

Project 2 Report

MKTG 4450: Market Research

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Abstract:

This study explores how celebrity endorsements and edgy text affect consumer perceptions of Liquid Death. Using a 2x2 experimental design, we tested ads featuring Post Malone and provocative language. Results showed the highest coolness ratings came from the simplest ad, without a celebrity or bold text. Both Post Malone and edgy language slightly reduced perceived coolness, especially among existing customers. Findings suggest that simple, authentic ads may outperform flashier ones, and ad strategies should be tailored to different audience segments.

Introduction:

Research Purpose

Liquid Death is a beverage brand known for its unconventional and edgy marketing. We would like to refine its advertising strategy by testing different elements in its ad campaigns. Specifically, this research will test the impact of featuring a celebrity endorsement (Post Malone) and incorporating an evocative statement in advertisements on consumer perceptions. By conducting a structured experiment, we aim to determine whether these marketing tactics enhance brand engagement and positively influence consumer behavior.

Problem Context

Liquid Death has positioned itself as a rebellious and unconventional water brand, using humor, bold visuals, and non-traditional messaging to attract attention in a competitive market. The company primarily sells canned water, differentiating itself through unique branding rather than product innovation. The brand has built a strong following among younger audiences who resonate with its anti-corporate stance and humorous tone. Given its current success, Liquid Death wants to explore new ways to push the boundaries of its advertising. Celebrity endorsements are a common tactic used to enhance brand credibility and awareness, while provocative text can create stronger emotional reactions. However, no research has been conducted to analyze how these elements interact in Liquid Death's marketing. Understanding the effects of these variables on brand perception will help the company make informed marketing decisions that align with its brand identity while maximizing ad effectiveness.

Research Objective

The objective of this study is to determine how the presence of Post Malone and the use of edgy text in advertisements influence consumer perceptions of Liquid Death's brand and their likelihood of purchasing the product. Specifically, we seek to measure the independent and combined effects of these elements on purchase intent, brand appeal, and ad memorability.

Value of Information

A clear understanding of the effects of celebrity endorsements and provocative language in advertising will help Liquid Death refine its marketing approach. If the combination of these elements leads to higher purchase intent, the company can confidently invest in similar advertising strategies. If either element proves ineffective or harmful to brand perception, the company can adjust its messaging accordingly. This study will provide valuable insights that can shape Liquid Death's future marketing campaigns while minimizing the risk of ineffective ad spending. The primary costs associated with this research are time and survey deployment, but the potential benefits include increased brand engagement, higher sales, and a more strategic allocation of marketing resources.

Methods:

Experimental Design

The survey was designed to find the simple, main, and interaction effects that the independent variables (presence of cool text, and presence of Celebrity Post Malone) have on the dependent variables (perceived coolness, willingness to pay, etc...). The Qualtrics survey would randomly assign respondents one of the four ads for Liquid Death where the 2 independent variables were manipulated. Using the 2 x2 factorial test design, we could view the significance of the relationship between the independent variables through analysis of the data using the simple, main and interaction effects with T tests, ANOVAs, and linear regression analysis.

Independent Variables

This experiment will manipulate two independent variables using a 2x2 design. The first independent variable is celebrity endorsement, testing the presence of Post Malone in the advertisement versus his absence from the ad. The second independent variable is an evocative state, testing the presence of an evocative statement included in the picture versus its absence. The four conditions tested will be:

	No Text	Text
With Post Malone	Post Malone Ad	Post Malone Ad + Text
No Post Malone	Standard Ad	Standard Ad + Text



To create clear distinctions between conditions, the ads will be designed with noticeable differences in both the inclusion of Post Malone and the presence of bold, provocative language. Each ad will be structured to maintain Liquid Death's brand aesthetic as closely as possible while testing the effectiveness of these two variables both separately and combined.

Dependant Variables

The dependent variables in this study will measure consumer responses to the different variables in Liquid Death's advertisements. We will assess perceived brand appeal, brand fit, and memorability using 7-point scales, focusing Liquid Death's perception of coolness. These measures will allow us to determine whether the presence of Post Malone or an evocative statement enhances the effectiveness of Liquid Death's advertisements. Additional dependent measures such as emotional response, perceived authenticity, and likelihood of sharing the ad on social media may be collected to provide further insights. Understanding these variables through these survey questions will help Liquid Death identify which elements resonate most with its audience and contribute to stronger consumer engagement.

