GAME DAY ANALYTICS CHALLENGE 2024

Prepared By

GRAD 223

VARUN

SHASHANK

DEVIKA

HARIKA

21 February 2024

Introduction

The Super Bowl, serving as the ultimate playoff game in the National Football League (NFL) to determine the league's champion, maintains its significance. While this year's Super Bowl weekend mirrors the familiarity of the previous one, there's an unmistakable sense of freshness in the overall atmosphere. The NFL's annual championship game holds a prominent position as one of the most widely watched sporting events globally. The substantial viewership has led companies to invest millions in advertising, with an average of $7 million spent on 30-second ads during Super Bowl LVII, as reported by Statista. The event's grandeur reaches its peak with a much anticipated and legendary halftime show that captures the attention of millions worldwide.

Super Bowl advertisers strategically utilized the game to showcase their products, capitalizing on the captive audience before, during, and after the event. Our primary objective was to harness the power of social media, particularly Twitter, to extract valuable insights from the continuous stream of tweets during and after the Super Bowl. This approach provided us with an abundance of information, enabling us to substantiate the sponsor's return on investment. Twitter, being an effective and direct channel, played a pivotal role for brand owners in connecting with their customers and simultaneously gauging their responses.

To achieve our goals, our team thoroughly examined both the provided data set and newly gathered information on estimated average costs. The objectives we aimed to address were as follows:

- Identify the most popular brands based on Twitter counts.
- Assess how effectively each brand achieved their desired ad exposure.
- Evaluate the return on investment for brands that participated in the Super Bowl.
- Perform data analysis to uncover factors contributing to the success of the most tweeted brands and what positioned them as true winners in the context of Super Bowl advertising.

## Brand Commercials and the Tweets
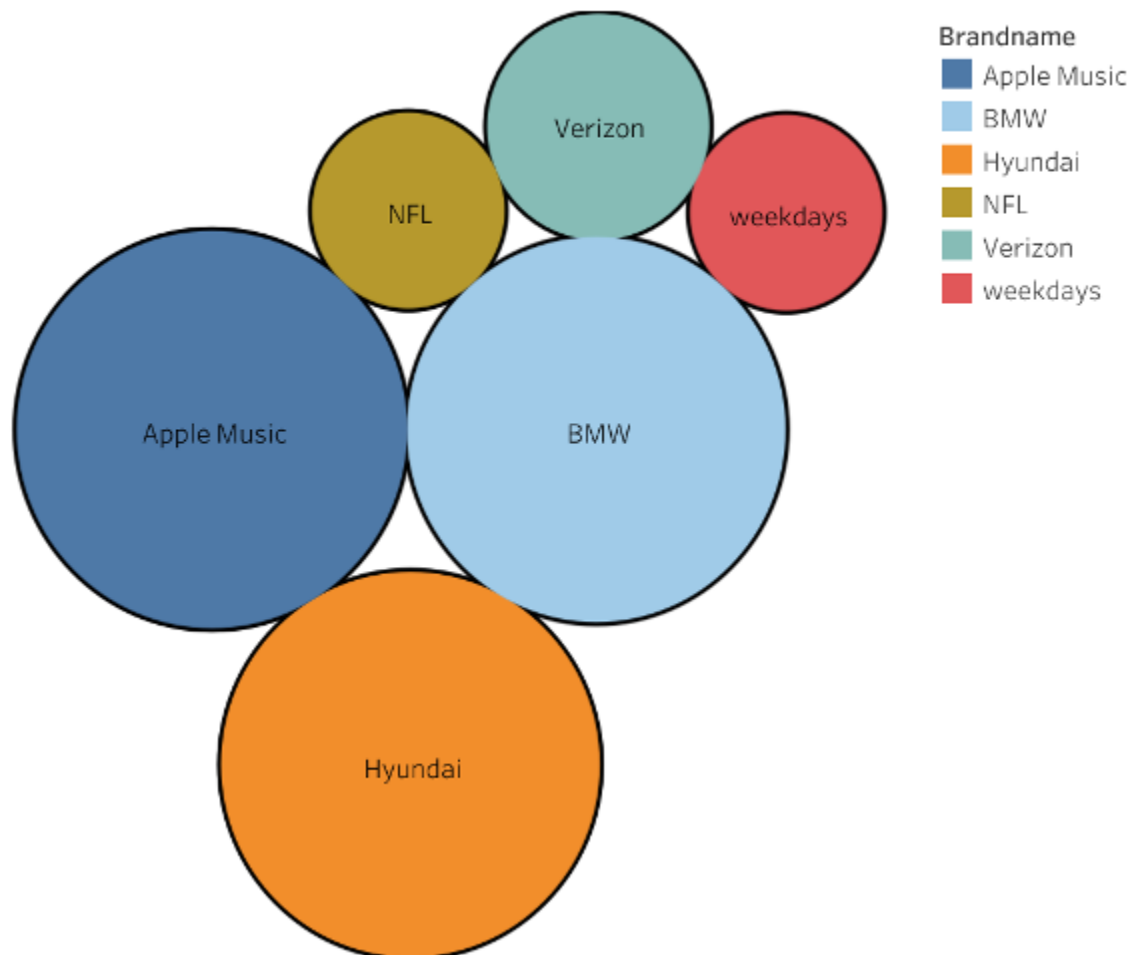
From our analysis on tweet impressions, several insights can be gleaned regarding the marketing strategies of the brands mentioned. Firstly, Apple Music's sponsorship of the NFL's Super Bowl halftime show demonstrates the value of strategic partnerships between brands and events to reach a wider audience. Secondly, Hyundai campaigns to highlight the vehicle's features and capabilities, emphasizing its suitability for weekend adventures and activities. It aims to convey a sense of versatility, durability, and reliability, encouraging potential customers to consider the Hyundai Santa Fe for their weekend escapades. Thirdly, BMW showcasing the first ever BMW i5 M60 electric sedan, titled "Talkin' Like Walken," features a constellation of stars including Hollywood legend Christopher Walken, renowned actress Ashley Park, and the Grammy Award-

