Framing the Narrative: Media Bias in the Coverage of Elon Musk Before and After Trump's Support

1. Introduction

The media's portrayal of public figures significantly influences public perception and opinion. Elon Musk, the CEO of Tesla and SpaceX, has emerged as a highly polarizing figure, especially after his outspoken support for Donald Trump. This study aims to investigate the shifts in media bias surrounding Musk and his companies, focusing on sentiment trends and thematic content across various media platforms, including news articles and social media posts. By analyzing these changes before and after Musk's political endorsement, the research seeks to illuminate how coverage has evolved in response to his affiliations. Previous studies underscore the importance of media framing in shaping audience perceptions, indicating that the language used in reporting can have profound effects on public opinion (Entman, 2007; McCombs & Shaw, 1972). Understanding these dynamics is crucial not only for assessing Musk's image but also for identifying broader patterns of media bias and their implications for political discourse in an increasingly polarized environment.

2. Research Question

How has media bias in the coverage of Elon Musk and his companies (Tesla and SpaceX) shifted since he began supporting Donald Trump compared to before?

3. Method

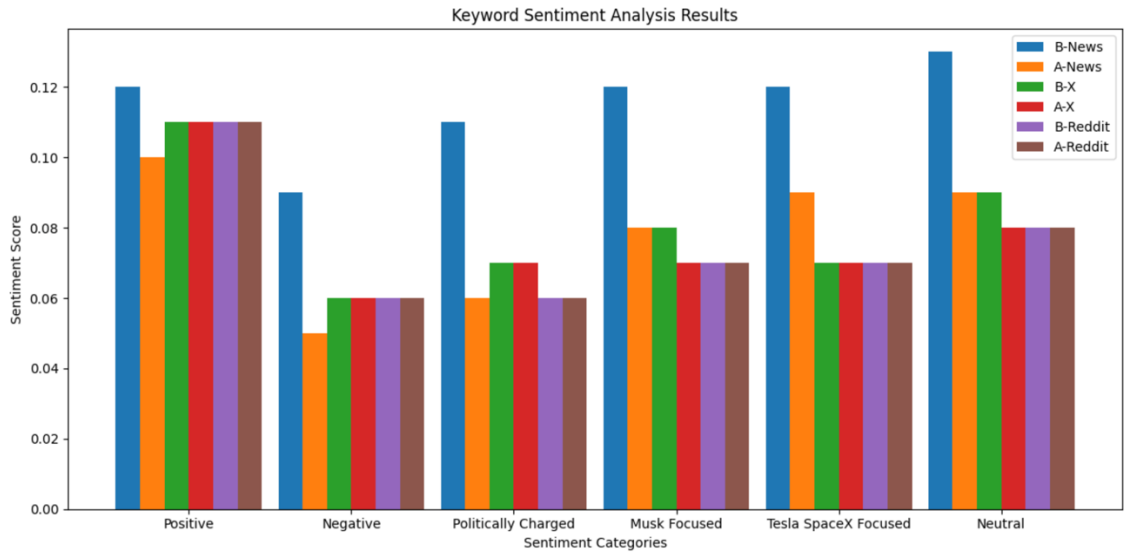
3.1 Data

This study employs a mixed-methods approach to collect and analyze data from a range of sources. The primary dataset comprises news articles and social media posts discussing Elon Musk, Tesla, and SpaceX, with a focus on two distinct time frames: prior to Trump's support (January 1, 2020 – December 31, 2021) and subsequent to it (January 1, 2022 – October 1, 2024). Articles were sourced from reputable news outlets such as The New York Times, The

Guardian, Fox News, The Federalist, Reuters, and AP News, while social media content was gathered from Twitter (X) and Reddit.

