

Proposal for Data Analysis Approaches on @CommBank Twitter Account

Introduction

Social media platforms, particularly Twitter, offer valuable insights into customer sentiment, trends, and engagement. The @CommBank Twitter account serves as a key touchpoint for customer interactions, feedback, and brand communication. By leveraging Twitter's API, InsightSpark can extract and analyze data from this account to generate actionable business insights.

Objectives

The primary objectives of this analysis are:

- **Sentiment Analysis:** Understanding public perception of CommBank's services and customer satisfaction levels.
- **Customer Feedback Insights:** Identifying common issues, complaints, and praise points.
- **Engagement Metrics:** Analyzing user engagement trends to optimize marketing strategies.
- **Competitive Benchmarking:** Comparing CommBank's Twitter presence with competitors.
- **Trending Topics and Hashtags:** Monitoring discussions and hashtags related to CommBank for strategic content planning.

Data Collection Approach

1. Utilizing Twitter API

- Fetch tweets, retweets, replies, and mentions related to @CommBank.
- Collect meta data such as timestamps, user details, hashtags, and URLs.
- Extract sentiment-related features like emojis and keyword frequency.

2. Data Preprocessing

- Cleaning textual data (removing special characters, links, stopwords, etc.).
- Tokenization and lemmatization for NLP analysis.
- Filtering relevant tweets based on keywords and user interactions.

Analytical Methods

1. Sentiment Analysis

- Implement Natural Language Processing (NLP) techniques to classify tweets as positive, neutral, or negative.
- Use models like VADER (Valence Aware Dictionary and sEntiment Reasoner) for real-time sentiment detection.

2. Topic Modeling

- Apply Latent Dirichlet Allocation (LDA) or BERTopic to identify trending topics in customer discussions.
- Categorize tweets into themes such as customer service, mobile banking, fraud alerts, etc.

3. Engagement Analysis

- Measure engagement metrics (likes, retweets, replies) to evaluate content performance.
- Identify peak interaction hours and high-performing content types.

4. Network Analysis

- Identify key influencers and frequent interactors with @CommBank.
- Track viral tweet patterns and their impact on brand perception.

5. Competitive Analysis

- Compare sentiment scores and engagement metrics with competitor banks.
- Benchmark social media performance against industry standards.

Business Applications

- **Enhanced Customer Service:** Identify recurring issues for proactive resolution.
- **Reputation Management:** Monitor sentiment fluctuations and respond to negative feedback promptly.
- **Marketing Optimization:** Tailor marketing campaigns based on trending topics and engagement insights.
- **Crisis Detection:** Detect and mitigate potential PR crises in real-time.

Conclusion

By implementing these data analysis approaches, InsightSpark can provide CommBank with valuable insights to enhance customer experience, optimize engagement, and strengthen brand reputation on social media.