winning artist and Super Bowl LVIII halftime show performer. Lastly, the various advertising campaigns and partnerships between brands and celebrities indicate the importance of leveraging the influence and reach of well-known figures to promote products and services. Overall, these insights suggest that successful marketing strategies involve a combination of partnerships, user-generated content, memorable advertisements, and influencer marketing.

Brand Commercials and their Quarterly Twitter Engagement

Number of Tweets VS Quarter
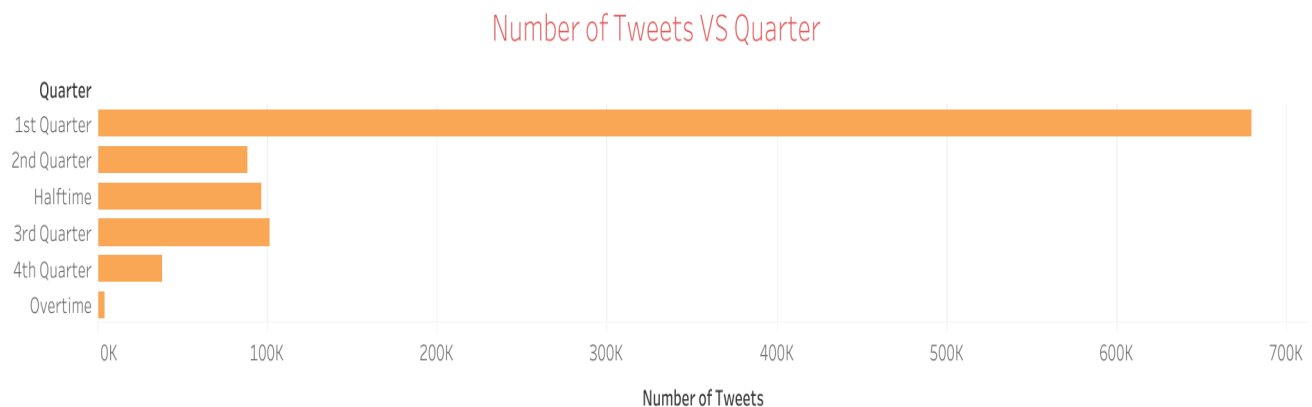
The above graph compares the number of tweets during different quarters of a game or event, including the halftime show, and the overtime period. The data shows that the 1st quarter had the highest number of tweets. (Over 600k tweets for the 1st quarter) The 2nd, 3rd quarters and half time had significantly fewer tweets, with around 100,000 tweets capturing nearly equal shares of the overall percentage respectively. The 4th quarter period had very few tweets, less than 50,000 tweets.

Understanding the volume of tweets during different quarters of a game or event can provide valuable insights for businesses looking to maximize their social media engagement. By identifying the periods with the highest tweet volume, businesses can tailor their social media strategies to capitalize on these peak times. For example, they can purchase airtime that coincides with the 1st quarter to reach a larger audience. Additionally, analyzing the content of the tweets during these peak periods can provide insights into consumer behavior and preferences, allowing businesses to create more targeted and effective marketing campaigns. Overall, understanding the volume of tweets during different quarters of a game or event can help businesses optimize their social media strategies and improve their marketing efforts.

