

Trader Behavior Analysis Based on Market Sentiment

Objective

The objective of this analysis is to study how trader behavior and performance change under different market sentiment conditions such as Fear and Greed.

Datasets Used

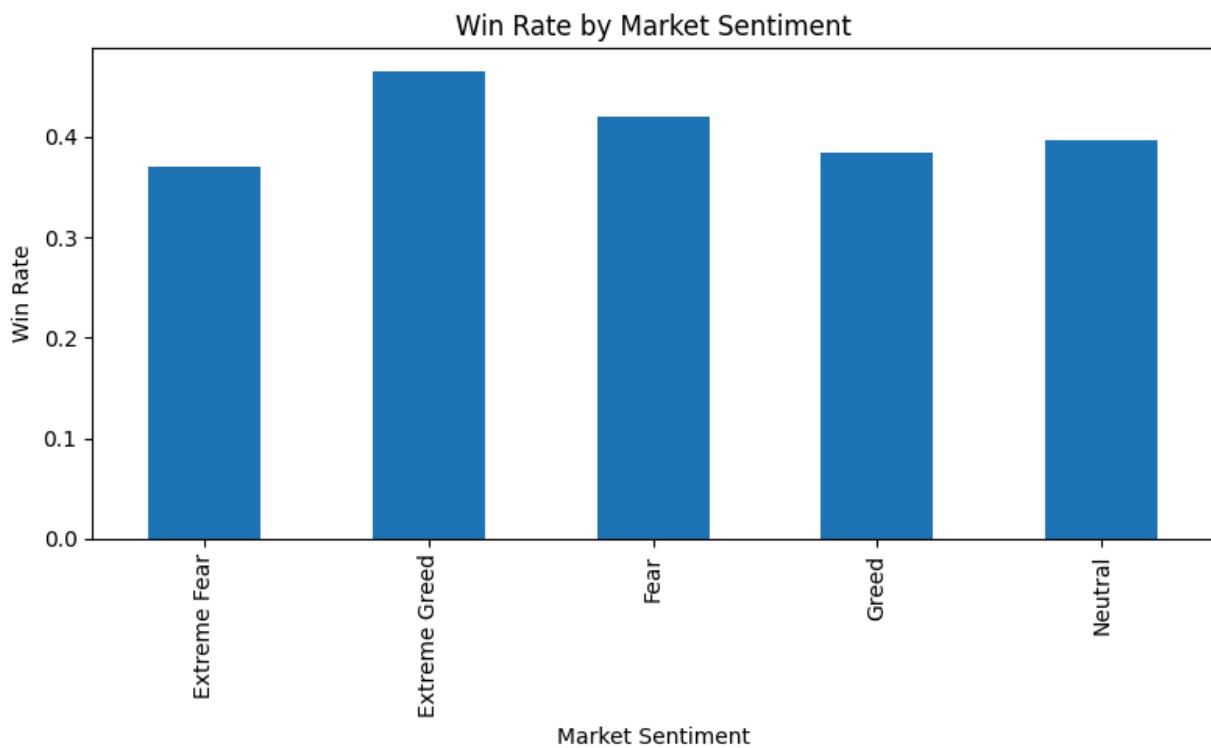
- Historical trader-level data containing trade price, size, direction, and closed profit or loss.
- Bitcoin market sentiment data classified into Fear, Neutral, and Greed categories.

Methodology

- Trade timestamps were converted into dates to align with daily sentiment data.
- Trader data was merged with market sentiment using date as the common key.
- Profitability, win rate, and trade size were analyzed across sentiment categories.
- Visualizations were used to compare distributions and trends.

Key Findings

- Average profitability is higher during Greed and Extreme Greed periods.
- Median profit is close to zero across all sentiment categories.
- Win rate is higher during positive sentiment conditions.
- Trade sizes are larger during Greed periods, indicating increased risk-taking.
- Fear periods show more cautious trading behavior.



Business Implications

- Trading strategies may perform better during positive sentiment periods.
- Risk management becomes important during Greed due to larger trade sizes.
- Market sentiment can act as a supporting signal for trading decisions.

Limitations & Future Work

- Leverage data was not available for deeper risk analysis.
- Trader segmentation could provide more detailed insights.
- Adding volatility metrics could improve future analysis.