and Osias blind test each

of the cola's and rate them from one to ten. A score of ten being the most carbonated, and a score of one being the least carbonated. Lindsay, Tyler, and Osias recorded their results, and Doug matched the results with the time group they belonged in. Our team computed the average carbonation rating for each cola using the composite scores for each cola option during the entire time limit. We then ranked the cola options with first being the highest average, or most sustained carbonation, and fourth being the lowest average.

[Caffeine Content Evaluation for Colas Available at Wal-Mart](#)

Our team also collected data for the caffeine content in our four colas based on the nutrition labels found on each can. We recorded the caffeine content in the amount found in 12 ounces, a standard sized can. We decided that most UNT students prefer more caffeine in their colas, so we ranked the colas first through fourth with the highest caffeine content first.

Results of the Evaluation for Coca-Cola

Our team evaluated Coca-Cola based on price, taste rating, caloric content, sugar content, carbonation rating, and caffeine content. Table 1, located below, shows the results of our evaluation for Coca-Cola.

Price Results for Coca-Cola

On April 21, 2014, our team purchased a 12 pack of 12oz cans at the University Dr. Wal-Mart in Denton, Texas. A 12 pack of Coca-Cola cost \$4.28.

Taste Rating Results for Coca-Cola

On April 23, 2014 our team surveyed UNT students at the library to evaluate taste ratings for each cola option. Coca-Cola's average taste score was a 3.67 on a scale of one to five, with five being the best.

Caloric Content Results for Coca-Cola

According to Coca-Cola's nutrition facts, one 12oz can of Coca-Cola contains 140 calories.

Sugar Content Results for Coca-Cola

According to Coca-Cola's nutrition facts, one 12oz can of Coca-Cola contains 39 grams of sugar.

Carbonation Rating Results for Coca-Cola

On April 25, 2014 our team rated the carbonation levels of Coca-Cola on a scale of one to ten, with ten being the best. Coca-Cola's average carbonation score was a 7.07 over a one hour time period.

Caffeine Content Results for Coca-Cola

According to Coca-Cola's nutrition facts, one 12oz can of Coca-Cola contains 34 milligrams of caffeine.

Scores and Rankings for Coca-Cola

Coca-Cola	Price	Taste	Calories	Sugar	Carbonation	Caffeine
Scores	\$4.28	3.67	140	39g	7.07	34mg
Rankings	T-3rd	1st	1st	1st	1st	3rd

Table 1 indicates the results of the evaluation for Coca-Cola

Results of the Evaluation for Pepsi Cola

Our team evaluated Pepsi Cola based on price, taste rating, caloric content, sugar content, carbonation rating, and caffeine content. Table 2, located below, shows the results of our evaluation for Pepsi Cola.

Price Results for Pepsi Cola

On April 21, 2014, our team purchased a 12 pack of 12oz cans at the University Dr. Wal-Mart in Denton, Texas. A 12 pack of Pepsi Cola cost \$4.28.

Taste Rating Results for Pepsi Cola

On April 23, 2014 our team surveyed UNT students at the library to evaluate taste ratings for each cola option. Pepsi Cola's average taste score was a 3.00 on a scale of one to five, with five being the best.

Caloric Content Results for Pepsi Cola

According to Pepsi Cola's nutrition facts, one 12oz can of Pepsi Cola contains 150 calories.

Sugar Content Results for Pepsi Cola

According to Pepsi Cola's nutrition facts, one 12oz can of Pepsi Cola contains 41 grams of sugar.

Carbonation Rating Results for Pepsi Cola

On April 25, 2014 our team rated the carbonation levels of Pepsi Cola on a scale of one to ten, with ten being the best. Pepsi Cola's average carbonation score was a 6.73 over a one hour time period.

Caffeine Content Results for Pepsi Cola

According to Pepsi Cola's nutrition facts, one 12oz can of Pepsi Cola contains 38 milligrams of caffeine.

Scores and Rankings for Pepsi Cola

Pepsi Cola	Price	Taste	Calories	Sugar	Carbonation	Caffeine
Scores	\$4.28	3.00	150	41g	6.73	38mg
Ranking	T-3rd	2nd	T-2nd	T-2nd	2nd	2nd

Table 2 indicates the results of the evaluation for Pepsi Cola

Results of the Evaluation for Royal Crown Cola

Our team evaluated Royal Crown (RC) Cola based on price, taste rating, caloric content, sugar content, carbonation rating, and caffeine content. Table 3, located below, shows the results of our evaluation for Royal Crown Cola.

Price Results for Royal Crown Cola

On April 21, 2014, our team purchased a 12 pack of 12oz cans at the University Dr. Wal-Mart in Denton, Texas. A 12 pack of Royal Crown Cola cost \$3.00.

Taste Rating Results for Royal Crown Cola

On April 23, 2014 our team surveyed UNT students at the library to evaluate taste ratings for each cola option. Roy Crown Cola's average taste score was a 2.27 on a scale of one to five, with five being the best.