Most responsive States:


Number of Tweets vs State
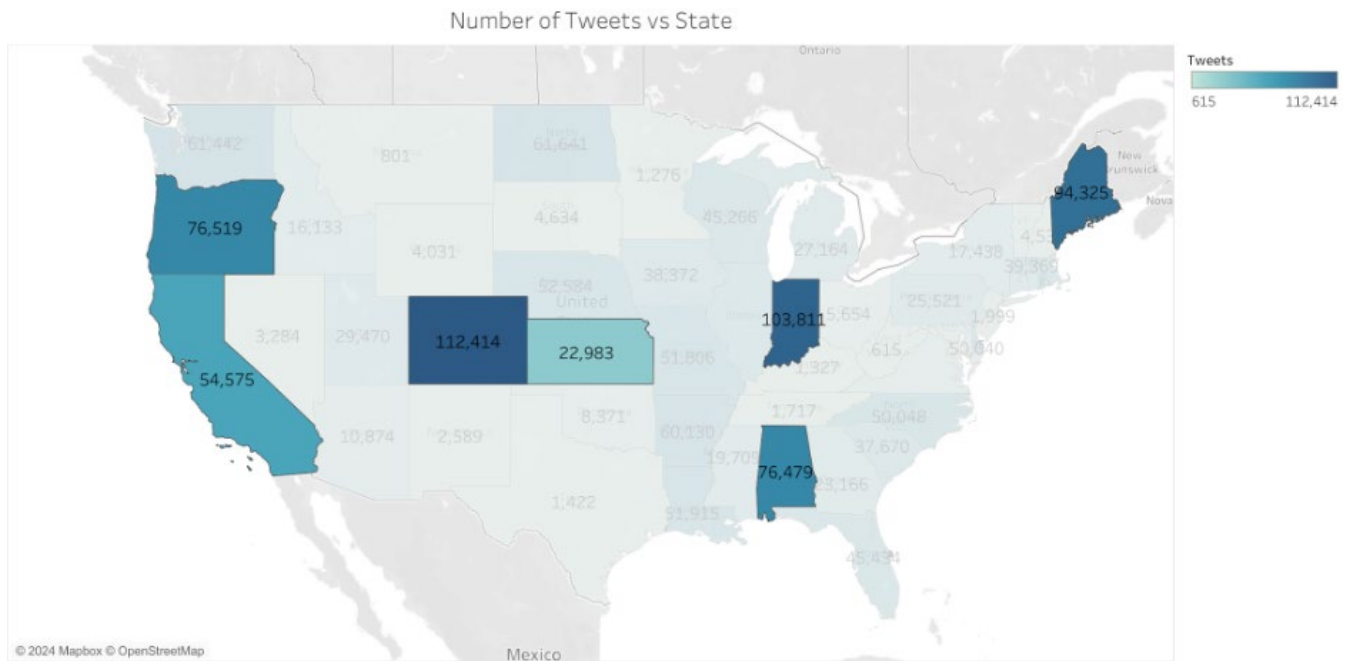
After performing data cleaning and analysis on the "location" column, we identified the states with the highest volume of tweets during Super Bowl 58. The results indicate that Colorado emerged as the most actively participating state, followed by Indiana and Maine. This data offers valuable insights into the level of engagement and interest in the event across different states.

By analyzing the number of tweets for each state and city, businesses can identify the regions with the highest social media activity and tailor their marketing strategies accordingly. For example, if a business is targeting a specific region, they can use this data to determine the potential reach and impact of their social media campaigns in that region. Additionally, businesses can use this data to identify the most active social media users and target their marketing efforts towards those users. Overall, understanding the volume of tweets for each state and city can help businesses optimize their marketing strategies and improve their return on investment.

