Crypto Asset Quality Evaluation

by Lychee Ruoqian Xu
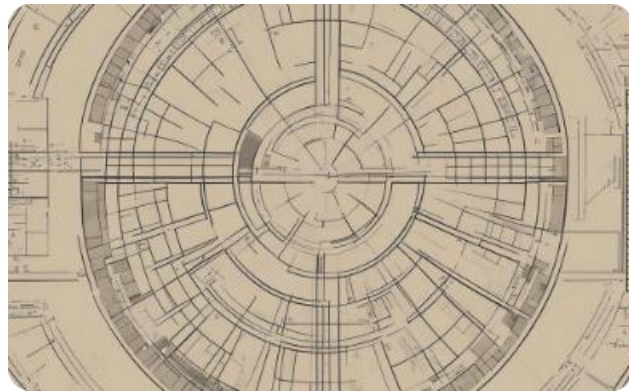
Token Quality Issues the Product Team May Encounter

Market Value Fluctuations

A sudden 50% decline in the token's market value can have substantial implications for investors and the project's credibility.

Liquidity Drainage

Rapid depletion of the token's liquidity pool can lead to adverse effects on trading and user confidence.

Extreme Price Volatility

Exceeding 80% price fluctuation within a minute poses significant risks for investors and project stability.

Assessment Metrics

Market Capitalization

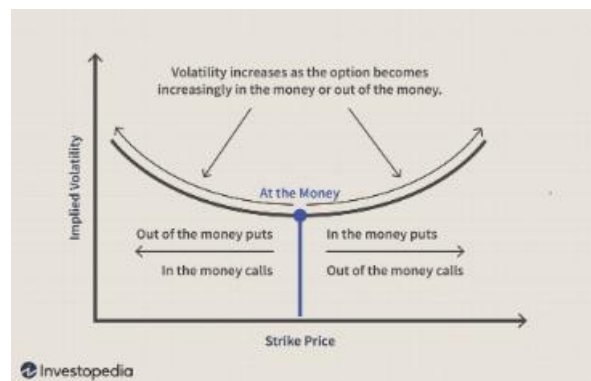Reflects the market size and investor recognition.

Indicator: MarketCap

Volume and Liquidity

Measures ease of trading and price impact.

Indicator: TVL, Trading Volume

Price Volatility

Reveals potential risk and returns.

Indicator: Daily Volatility, Daily Return Rate

How to use these metrics?

Market Capitalization

Reflects strong market positioning and user trust.

Liquidity

Indicates ease of trading and high user activity.

Price Volatility

Signals potential returns but carries high risk.