Caloric Content Results for Royal Crown Cola

According to Royal Crown Cola's nutrition facts, one 12oz can of RC Cola contains 160 calories.

Sugar Content Results for Royal Crown Cola

According to Royal Crown Cola's nutrition facts, one 12oz can of RC Cola contains 42 grams of sugar.

Carbonation Rating Results for Royal Crown Cola

On April 25, 2014 our team rated the carbonation levels of Royal Crown Cola on a scale of one to ten, with ten being the best. Royal Crown Cola's average carbonation score was a 5.93 over a one hour time period.

Caffeine Content Results for Royal Crown Cola

According to Royal Crown Cola's nutrition facts, one 12oz can of RC Cola contains 43 milligrams of caffeine.

Scores and Rankings for Royal Crown Cola

RC Cola	Price	Taste	Calories	Sugar	Carbonation	Caffeine
Scores	\$3.00	2.27	160	42g	5.93	43mg
Ranking	2 nd	3 rd	4 th	4 th	3 rd	1 st

Table 3 indicates the results of the evaluation for RC Cola

Results of the Evaluation for Sam's Choice Cola

Our team evaluated Sam's Choice Cola based on price, taste rating, caloric content, sugar content, carbonation rating, and caffeine content. Table 4, located below, shows the results of our evaluation for Sam's Choice Cola.

Price Results for Sam's Choice Cola

On April 21, 2014, our team purchased a 12 pack of 12oz cans at the University Dr. Wal-Mart in Denton, Texas. A 12 pack of Sam's Choice Cola cost \$2.68.

Taste Rating Results for Sam's Choice Cola

On April 23, 2014 our team surveyed UNT students at the library to evaluate taste ratings for each cola option. Sam's Choice Cola's average taste score was a 1.70 on a scale of one to five, with five being the best.

Caloric Content Results for Sam's Choice Cola

According to Sam's Choice Cola's nutrition facts, one 12oz can of Sam's Cola contains 150 calories.

Sugar Content Results for Sam's Choice Cola

According to Sam's Choice Cola's nutrition facts, one 12oz can of Sam's Cola contains 41 grams of sugar.

Carbonation Rating Results for Sam's Choice Cola

On April 25, 2014 our team rated the carbonation levels of Sam's Choice Cola on a scale of one to ten, with ten being the best. Sam's Choice Cola's average carbonation score was a 4.60 over a one hour time period.

Caffeine Content Results for Sam's Choice Cola

According to Sam's Choice Cola's nutrition facts, one 12oz can of Sam's Cola contains 13 milligrams of caffeine.

Scores and Rankings for Sam's Choice Cola

Sam's Cola	Price	Taste	Calories	Sugar	Carbonation	Caffeine
Scores	\$2.68	1.70	150	41g	4.60	13mg
Ranking	1 st	4 th	T-2 nd	T-2 nd	4 th	4 th

Table 4 indicates the results of the evaluation for Sam's Choice Cola

Conclusion to Feasibility Study for Colas Available at Wal-Mart

The results of our feasibility study for colas available at Wal-Mart allowed us to rank each cola based upon price, taste rating, caloric content, sugar content, carbonation rating, and caffeine content. Table 5, located below, shows the ranking results for each cola option in each tested criteria. Each of our criteria are equally weighted in the calculation of overall ranking because we found each criteria equally important to UNT students purchasing cola. Coca-Cola's ranked first place in the most categories and had the lowest average ranking with a score of 1.67. Pepsi Cola ranked second place overall with an average ranking of 2.17. Royal Crown Cola ranked third place overall with an average ranking of 2.50. Sam's Cola ranked fourth place overall with an average ranking of 2.83.

Rankings for Colas Available at Wal-Mart

Cola Brand	Coca-Cola	Pepsi Cola	RC Cola	Sam's Cola
Price	T-3 rd	T-3 rd	2 nd	1 st
Taste	1 st	2 nd	3 rd	4 th
Calories	1 st	T-2 nd	3 rd	T-2 nd
Sugar	1 st	T-2 nd	3 rd	T-2 nd
Carbonation	1 st	2 nd	3 rd	4 th
Caffeine	3 rd	2 nd	1 st	4 th
Average Ranking	1.67	2.17	2.50	2.83

Table 5 indicates the results for each brand of cola available at Wal-Mart for each method of evaluation

Recommendation for Colas Available at Wal-Mart

Coca-Cola ranked first place in four out of six of our criteria. Coca-Cola ranked first in taste, calories, sugar content, and carbonation retention. Coca-Cola ranked third in both price and caffeine content. Coca-Cola's average ranking of 1.67 was the lowest of all four cola options. Because Coca-Cola has the best ranking, we recommend UNT students choose Coca-Cola when purchasing cola at Wal-Mart. Despite Coca-Cola's high price, this study shows it's superior to Royal Crown Cola, Pepsi Cola, and Sam's Choice Cola.