The dependant variables were:

- What do you think is the price of a single can of liquid death is? (Enter in X.XX format)
- What is the most that you would be willing to pay for this drink? (Enter in X.XX format)
- How cool do you think this drink is? (interval scale 1-7)

- How disappointing do you think this drink will be? (interval scale 1-7)
- How sexy do you think this drink is? (interval scale 1-7)

Covariant variables

To account for potential confounding factors, we will collect additional covariate data that may influence consumer perceptions and responses. These covariates include demographics (age, gender, income level, and location), brand familiarity (whether respondents are already aware of Liquid Death), celebrity perception (whether respondents have a positive opinion of Post Malone), and edginess preference (whether respondents enjoy brands that use dark humor or evocative messaging). By analyzing these factors, we can determine whether specific consumer segments react differently to the experimental conditions, allowing Liquid Death to tailor its marketing strategies accordingly.

The covariant variables were:

- How do you feel about Liquid Death's branding in general? (interval scale 1-7)
- How often do you have energy drinks? (interval scale 1-7)
- Does Liquid Death have caffeine?
- Have you tried Liquid Death before?
- How likely are you to drink Liquid Death in the following scenarios? (interval scale 1-7 for each scenario)
 - Music Festival
 - After a workout
 - At a house party
 - While working / studying
 - At a bar or club
 - On a road trip
 - While gaming or watching TV
 - At a restaurant instead of beer or soda
- Does a straw have one hole or two?
- When you're deciding what beverage to purchase, how much do you care about each of the following factors? (interval scale 1-7 for each factor)
 - Healthiness
 - Price
 - Tastiness
 - Thirst quenching
 - Convenience
 - Environmental Friendliness
 - How I look while drinking
- Does pineapple belong on pizza?

Hypothesis

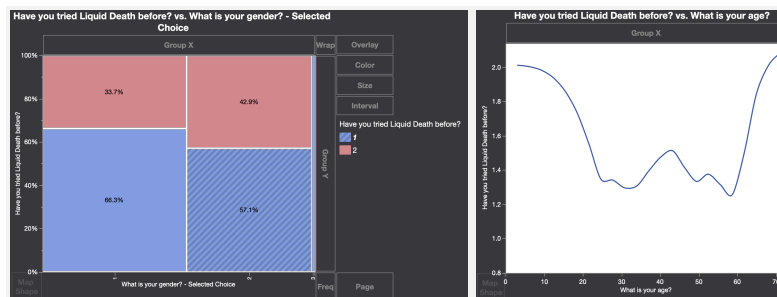
We hypothesize that ads featuring Post Malone will lead to higher brand engagement and brand appeal with Utah audiences compared to those without him. Additionally, we predict that ads containing an evocative statement will be perceived as more 'cool' and in line with Liquid Death's brand identity than those without evocative language. We also expect that the combination of Post Malone and an edgy statement will yield the highest perceived brand appeal. Furthermore, we anticipate that consumers who already have a positive perception of Post

Malone will respond more favorably to the ad variations that include him, and that individuals who prefer edgy marketing will show stronger positive reactions to ads with provocative text. Testing these hypotheses will provide valuable insights into which advertising elements are most effective for Liquid Death's target audience.

Main Results:

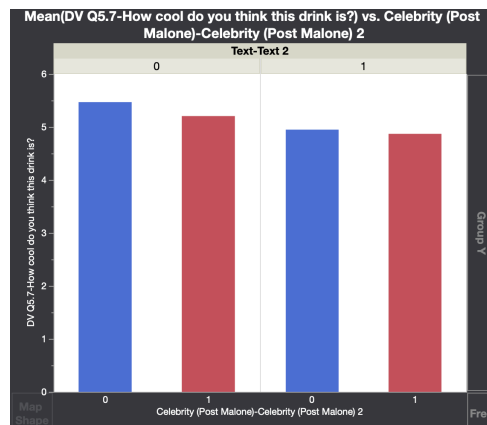
Participant summary:

The participants in our survey were pooled from Amazon Mechanical Turk (Mturk), a crowdsourcing marketplace where people get paid to take surveys. 229 completed the survey, but only 171 were included in the cleaned data set mainly because of failed attention checks. Within these 171 people, there were 89 males, 77 females, 1 non binary, and 1 person who preferred not to say.



Above, there are two graphs with the covariate of having tried liquid death or not related to the age and gender data. 66% of men have tried liquid death, compared to 57% of women who have tried the beverage. The age groups that have most tried the beverage seem to be ages 24-35, and 48-60, with both groups showing the most 'yes' answers to the questions of having tried it or not.

