

## 1. Introduction

This report analyzes the relationship between market sentiment (Fear, Greed, Neutral) and trader activity using two datasets:

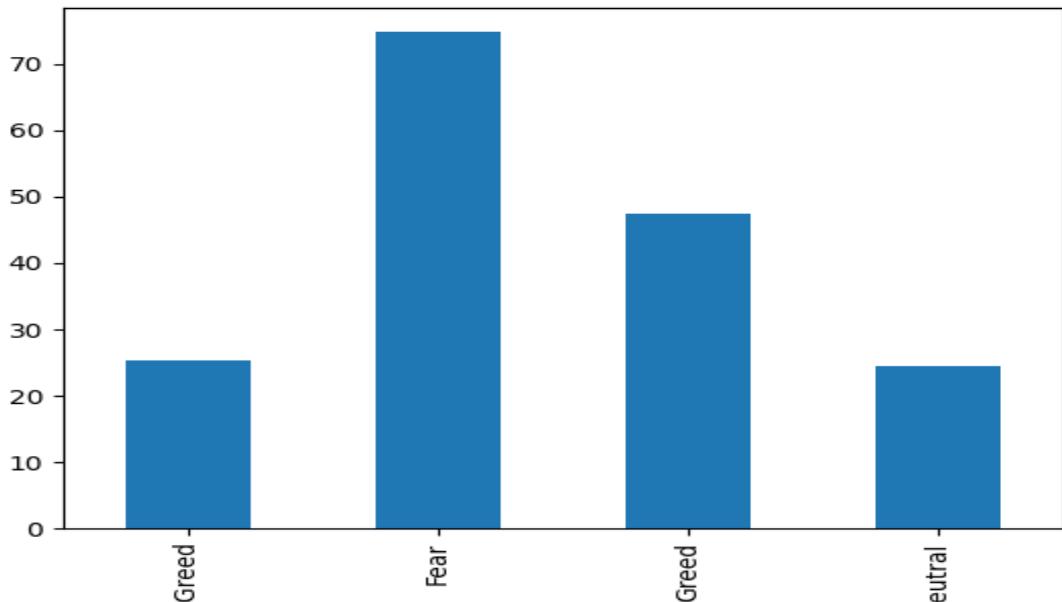
- Historical Trading Data
- Fear & Greed Index

## 2. Data Preparation

- Both datasets were loaded in Notebook 1.
- Timestamps were converted into date format.
- Historical trades were grouped by date.
- Data was merged with daily sentiment based on date.

## 3. Visual Outputs

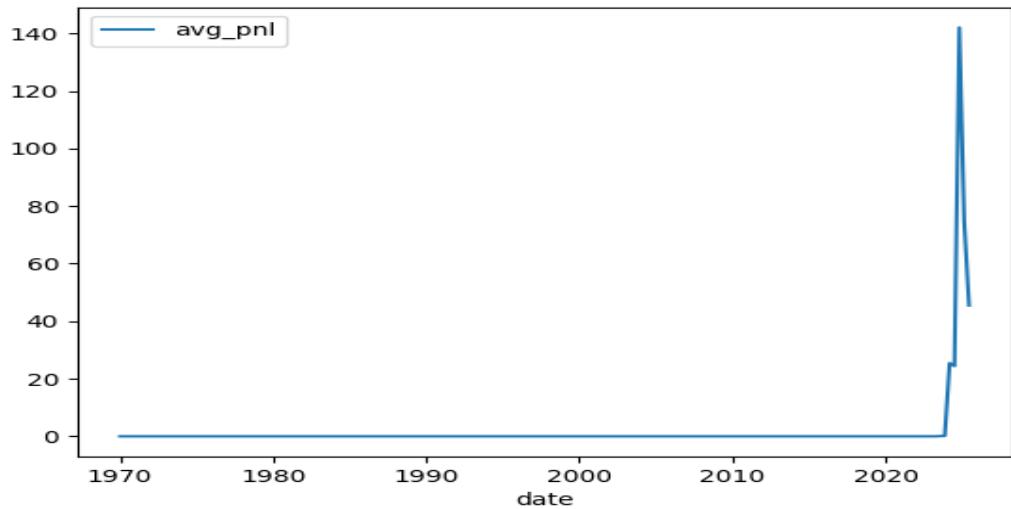
### Average PnL



Observation:

- Average PnL is highest during Fear periods.
- Greed and Neutral periods have lower average PnL.