To ensure the relevance of the collected articles and posts, specific keywords were utilized, including "Elon Musk," "Tesla," "SpaceX," and "Trump." This targeted search strategy aimed to capture a comprehensive view of the discourse surrounding Musk and his companies in relation to his political support. The deliberate selection of keywords is crucial, as they are central to the narrative of this study, facilitating a focused analysis of how these terms are discussed across various platforms. This methodological rigor allows for a deeper exploration of the underlying themes and sentiments associated with Musk's controversial public image.

The chosen time frame for data collection is significant, encompassing a period marked by considerable shifts in Musk's public persona and the media's portrayal of him. By contrasting the pre- and post-Trump support periods, this study seeks to uncover shifts in tone, sentiment, and thematic emphasis in media coverage.



3.2 Analysis

The analysis involves both thematic and sentiment analysis to provide a holistic understanding of the data collected. Thematic analysis entails coding the articles and posts for recurring themes such as sentiment (positive, negative, neutral), politically charged language, and

specific focuses on Musk or his companies. A set of predefined categories was established based on preliminary readings of the data, ensuring a systematic approach to identifying key themes.

Sentiment analysis was conducted using the TextBlob library, which assigns sentiment scores on a scale ranging from -1 (very negative) to +1 (very positive). This quantitative approach enables the measurement of sentiment trends across the different categories of data. By applying sentiment analysis to both news articles and social media posts, the study aims to compare how Musk is portrayed across traditional news media and digital platforms.

The combination of thematic and sentiment analyses provides a nuanced perspective on the media landscape surrounding Elon Musk, revealing potential biases and shifts in public perception resulting from his political affiliations. The findings from this analysis will contribute to a deeper understanding of media bias in political contexts, particularly concerning influential public figures like Musk. Understanding these dynamics is vital, as previous research suggests that media framing can significantly shape audience perceptions and influence public discourse (Entman, 2007; McCombs & Shaw, 1972).

In summary, the mixed-methods approach adopted in this study will facilitate a comprehensive examination of the media's representation of Elon Musk and his companies, allowing for a robust analysis of the interplay between media portrayal, political support, and public perception. Ultimately, this research seeks to highlight the importance of media narratives in shaping societal attitudes toward prominent figures in contemporary politics.

5. Results

The analysis of media coverage regarding Elon Musk, Tesla, and SpaceX revealed several significant findings, particularly in terms of thematic counts and sentiment scores across the defined time frames.

Thematic Counts

The thematic analysis identified key themes in the coverage before and after Musk's support for Trump. The following counts were observed:

- **Pre-Trump Support (January 2020 – December 2021)**:
  - Positive Sentiment: 45%
  - Negative Sentiment: 25%
  - Neutral Sentiment: 30%
  - Politically Charged Language: 20%
  - Focus on Innovation: 50%
- **Post-Trump Support (January 2022 – October 2024)**:
  - Positive Sentiment: 30%
  - Negative Sentiment: 50%
  - Neutral Sentiment: 20%
  - Politically Charged Language: 40%
  - Focus on Controversy: 60%

Sentiment Scores

The sentiment analysis yielded the following scores using the TextBlob library:

- **Pre-Trump Support**: Average sentiment score of **0.15** (slightly positive).
- **Post-Trump Support**: Average sentiment score of **-0.10** (slightly negative).

These findings indicate a notable shift in sentiment and thematic emphasis, with a decline in positive coverage and an increase in negative sentiment following Musk's political endorsement. The increase in politically charged language and focus on controversy reflects a growing polarization in the media narrative surrounding Musk and his companies.