Data Collection – Sources

1 **Cryptocurrency Market Websites**

CoinMarketCap, CoinGecko

2 **Centralized Exchanges**

Binance, OKX

3 **Decentralized Exchanges**

Uniswap, Balancer, PancakeSwap

4 **On–Chain Data**

DeFiLlama, TokenTerminal

Analysis Methodology

1 — **Data Exploration Analysis**

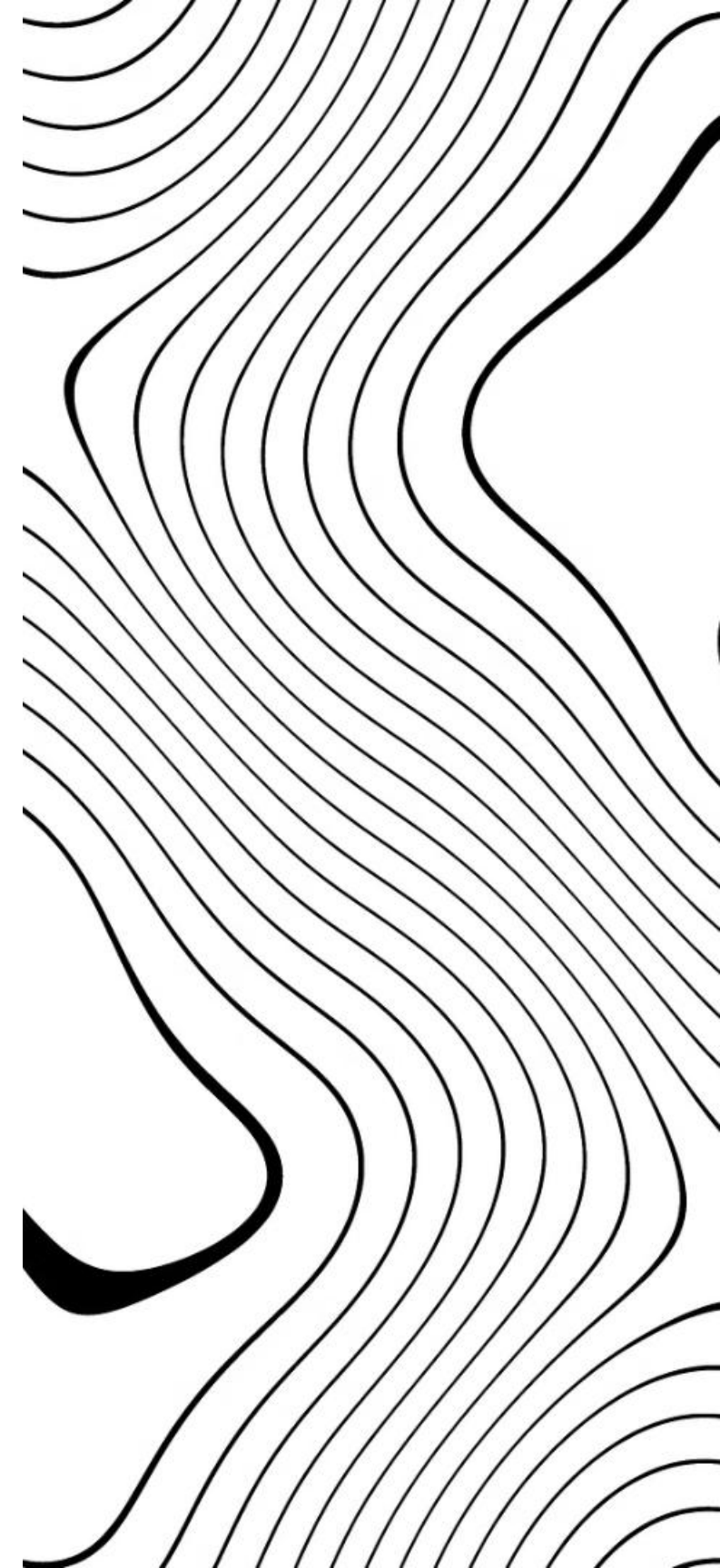Thorough exploration of available data sources and indicators.

2 — **Indicator Design and Analysis**

Development and assessment of metrics for quality evaluation.
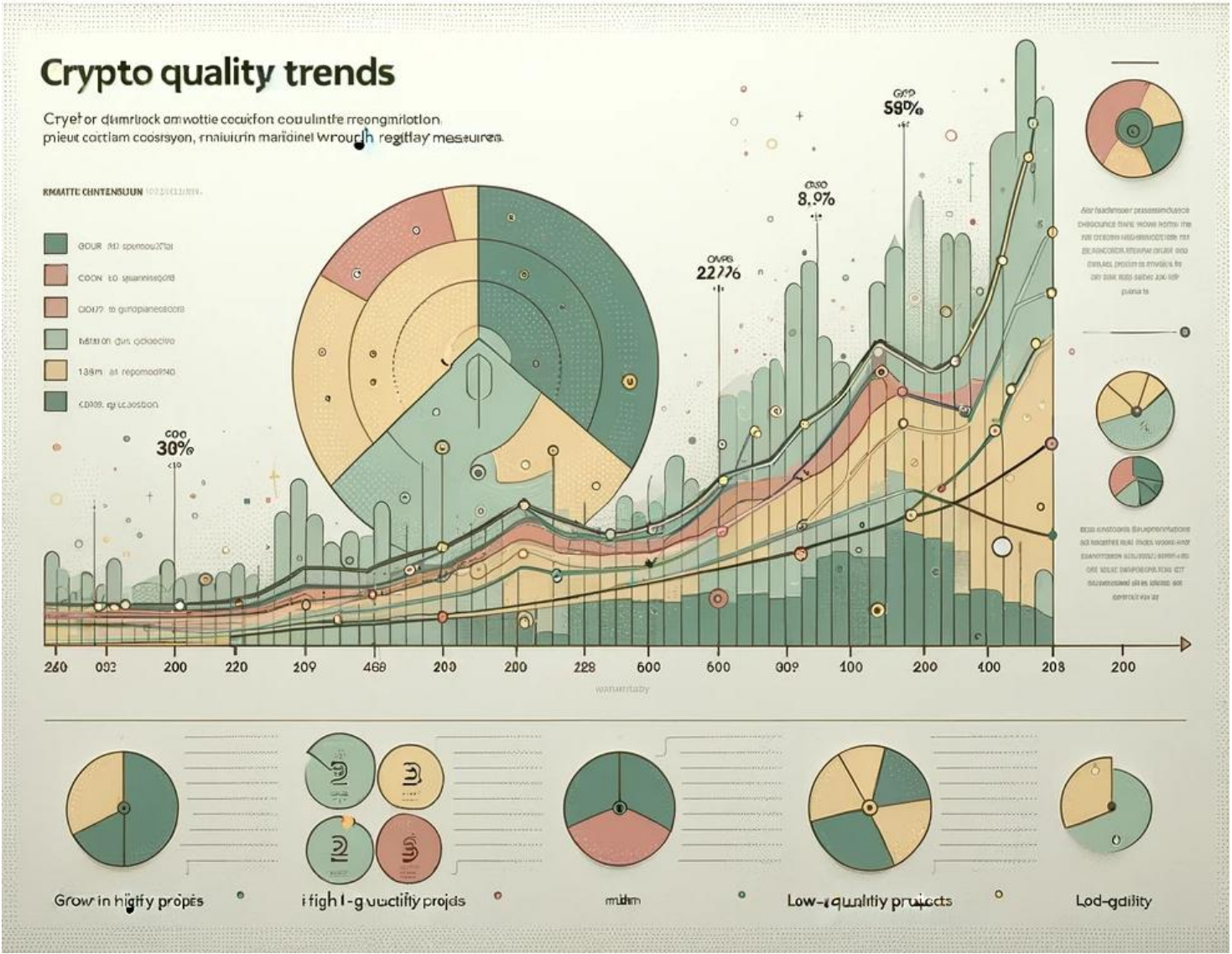
3 — **Hypothesis Testing**

