Analysis of Trader Behavior vs Market Sentiment

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Objective

The objective of this analysis is to study how trader behavior—profitability, risk, volume, and leverage—aligns or diverges from overall Bitcoin market sentiment classified as Fear or Greed. The goal is to identify patterns that can support smarter trading strategies.

Datasets Used

1. Bitcoin Fear & Greed Index
- Daily sentiment classification: Fear / Greed

2. Historical Trader Data (Hyperliquid)
- Trade-level data including side, size, PnL, timestamp, and risk exposure

Methodology

- Converted timestamps into comparable daily dates
- Cleaned and standardized numeric fields
- Merged trader data with market sentiment by date
- Aggregated metrics by sentiment classification
- Visualized patterns using statistical charts

Key Findings

Profitability

Average closed PnL is higher during Greed periods, indicating momentum-driven trading.

Volume

Trade volume increases significantly during Greed, reflecting higher market participation.

Risk

Traders deploy larger average capital during Greed, suggesting increased risk appetite.

Buy vs Sell Behavior

Buy-side dominance is observed during Greed, while Fear phases show more cautious behavior.

Hidden Trends & Signals

- Greed phases encourage aggressive, high-volume trading with higher exposure.
- Fear phases show reduced activity, potentially offering contrarian opportunities.
- Incorporating sentiment indicators can improve timing and risk management.

Conclusion

Market sentiment has a strong influence on trader behavior. Understanding the relationship between Fear, Greed, and trading decisions can help traders optimize strategy design, risk management, and profitability.