Which Brand Received The Most Likes:

Tweets with Most Number of Likes Based on Brand Names
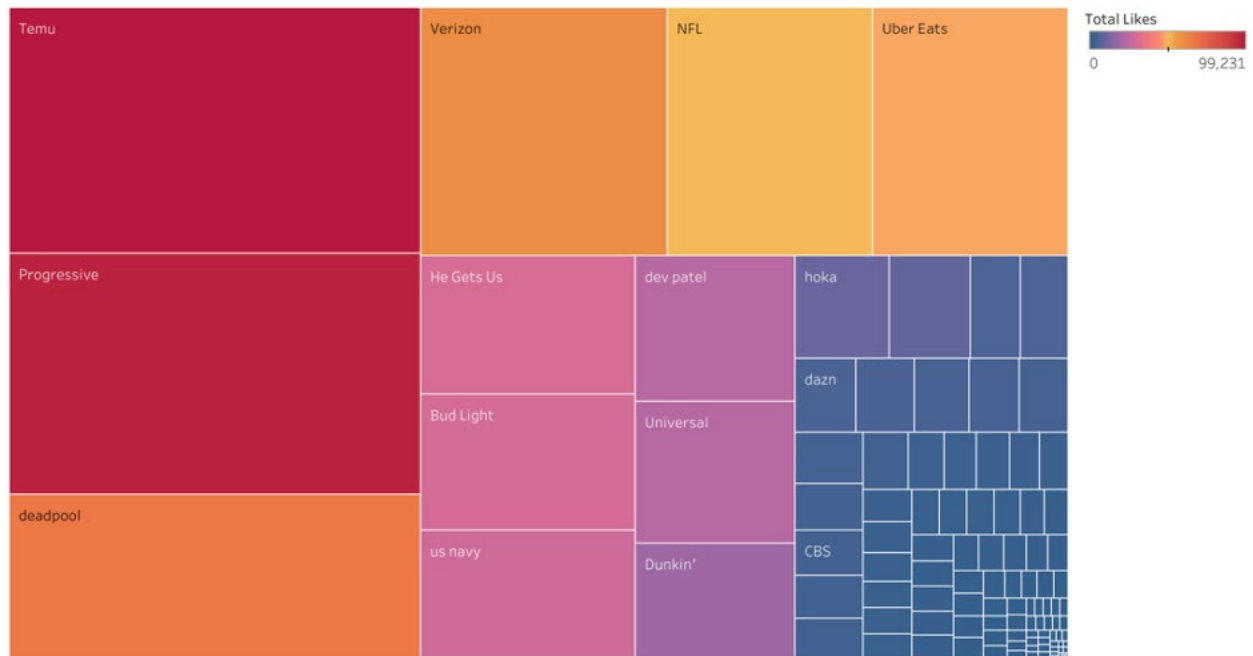
The tableau visualization showcases the top likes for the tweets during the Super Bowl 2024 event, with varying shades of red indicating higher usage and larger box sizes correlating with greater frequency.

The visualization provides insights into the popularity of various brands on Twitter, as measured by the number of likes received by tweets associated with each brand. The brands with the most likes include a mix of categories such as insurance (Progressive), entertainment (Deadpool, NFL, Universal, CBS), technology (Verizon, Dazn), food and beverage (Bud Light, Dunkin', Uber Eats), and public institutions (US Navy). The presence of Deadpool, a fictional character, in the list suggests the power of pop culture in driving social media engagement.

This information can be valuable for businesses for several reasons. Firstly, it provides insights into consumer behavior and preferences, which can inform marketing and branding strategies. By understanding what types of content resonate with audiences, businesses can create more effective campaigns that increase engagement and brand awareness. Secondly, the list can be used to identify trends and opportunities for collaboration or partnership with other brands. Finally, the list can serve as a benchmark for businesses to measure their own social media performance against competitors and industry leaders, helping to potentially identify areas for improvement and growth.

Mean and Median Count of Tweets Based on Celebrity Appearance:
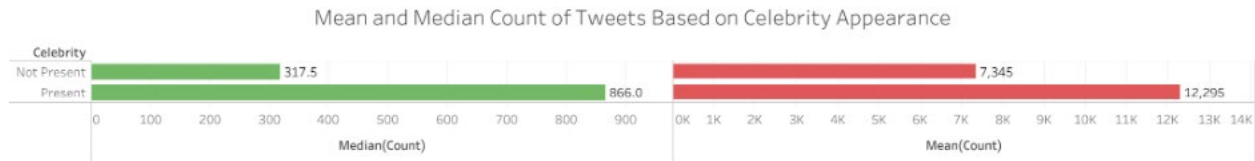
The image presents a chart comparing the mean and median count of tweets based on celebrity appearance. The chart is divided into two sections: one that displays the average amount of tweets for when a celebrity is not present vs present. The other section is the median amount of tweets for when the celebrity is not present vs present. In the median section where the celebrity is not present, the mean count of tweets for a brand is 317.5, and the mean count is 7,345. However, in the median section where a celebrity is present, the count of tweets increases, with the median count reaching 866. Additionally, in the mean section where the celebrity is present, the mean count of tweets is significantly higher reaching 12,295 tweets. Overall, the chart shows that the presence of a celebrity leads to a higher volume of tweets, with a significant increase in both the mean and median count.