2x2 Figure Analysis and Hypothesis Testing:

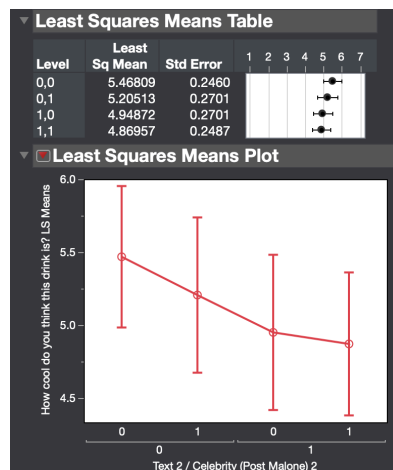


Above is our 2x2 figure, and our dependent variable of choice, which we chose because it has the most significance, is “How cool do you think this drink is?”. Just looking at the graph, we can see that the bar on the far left has the highest average rating out of 7, which is our ad with no text, and no Post Malone.

After conducting a full factorial linear regression analysis, we observed an almost marginal main effect of text being in the ad on perceived coolness ($b = 0.21$, $t(167) = 1.65$, $p = 1.007$) where ads with no text showed a slight increase in perceived coolness compared to ads with text. The main effect of having Post Malone or not was not significant ($b = 0.09$, $t(167) = 0.66$, $p = 0.51$). Our interaction effect for this was also not significant ($b = 0.05$, $t(167) = 0.35$, $p = 0.72$).

Parameter Estimates				
Term	Estimate	Std Error	t Ratio	Prob> t
Intercept	5.1228741	0.129497	39.56	<.0001*
Text-Text 2[0]	0.2137325	0.129497	1.65	0.1007
Celebrity (Post Malone)-Celebrity (Post Malone) 2[0]	0.0855274	0.129497	0.66	0.5099
Text-Text 2[0]*Celebrity (Post Malone)-Celebrity (Post Malone) 2[0]	0.045951	0.129497	0.35	0.7232

Four Key Simple Effects of Interest:



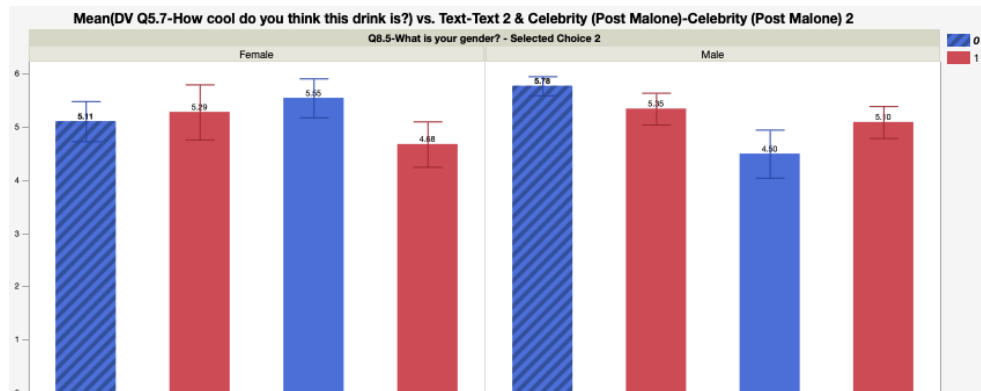
The simple effects analysis shows that adding Post Malone slightly reduced perceived coolness, both when text was absent (from 5.47 to 5.21) and present (from 4.95 to 4.87). Meanwhile, the presence of text consistently lowered coolness ratings regardless of celebrity, dropping from 5.47 to 4.95 without Post Malone and from 5.21 to 4.87 with him. Although none of these differences were statistically significant, the pattern suggests that both Post Malone and the text independently reduced the drink’s perceived coolness, with text having a stronger overall effect.

Supplementary Results:

As we reviewed additional data from our research survey, we identified four key areas that helped explain further why certain ad elements made the drink seem cooler to different groups of people. These areas included gender, parental status, brand familiarity, and geographic trends.

With the help of these factors, we were able to better understand why certain results happened, which we believe is key to improving future advertising for this brand.