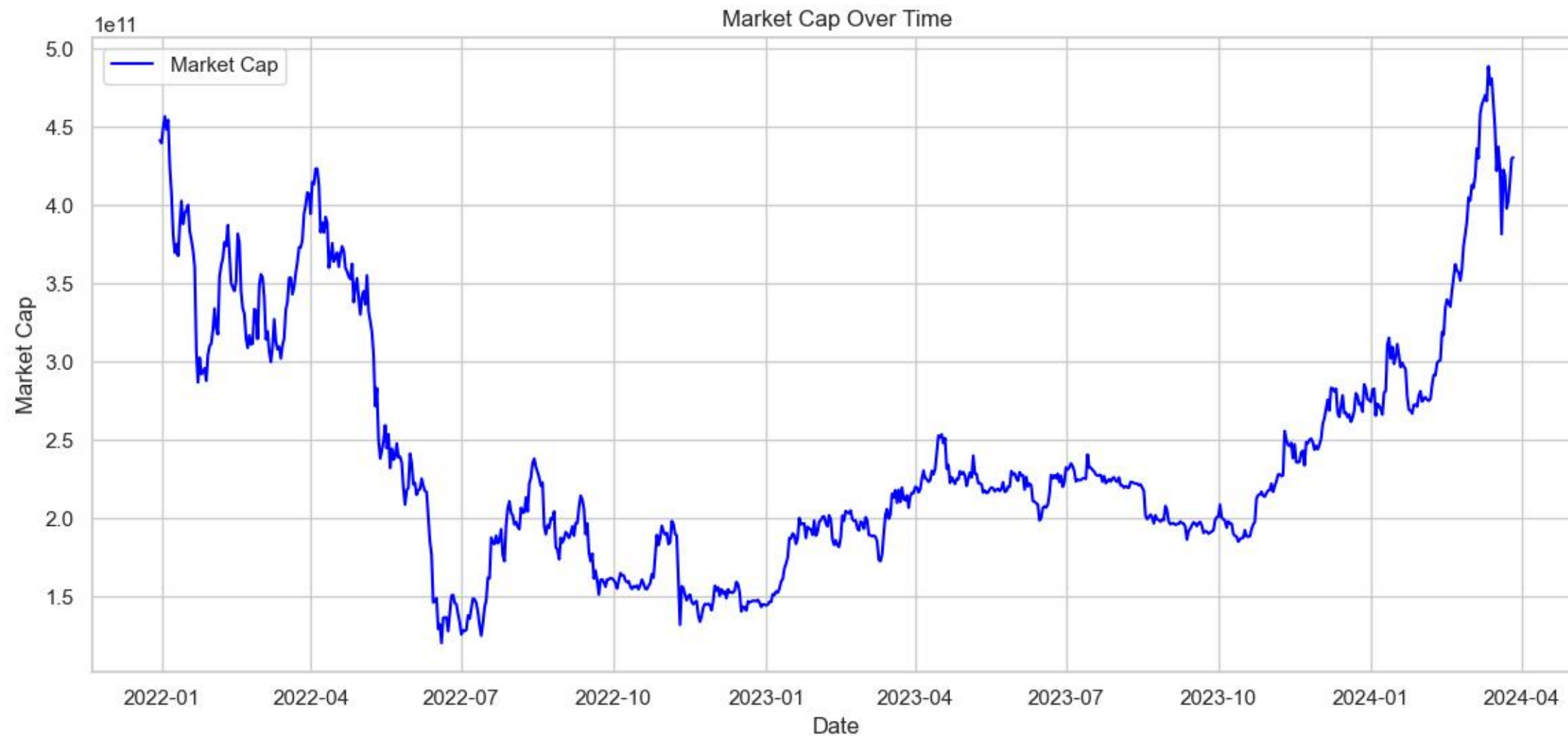Evaluating assumptions and hypotheses to validate quality indicators.

