

PROJECT REPORT

Bitcoin Market Sentiment & Trader Behaviour Analysis

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1. Executive Summary

This report analyses the relationship between Bitcoin market sentiment (Fear & Greed Index) and historical trader behaviour. By isolating the top 10% of profitable traders ("Smart Money"), we identified clear behavioural divergences from the Retail crowd.

Key Findings:

- **The Exit Signal:** Smart Money aggressively reduces buying pressure during "Extreme Greed" (32% Buy Volume) while Retail continues to buy (51%), signalling a local top.
 - **Asset Rotation:** The asset @107 is highly profitable in Greed but generates losses in Fear. Conversely, HYPE acts as a hedge, performing best during market panic.
 - **Time Alpha:** Smart Money activity peaks at 4:00 AM IST (APAC Market Open), whereas Retail activity clusters around 1:00 AM IST, suggesting institutional traders execute on specific liquidity windows.
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2. Methodology

- **Data Sources:**
 - *Bitcoin Market Sentiment Dataset:* Daily "Fear & Greed" classification¹.
 - *Historical Trader Data:* Execution-level trade data including price, size, and PnL².
 - **Data Processing:** Timestamps were synchronized to merge daily sentiment with high-frequency trade data.
 - **"Smart Money" Definition:** Defined as the top 10% of unique accounts based on total realized Closed PnL. All other accounts are classified as "Retail"³.
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3. Market Overview: Behaviour by Sentiment

We analysed how the general market (aggregate of all traders) shifts behaviour across sentiment zones.

Metric	Extreme Fear	Fear	Neutral	Greed	Extreme Greed
Profitability (Avg. PnL)	\$71.02	\$112.62	\$71.19	\$85.40	\$130.20
Risk (Avg. Trade Size)	\$5,349	\$7,816	\$4,782	\$5,736	\$3,112
Activity (Trade Count)	21,400	61,837	37,686	50,303	39,992

Observations:

- 1. **Buying the Dip:** Risk appetite (Position Size) is highest during **"Fear"** (\$7,816/trade), indicating traders aggressively buy corrections⁴.
- 2. **Caution at Tops:** Surprisingly, position sizes are *lowest* during **"Extreme Greed"** (\$3,112/trade). While profitability per trade is high, traders size down to protect gains.



