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## Abstract

This study explores the public sentiment surrounding the FTX incident, utilizing advanced sentiment analysis and topic modeling techniques to analyze a dataset of 300,000 tweets. The research aims to uncover how public perceptions, expressed through social media, correlate with market dynamics during the three phases of the FTX crisis: Before, During, and After the incident. Sentiment analysis revealed significant shifts from positive to predominantly negative sentiments as the crisis unfolded, reflecting the public's response to unfolding events. Topic modeling identified key themes such as financial downfall, geopolitical financial controversies, digital finance innovations, specific crisis events, and regulatory aftermaths, offering insights into the public's concerns and discussions. The regression analysis further demonstrated the impact of past sentiments and market performance on future behavior, emphasizing the role of sentiment analysis as a predictive tool in financial markets. This paper contributes to the understanding of the interplay between public sentiment and market reactions, highlighting the potential of social media as a real-time barometer of public mood in financial contexts.

## Keywords:

Sentiment Analysis, Topic Modeling, FTX Incident, Cryptocurrency Markets, Social Media Analytics