**Marketing Analytics Project Proposal**

**Contents**

Introduction and Motivation…………………………………………………………………………….1

Dataset……………………………………………………………….………………….…………………… 1

Industry………………………………………………………………………………….…………………… 1

Dataset Details……………………………………………………………..……………………………… 2

Market Problem…………………………………………………………………………….……………… 2

Problem Approach/Solving the problem…………………………………………………………… 2

Tools…………………………………………………………………………..……………………………… 3

Timeline……………………………………………………………………………………………………… 3

**Introduction and Motivation:**

I chose to analyze META (formerly Facebook) due to its pivotal role in digital marketing and social media. The company's adaptive strategies in response to market shifts, including its focus on AI and emerging technologies, make it an interesting subject for analysis. My primary interest lies in evaluating how META's public perception and financial performance are influenced by market sentiment, particularly in light of recent trends in hedge fund investments.

**Dataset:**

Data Source: Yahoo Finance

https://github.com/KarthikeyanBaskaran/Marketing- Analytics/blob/main/Individual%20Project/meta\_news\_articles.csv

I manually scraped the data, and the code for the scraping process is available in the GitHub repository.

**Industry:** Social Media and Digital Advertising

**Dataset Details:**

The dataset consists of articles and information related to META, focusing on hedge fund sentiment and stock performance. Key features include:

|  |  |
| --- | --- |
| Features | Description |
| Title | Title of the article |
| Link | URL to the article |
| Short Body | Summary of the article |
| Additional Info | Extra context |
| Source | Source of the information |
| Posted Date | Date the article was published |

The dataset spans the latest articles, providing insights into recent market perceptions and trends as of October 2024.

**Market Problem:**

Initial analysis suggests a potential issue with the disconnect between public sentiment and META's actual market performance. While hedge funds may exhibit bullishness toward META, it is crucial to investigate whether the sentiment expressed in recent articles aligns with sustained financial growth and user engagement. I will focus on:

* The relationship between sentiment derived from news articles and META’s stock performance.
* Analyzing how variations in public sentiment impact investor perception and market trends

**Problem Approach/Solving the Problem:**

To tackle the identified market problem, I will employ the following approach:

1. Data Cleaning: Ensure the dataset is free of duplicates and inconsistencies.

2. Exploratory Data Analysis (EDA): Analyze the frequency of positive versus negative articles and their potential impact on stock performance.

3. Visualizations: Create visual representations to showcase trends in hedge fund sentiment and stock price movements.

4. Sentiment Analysis: Apply natural language processing techniques to gauge public sentiment from the articles.

5. Conclusion: Summarize insights and recommend strategies for META to align its marketing efforts with market sentiment.

**Tools:**

- Programming Language: Python

- Libraries: NumPy, Pandas, Seaborn, NLTK (for sentiment analysis)

- Environment: Jupyter Notebook

- Visualization Tool: Tableau

**Timeline:**

|  |  |
| --- | --- |
| Task | Estimated Completion Date |
| Data Cleaning | Week 1 |
| Exploratory Data Analysis | Week 2 |
| Visualizations | Week 3 |
| Sentiment Analysis | Week 4 |
| Conclusion and Report | Week 5 |