

The Numbers Game

Whitepaper presented by:

RRR

Graduate Team-9

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1. Introduction:

This white paper focuses on the twitter buzz around Super Bowl commercials – 2023. This is the Gameday Analytics Challenge at University of Utah.

The prime motive is to find the twitter numbers that played a game on advertisements. Here, the analysis will be elucidated through “RRR” mechanism.

RRR stands for Ratings, Revenue and Reach.

Ratings:

- Most Tweeted Commercials/ Top-10
- Most Tweeted Brand/ Top-10
- Most Tweeted Celebrity/ Top-5
- Most Tweeted Word/Phrase

Revenue:

- Cost of Tweet per Commercial-Costliest/Cheapest
- Industry Spend Analysis

Reach:

- Brands Performance across Quarters
- Sentimental Analysis – Quality of Likes
- Impact of Celebrity on Brands- Age Matters??????????

The paper depicts the assumptions and cleaning procedures implemented in analyzing the data.

- **Technologies used:**
 - PowerBI
 - NLP
 - Python
 - Google Collapse

When embarking on the task of exploring data, the initial and often lengthy phase involves data cleaning. This involves importing the datasets and determining which variables are relevant, while discarding the irrelevant ones. It also involves the removal of erroneous or corrupt data, rectifying errors and making an effort to retain as much high-quality data as possible.

- **Cleaning Steps:**
 - Removed all columns with NULL
 - Selected words that only English language
 - Removed duplicates

2. Ratings:

a. Top-10 Commercials

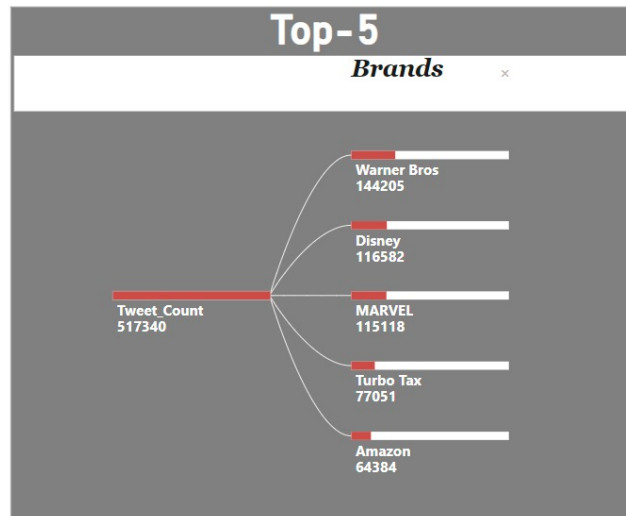
By analyzing the number of tweets per commercial, we have identified the ten most popular advertisements that were aired during the Super Bowl. These commercials received a high number of tweets and retweets on social media.

Top-10 Commercials	
Warner Bros. Trailer: The Flash Count of text 93949	Disney 100 Special Look Count of text 87883
MARVEL- Guardians Galaxy Count of text 86623	Pepsi Zero Sugar: Ben Stiller-Great Acting or Great Taste Count of text 67283
Limit Break Count of text 51590	Turbo Tax live2023 Count of text 50636
Amazon Saving Sawyer Count of text 45762	Tubi Count of text 42428
T-Mobile The Re-write Count of text 41702	FanDuel: Kick of Destiny Count of text 41037

Warner bros. Trailer: The Flash secured highest number of tweets (93949), followed by Disney 100 Special look (87883) and Marvel-Guardians Galaxy. (86623). Clearly, the media and streaming industries ruling again. Pepsi Zero Sugar starring Ben Stiller received 67283 tweets. Great Acting??? Or Great Taste???