Brand Tweets Before and After the SuperBowl:
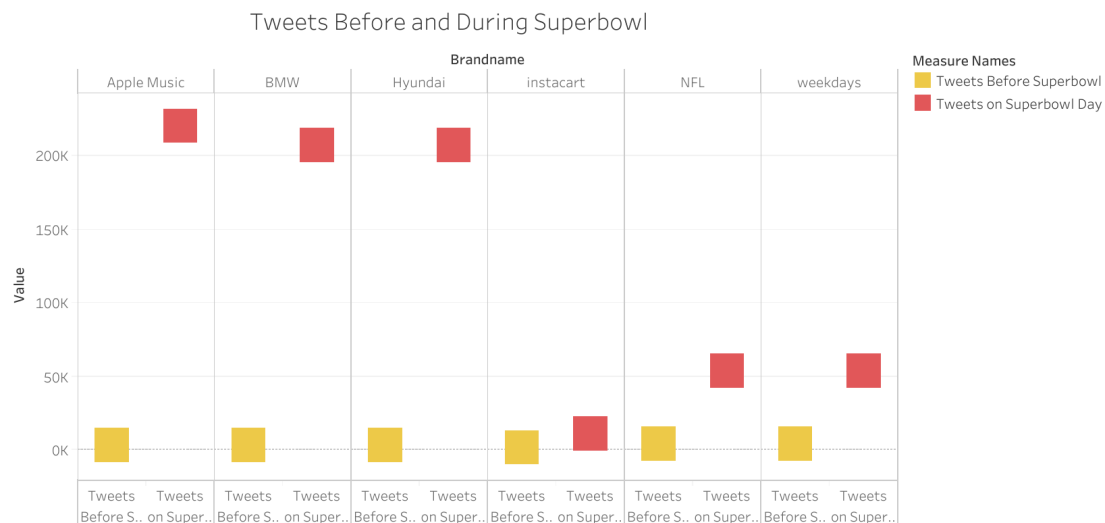
This graph compares the number of tweets for various brands and topics before the Superbowl and on Superbowl day. There are several lines on the graph, each representing a different brand or topic.

The "Tweets Before Superbowl" measure shows the number of tweets for each brand in the time period (2 days) leading up to the Superbowl. The "Tweets on Superbowl Day" measure shows the number of tweets for each brand or topic on the day of the Superbowl.

The values on the left side of the graph indicate the number of tweets. For example, the line for "Apple Music" reaches a value of about 206,000 on Superbowl day, indicating that there were approximately 206,000 tweets about Apple Music on Superbowl day. Apple Music is also the brand that benefited the most with a very large increase in tweets on the day of the Superbowl when compared to the previous 2 days.

Overall, businesses can use this graph to see what their competitors did to get a large spike in tweets and emulate those qualities in their ads next quarter. It additionally shows the potential that the Superbowl has in increasing tweets and engagement with a brand. This is even true to an extent for brands that were not trending the previous 2 days before the Superbowl like with NFL and Weekdays.

Conclusion:

In conclusion, the 2024 Super Bowl provided a valuable platform for brands to showcase their products and services, reaching a massive global audience. Through the analysis of tweet impressions and engagement, several key insights were uncovered. Apple Music's strategic partnership with the NFL's halftime show proved successful, reaching a wide audience. Brands like Hyundai and BMW effectively utilized user-generated content, memorable advertisements, and influencer marketing to highlight their products' features and capabilities.

The volume of tweets during different quarters of the game revealed that the first quarter had the highest number of tweets, offering valuable insights for businesses to optimize their social media strategies. The most responsive states, Colorado, Indiana, and Maine, emerged as the most actively participating states, offering insights into regional engagement and interest.

The Brand Likes Tweets visualization highlighted the popularity of various brands on Twitter, with Temu, Progressive, Deadpool, NFL, Universal, CBS, Verizon, Dazn, Bud Light, Dunkin', Uber Eats, and US Navy receiving the most likes. This information can

inform marketing and branding strategies, identify trends, and serve as a benchmark for businesses to measure their social media performance.

Lastly, the presence of a celebrity significantly increased the volume of tweets, with both the mean and median count of tweets being higher when a celebrity was involved in the advertisement. Overall, the findings from this report can help businesses optimize their marketing strategies, improve their return on investment, and better understand consumer behavior and preferences in the context of major events like the Super Bowl.