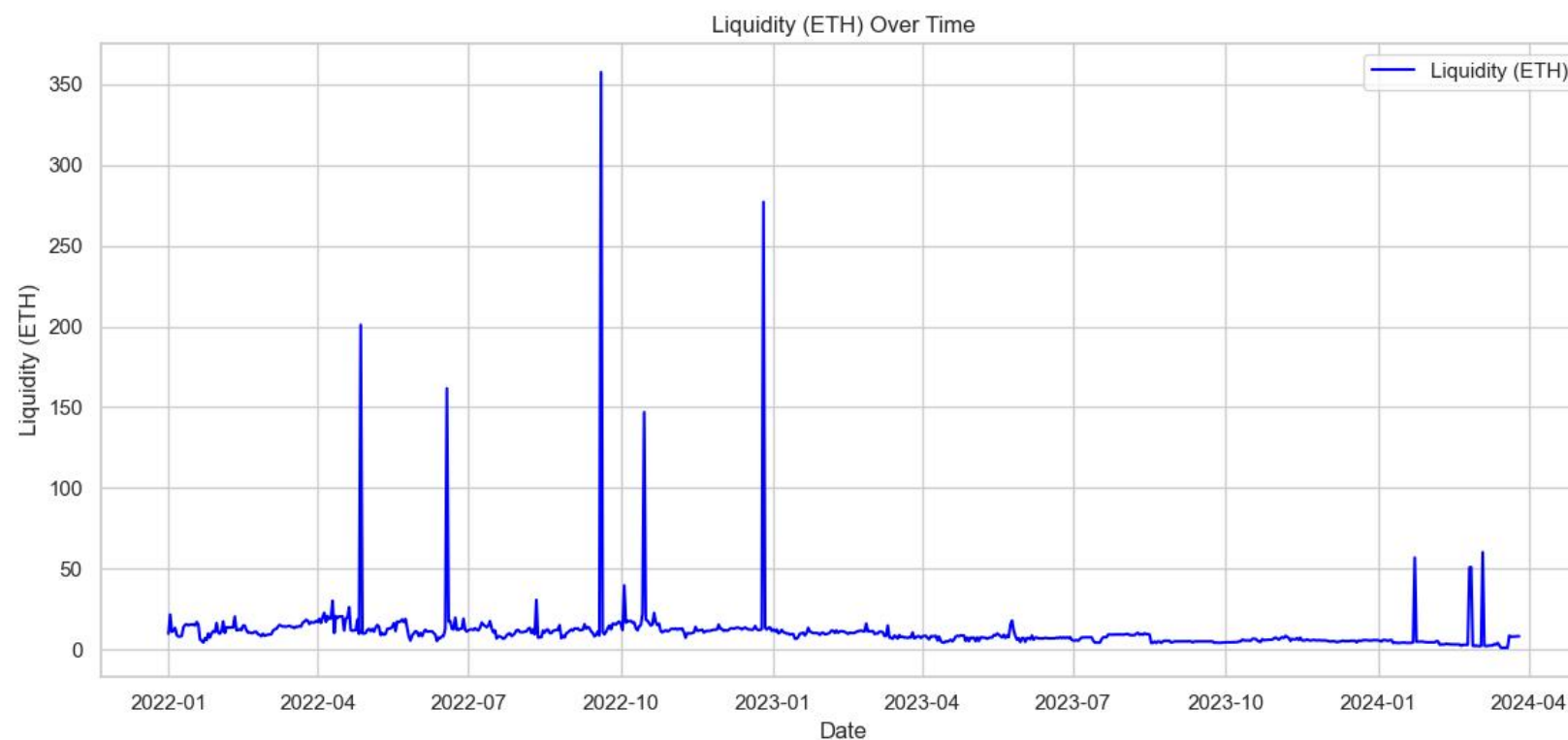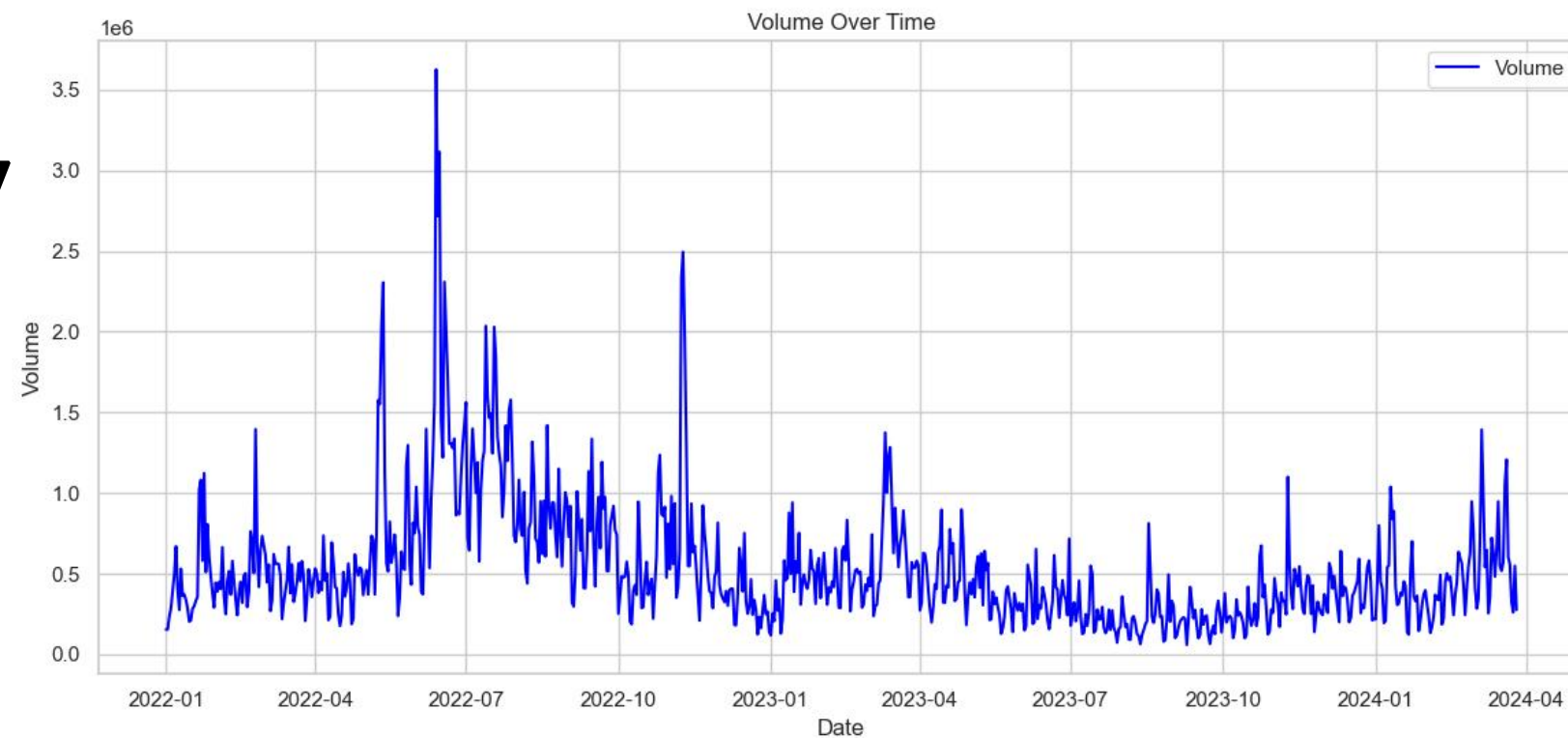# Quality Trends Visualization