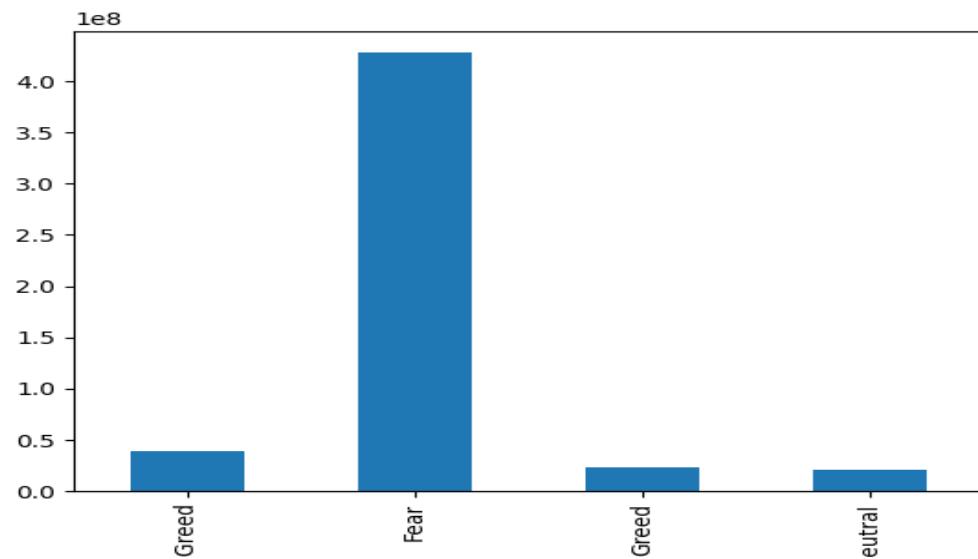
### Average PnL Over Time



Observation:

Average PnL also shows very small values for most days and increases sharply in recent dates.

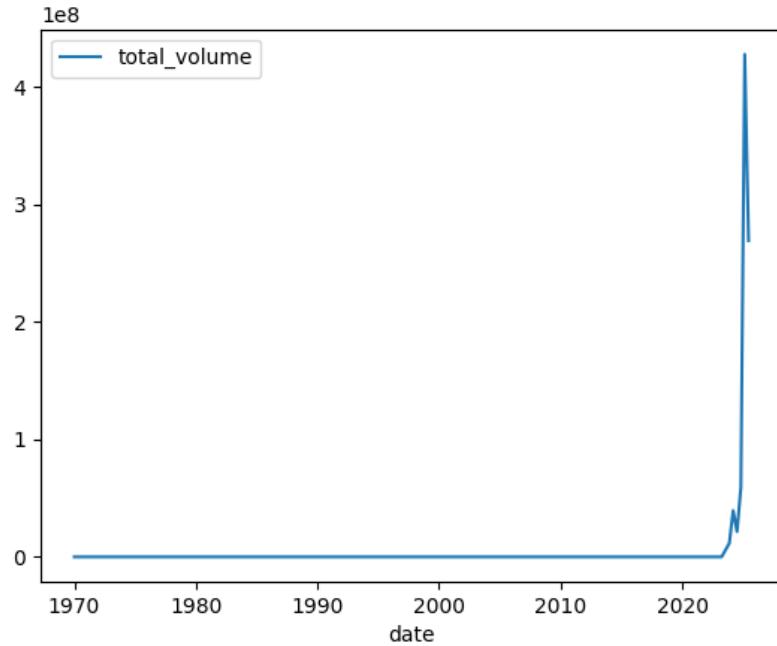
### Average Trading Volume



Observation:

- Fear days show the highest volume.
- Neutral and Greed days have lower volume compared to Fear.

## Trading Volume Over Time



Observation:

Volume stays almost flat for most of the period and grows significantly during recent dates.

## 4. Conclusion

The analysis suggests that market sentiment plays an important role in trading behavior.

Fear days show both higher activity and higher profitability.

This can help in building future trading strategies or automated models based on sentiment conditions.