

# 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" classification<sup>1</sup>.
    - *Historical Trader Data:* Execution-level trade data including price, size, and PnL<sup>2</sup>.
  - **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"<sup>3</sup>.
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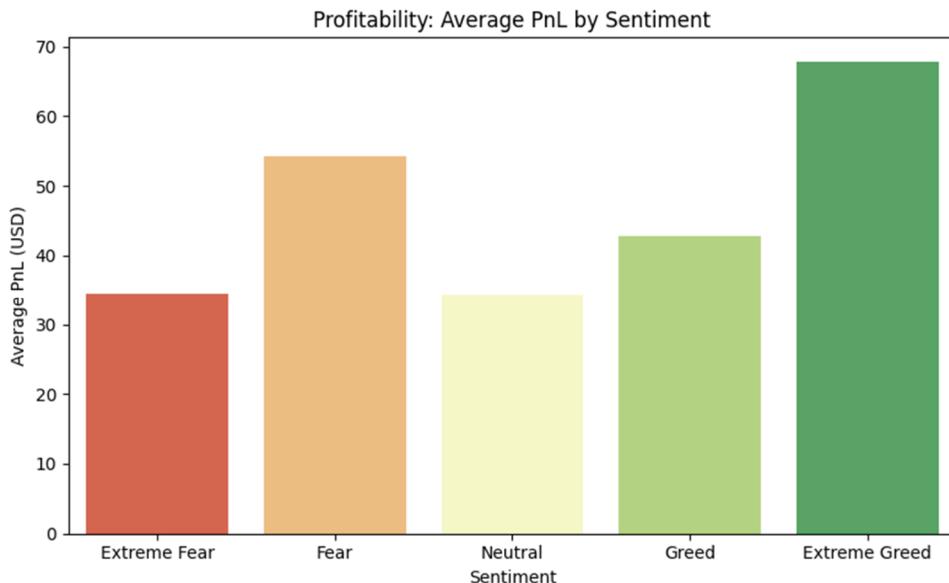
### 3. Market Overview: Behaviour by Sentiment

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

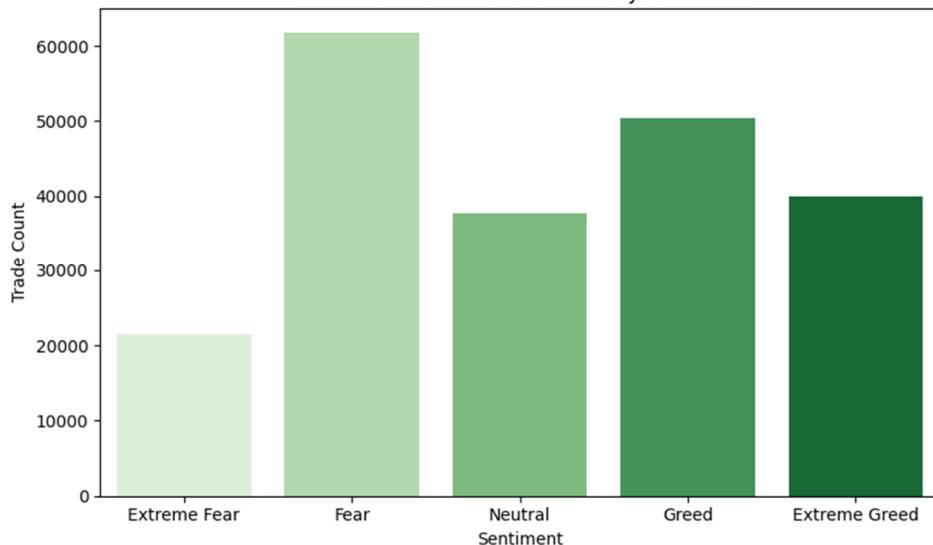
Metric	Extreme Fear	Fear	Neutral	Greed	Extreme Greed
<b>Profitability (Avg. PnL)</b>	\$71.02	<b>\$112.62</b>	\$71.19	\$85.40	<b>\$130.20</b>
<b>Risk (Avg. Trade Size)</b>	\$5,349	<b>\$7,816</b>	\$4,782	\$5,736	<b>\$3,112</b>
<b>Activity (Trade Count)</b>	21,400	<b>61,837</b>	37,686	50,303	39,992

#### Observations:

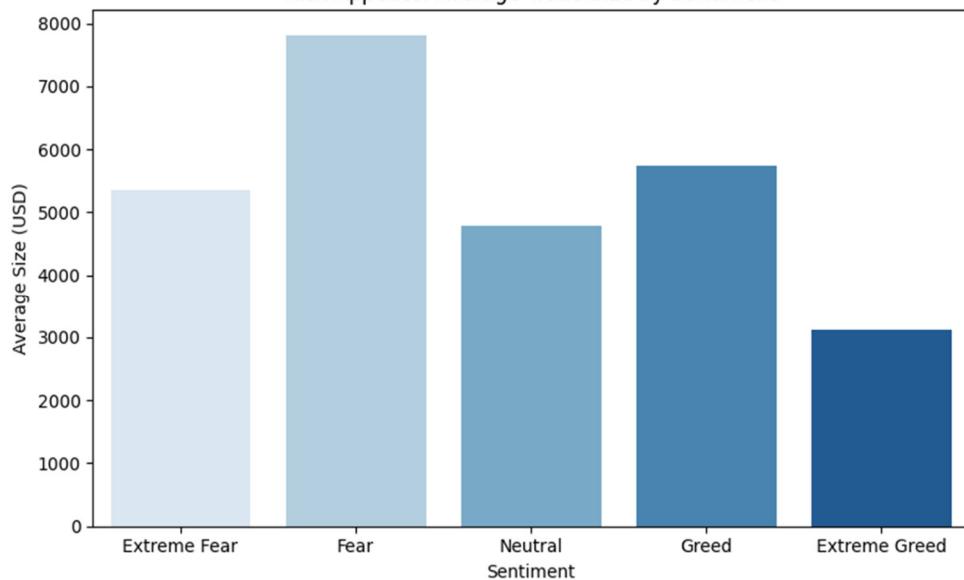
- Buying the Dip:** Risk appetite (Position Size) is highest during "**Fear**" (\$7,816/trade), indicating traders aggressively buy corrections<sup>4</sup>.
- Caution at Tops:** Surprisingly, position sizes are *lowest* during "**Extreme Greed**" (\$3,112/trade). While profitability per trade is high, traders size down to protect gains.



Volume: Total Number of Trades by Sentiment



Risk Appetite: Average Trade Size by Sentiment



Skill: Win Rate % by Sentiment