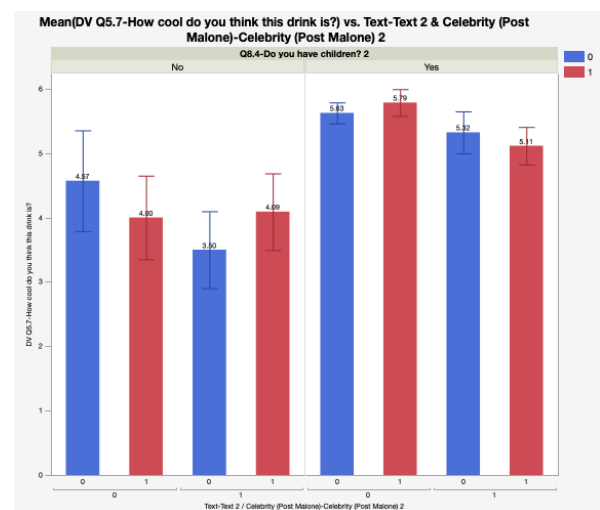
Gender Differences:



Looking deeper into preferences between males and females helped us see that there was a difference in the ads that led to them thinking Liquid Death was a cooler company. The chart above shows this split between the four different ad types shown to both genders. We found that women participants responded best to the ad with provocative text but without the celebrity, Post Malone (mean: 5.55). In contrast, male participants stated that the brand was cooler when the ad was simple—meaning no text and no celebrity included (mean: 5.78). As we reviewed this, we recognized that social ads should be tailored to the preferences that each gender tends to appreciate.

Non-Parents vs. Parents:

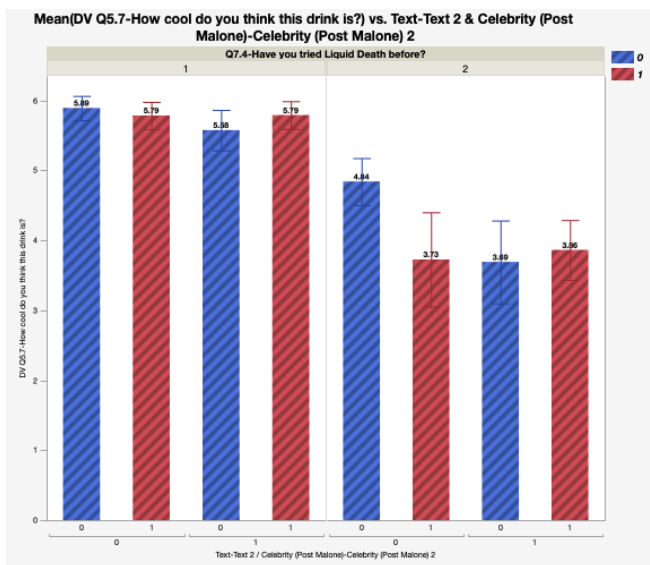
Another key area that showed differences in feedback came when comparing those with kids against those without kids. To our surprise, those with kids, regardless of the ad format they were presented with, saw the drink as cooler. You'll see that the simple effect of comparing just Post Malone left parents rating the drink at a mean of 5.8, compared to non-parents who rated it 4.0. Similarly, non-parents rated the text-only ad 3.5 (the lowest score), while parents rated it at an average of 5.3. Liquid Death should be thoughtful about parental status when deciding how edgy they should be with words and celebrity use.



Brand Familiarity Effects:

We then looked further to understand how people who have tried Liquid Death rated the coolness of the brand compared to those that had not tried it before, still observing if the ad type played any role in evoking a different response. Against what we believed when designing this survey, we found that people who have not tried Liquid Death saw the brand as cooler than those who had tried their canned water before.

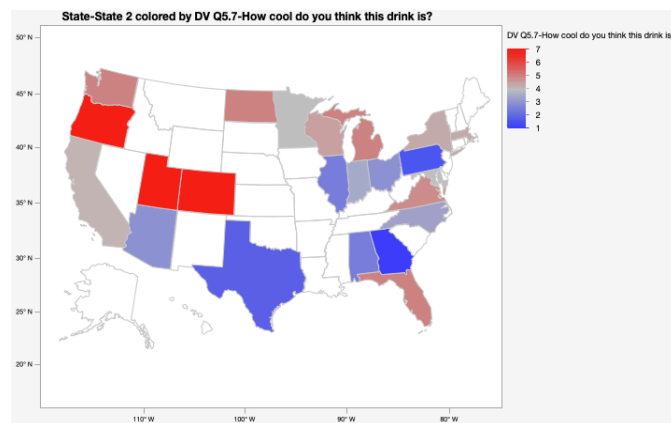
But perhaps more interesting was the insight we received by looking at the interaction of using a celebrity like Post Malone or not. The figure below shows that those who have not tried the drink



don't see any significant advantages or disadvantages to having Post Malone or a celebrity present in the ad, the ratings hover between 5.58 and 5.79 across all versions. But when advertising to those who have experienced the brand, it is important to keep Post Malone out of it, as the version without Post Malone or text scored a 4.44, while the three other ad types, especially those with Post Malone, dropped much lower (as low as 3.49). This suggests that among people familiar with the product, using a celebrity might actually hurt perceptions of brand coolness, while a simpler approach performs better.