b. Top-5 Brands

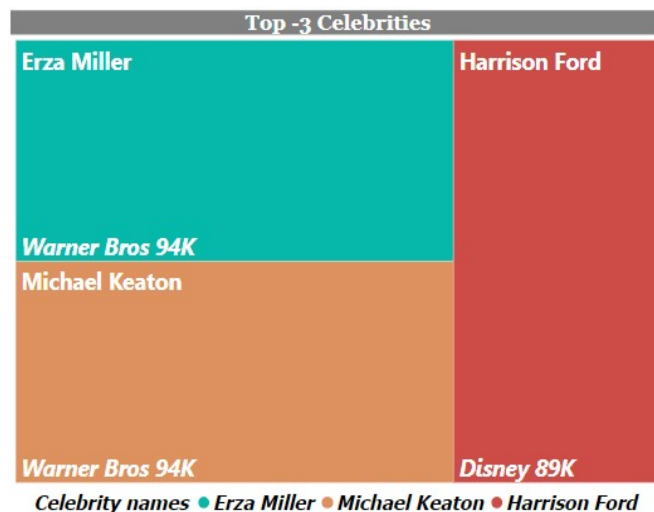
After scrutinizing the volume of tweets associated with each commercial, we have ascertained the five most favored brands that featured in the Super Bowl broadcasts. These commercials generated a significant number of tweets.



With an impressive count of 144,205 tweets, Warner Bros emerges as the clear leader in the number of tweets gathered. Disney closely follows with 116,582 tweets, and Marvel is not far behind with 115,118 tweets.

c. Top-3 Celebrities

Ah, the ever-so-charming allure of celebrities! Their mere presence can trigger an explosive buzz of activity on social media. As we dive deeper into this topic, we are pleased to share with you the paper's findings on three exceptional celebrities who have certainly earned their fair share of accolades.



d. Most tweeted word



3. Revenue:

Ah, the power of numbers! When it comes to deciding the winners based on numbers, money usually takes the lead. And boy oh boy, when we're talking about the Super Bowl, we're talking about some serious cash flow! The commercials alone rake in an insane amount of revenue, with Fox channel charging a whopping \$7 million for a mere 30-second advertisement. Can you even fathom that?! The total income generated through commercials during the Super Bowl was a mind-blowing \$800 million dollars! But here's the million-dollar question: did the brands that shelled out all that dough actually see a return on their investment? Let's delve deeper and find out, shall we?

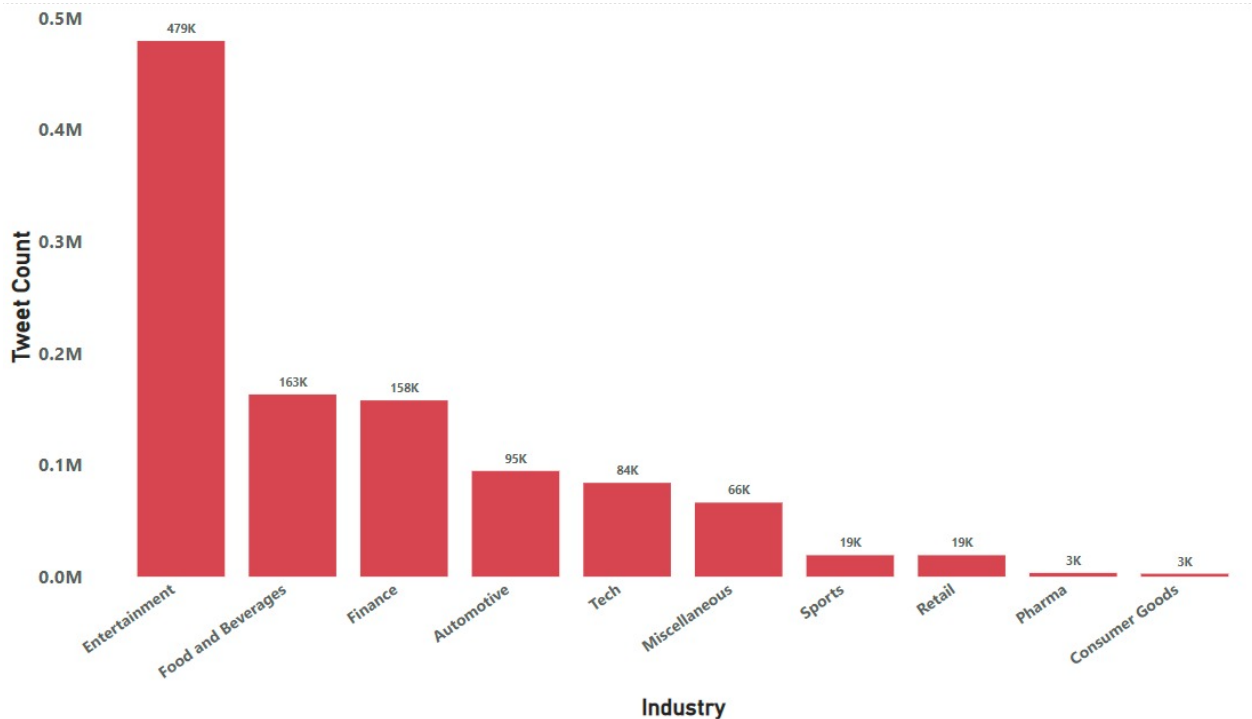
a. Costliest tweet vs Cheapest tweet:

In this context, a cost-effective tweet is one that is relatively inexpensive, while a prohibitively expensive tweet may indicate the company's failure to effectively penetrate its target market through its marketing efforts.

MARVEL			Paycom		
60.81	115118		437,500.00	16	
cost_per_tweet	Tweet_Count		cost_per_tweet	Tweet_Count	
Warner Bros			UFirst		
72.81	144205		897,435.90	13	
cost_per_tweet	Tweet_Count		cost_per_tweet	Tweet_Count	
Limit Break			Bud Light		
116.05	56299		1,400,000.00	10	
cost_per_tweet	Tweet_Count		cost_per_tweet	Tweet_Count	
Turbo Tax			Dexcom		
139.30	77051		1,750,000.00	4	
cost_per_tweet	Tweet_Count		cost_per_tweet	Tweet_Count	
H&R BLOCK			carnival		
145.29	24089		13,999,999.98	1	
cost_per_tweet	Tweet_Count		cost_per_tweet	Tweet_Count	

b. Industry Spend Analysis:

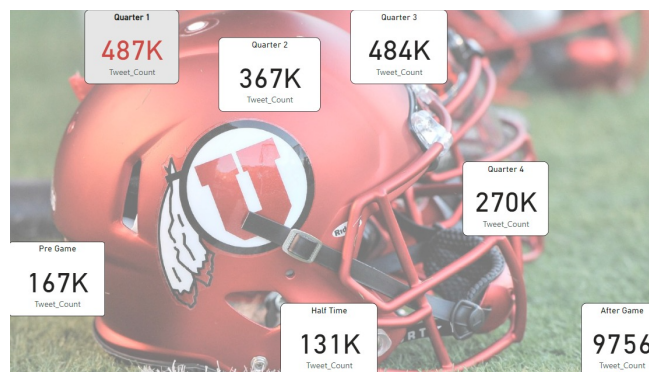
Is there a clear industry winner that rules the tweets? Will this year be different from past?



4. Reach:

a. Brands performance across quarters:

After refining the data, we discovered that the first quarter of the event garnered the highest number of tweets. Furthermore, the brands' performances varied during this time, and their attention-grabbing attributes will be expounded upon in the paper.



b. Sentiment Analysis-Quality of Likes:

When a brand or commercial receives a high number of tweets, there is a greater likelihood of it receiving more likes. As such, our focus is on assessing the quality of these likes. Specifically, we have computed the average of both likes and total tweets to gain insights into the quality of the likes.

c. Impact of Celebrity on Brands- Age Matters??

Ah, the power of celebrity endorsements! It's true, having a celebrity in a commercial can definitely boost the number of tweets it receives. However, let's not underestimate the impact of good old-fashioned creativity and emotional appeal! Take for instance The Farmer's Dog's commercial "Forever," which featured an irresistibly cute puppy and a heartwarming storyline that tugged at our heartstrings (who can resist a cute pup, am I right?!). Then there's Popcorners' "Breaking Good" commercial, which tapped into our nostalgia by bringing back memories of one of the greatest TV series of all time. These commercials are proof that creativity and emotional resonance can be just as effective in garnering tweets as a celebrity endorsement.