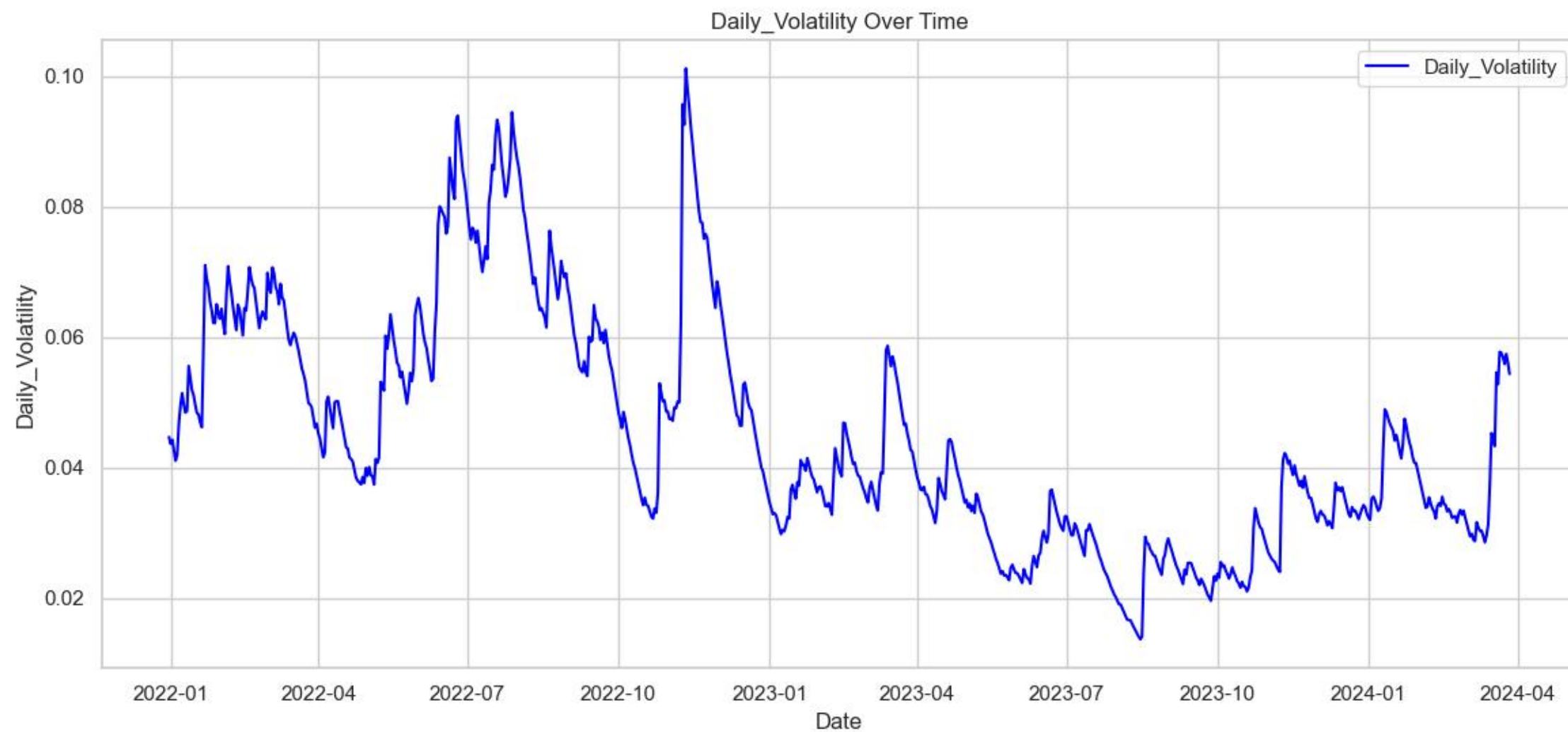**Let ETH be an example ...**

Market Capitalization – Example ETH

Market Cap Over Time

Volume and Liquidity

Example ETH

Price Volatility – Example ETH

Combined Indicator – Example ETH
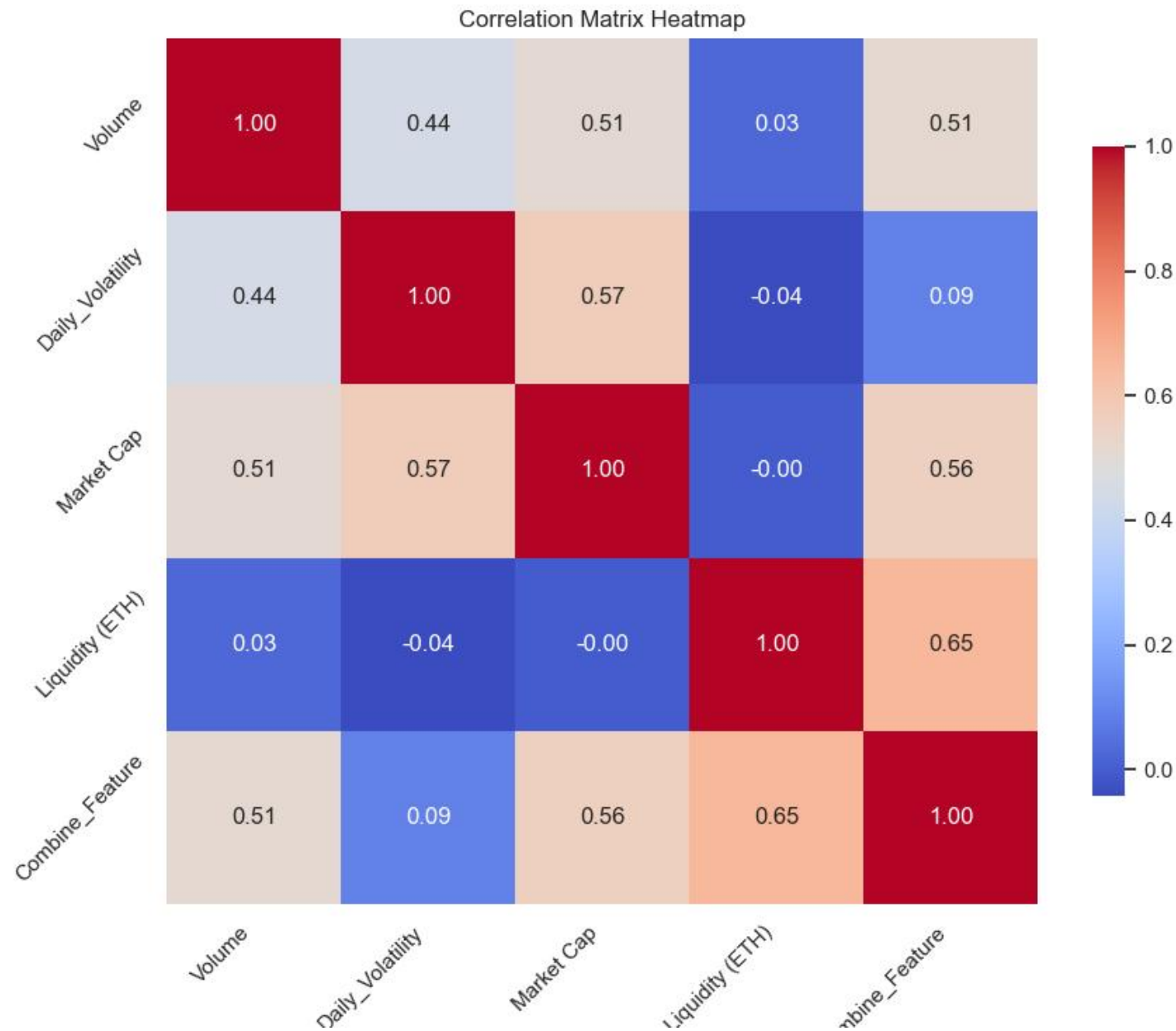

Combine_Feature Over Time
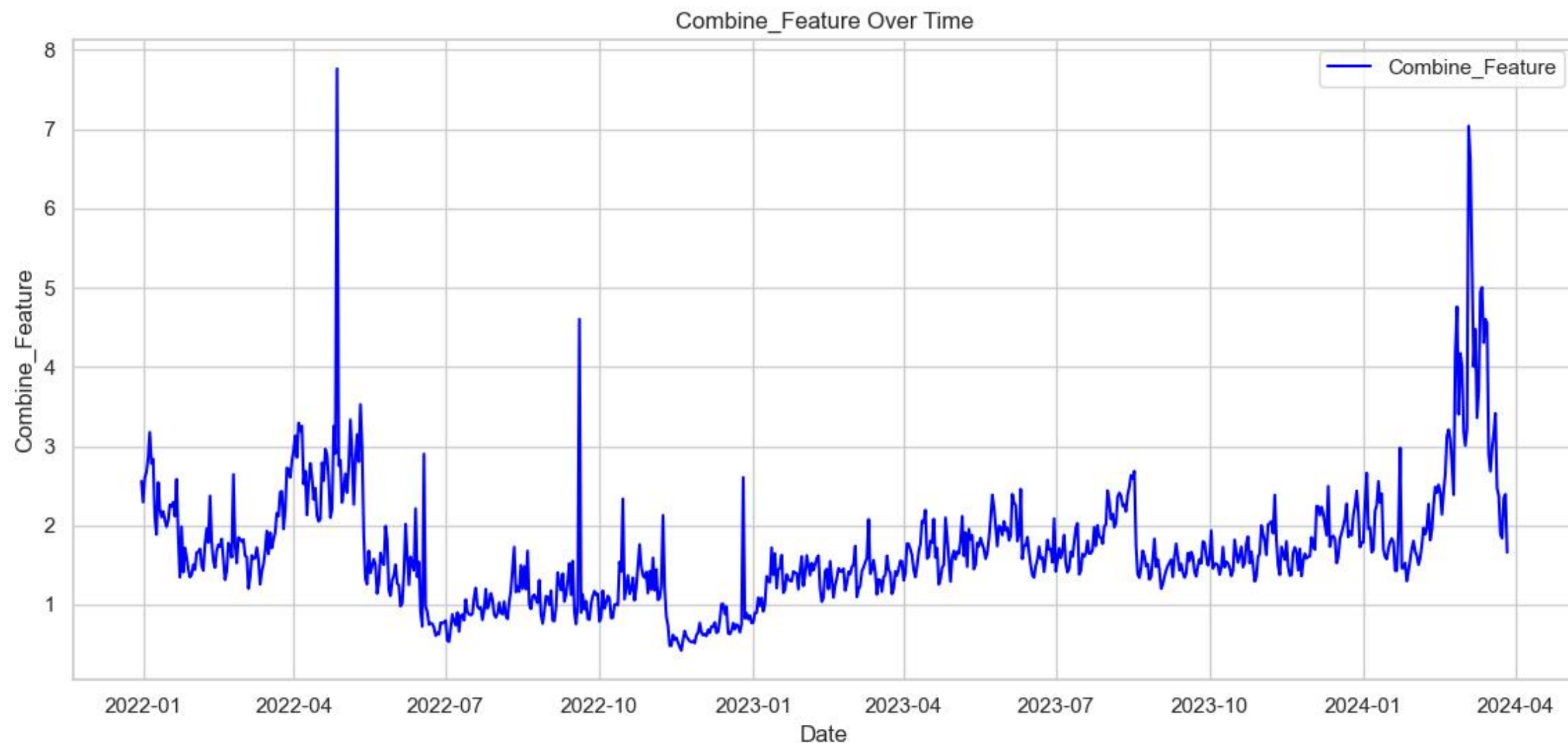
df_scaled['Combine_Feature'] = df_scaled['Volume'] * df_scaled['Market Cap'] * df_scaled['Liquidity (ETH)'] / df_scaled['Daily_Volatility']

Correlation Matrix In the past year

Correlation Matrix Heatmap

Solutions for Token Quality Changes

1

Market Capitalization Analysis

Long–term trend observation, comparative analysis, and strategy adjustment.

2

Liquidity Analysis

Monitoring trading volume, exchange distribution, and enhancing liquidity.

3

Price Volatility Analysis

Monitoring volatility, managing risk, and building confidence.

4

Comprehensive Strategy

Data–driven decision making, dynamic adjustment, continuous monitoring, and evaluation.

Future Work

Trend Analysis

Continuous analysis and monitoring of quality trends and market dynamics.

Enhancement Strategies

Developing and implementing strategies to enhance token quality and market stability.

Growth Opportunities

Exploring opportunities for sustained growth and project expansion.

Predictive Models

Offering insights and forecasts in the event of unexpected price fluctuations.