Geographic Trends:

The last area we found interesting was the perception of this drink based on location within the United States. States like Utah, Oregon, and Colorado were among the top states that ranked Liquid Death's water highest for how cool they perceived the drink. In contrast, states like Texas, Georgia, and South Carolina had much lower ratings. When considering future advertising, the brand may want to prioritize regions like the Western U.S., where people may resonate more with the theme of this brand. In other regions, such as parts of the South or Midwest, Liquid Death may need to test new ideas for creating ads that help people see it as a fun or cool brand to associate with.



Interpretive Issues & Weaknesses:

While our study does offer meaningful insights into how language and celebrity endorsements influence perceptions of Liquid Death, there were some limitations within the study that must be acknowledged.

Internal Validity:

This experiment was conducted within a controlled online survey environment, which allowed us to isolate the effects of the manipulated variables. The issue with this is that self-reported data has some built-in problems, like people possibly misunderstanding the ads or answering the survey questions in biased ways. Although we included attention checks to improve data quality, some participants may have remained inattentive or disengaged, contributing to a variability in responses and possibly weakening the reliability of our data.

Additionally, some of our results were just slightly above the usual cutoff for being considered statistically significant, suggesting that while some of the trends were in the predicted direction, we still continued to lack the statistical power to detect strong effects. This could be due to a relatively modest sample size or small effect sizes. Due to this, we interpreted our findings with caution, and recognized that the absence of significance does not necessarily imply the absence of meaningful relationships from the data.

External Validity:

Our sample was collected via Amazon Mechanical Turk, which may not be fully representative of Liquid Death's target audience. While MTurk respondents are diverse, they may differ in key demographic traits from the brand's core consumers. Also, seeing ads in a survey isn't the same as seeing them in real life, like on social media. Because of this, people's reactions in the survey might not fully reflect how they would actually respond in everyday situations where their attention is more divided.

Other Considerations:

Furthermore, we also recognize that only two independent variables were tested. In real-world ads, things like visuals, sound, timing, and where the ad appears all work together to shape how people perceive them. These were held constant in our experiment, possibly excluding important interaction effects. Additionally, we only measured short-term responses and did not assess the durability of ad impact over time. Future research could incorporate follow-up measures to test ad recall and behavior beyond the immediate survey session.

Finally, although our dependent variables were chosen based on existing literature and industry relevance, we did not include qualitative measures that might have provided deeper insight into

why certain ads performed better than others. This could also be an area for future exploration for a later study.

Conclusion:

Our research shows that implementing celebrity endorsements and bold, edgy text can influence people's feelings toward Liquid Death. With these ad elements, we discovered that there were impacts on people's perceptions of how cool the brand was and how much they were willing to pay for the drink. Out of all the results we measured, the perception of coolness stood out as the most significant dependent variable. By manipulating these ad components, we were able to assess their individual and combined effects on consumer responses.

To begin with, and most interestingly enough, our highest average coolness rating came from the ad that included neither Post Malone nor provocative text. This outcome suggests that, for some audiences, Liquid Death's basic brand identity, that doesn't include any celebrity or bold statements, might already be strong enough to stand on its own. Additionally, it also implies that extra marketing elements like celebrities or edgy language doesn't always make ads more appealing and can sometimes distract from the core brand message.

These patterns show the importance of audience segmentation when crafting ads. Our supplementary results showed that different groups responded in many different ways to the same ad types. To give the best idea of this, parents and women found the text-only ad to be cooler, while non-parents and men preferred the simplest ad with no celebrity or edgy language. This tells us that a one-size-fits-all strategy may not be the most effective approach. Liquid Death can benefit from tailoring its ads based on who they're targeting and what message will resonate best with that specific group it is intended for.

Since some of our results were close to being statistically significant but didn't quite cross the threshold, it's possible that with a larger sample or slightly different design, we might have seen stronger patterns. That means these findings are useful but should be treated as early insights, not final answers.

In the end, this study gives Liquid Death valuable insight into how different ad features impact consumer perception. While bold tactics like edgy language and celebrity appearances are often assumed to be effective, our results suggest that simplicity and authenticity may sometimes be more impactful—especially among those already familiar with the brand. Future campaigns should use these findings to guide creative decisions, but continue testing and adjusting based on audience responses. With a data-driven approach, Liquid Death can keep building its bold brand identity while making smart, targeted choices that drive engagement and growth.