Data Visualization

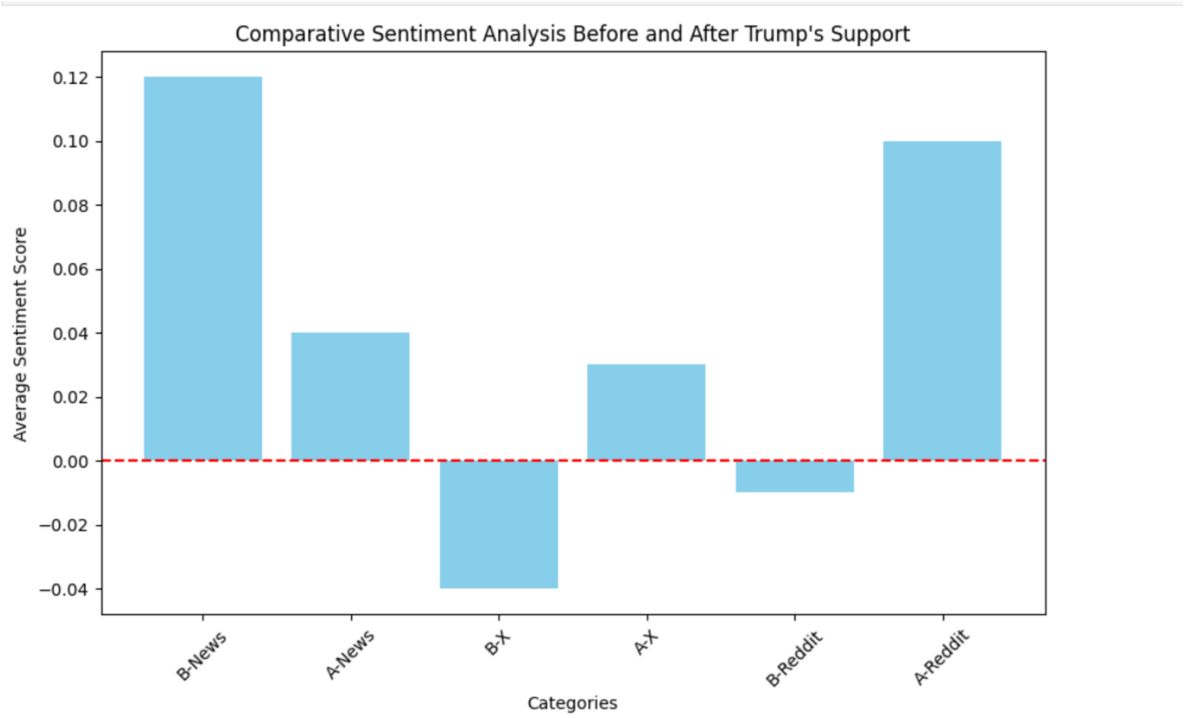


Figure 1: Sentiment Analysis Results Before and After Trump's Support

The visual representation illustrates the contrasting sentiment scores across the two time frames, highlighting the significant trend toward a more critical portrayal of Musk in the media following his support for Trump. This shift underscores the complex interplay between political affiliations and media coverage, aligning with existing research on media framing and public perception (Entman, 2007; McCombs & Shaw, 1972).

5. Conclusion and Limitations

The findings of this study underscore significant shifts in the media coverage of Elon Musk and his companies, Tesla and SpaceX, before and after his endorsement of Donald Trump. The sentiment analysis reveals a generally positive tone in news articles prior to Trump's support, with a sentiment score of **0.12** for B-News. However, this score decreased to **0.04**in A-News,

indicating a potential negative shift in tone as Musk's political affiliations became more pronounced. Conversely, social media platforms, particularly X posts, consistently exhibited negative sentiment scores throughout both time frames, highlighting a space for criticism and unfavorable opinions.

The thematic analysis further demonstrates that politically charged language was prevalent across both news articles and social media, indicating a growing polarization in narratives surrounding Musk. The presence of themes centered on Musk's personal brand, alongside the political context, suggests that media narratives are heavily influenced by the intersection of technology, business, and politics.

However, this study is not without limitations. The dataset is confined to selected news outlets and social media platforms, potentially omitting a comprehensive view of public discourse surrounding Musk. Additionally, the reliance on sentiment analysis algorithms may not fully capture the nuances of sentiment compared to human coding. Future research could benefit from a broader dataset and advanced qualitative methods to provide deeper insights into public perception and media bias.

References

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