

Analysis of the tweets of crypto currency investors and followers before and after the ‘FTX collapse’ (1466 words)

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1.Introduction and Literature

The cryptocurrency trading changed the dynamics of the trading and investing game by leaps and bounds, one it being active 24/7, unlike the traditional stock exchange markets and other due to its unstable and volatile nature, even with the most appropriate updates and information about the market unexpected events such as one tweet from a famous leader can change the value of a crypto drastically. One such event in the recent times is the downfall of one the biggest players in the crypto exchange market – FTX by Alameda research. Sam Bankman-Fried the CEO of both Alameda and FTX persuaded some of the world’s most renowned investors, including Sequoia Capital, hedge fund manager Paul Tudor Jones, the Ontario Teacher’s Pension Plan to inject money in his business, ironically FTX filed for bankruptcy on Nov. 11, 2022, after a surge of customer withdrawals earlier in the month. Then-CEO Sam Bankman-Fried admitted that the company didn’t have sufficient assets in reserve to meet customer demand ^[1]. Twitter is the most used social media platform to spread news and updates about the crypto, studying the tweets from the users before and after the FTX crash tells us the overall high-level sentiment of this crash on the crypto market. the reason behind the downfall is irrelevant to the context of this paper.

Previous research has explored the role of social media in shaping the attitudes of cryptocurrency investors. For example, a study by Kiran Kumar Bandeli et al. (2019) analyzed the sentiment of tweets related to Bitcoin and found that positive sentiment was strongly correlated with increases in the price of the cryptocurrency. Similarly, a study by Xiong et al. (2020) found that social media sentiment can be a useful indicator of cryptocurrency price movements, although it is not

always a reliable predictor. These studies suggest that analyzing the tweets of cryptocurrency investors and followers can provide valuable insights into the cryptocurrency market and its dynamics.

However, there is limited research on the impact of specific events on the behavior and attitudes of cryptocurrency investors and followers, especially in relation to the actions of major players in the market like Alameda and FTX. By focusing specifically on the FTX collapse and analyzing the tweets of cryptocurrency investors and followers before and after this event, our study aims to fill this gap in the literature and provide a more comprehensive understanding of how social media can influence on crypto currency markets by answering.

2.Research Questions

- 1)What is the sentiment in the tweets of Bitcoin investors/enthusiasts before and after the FTX collapse/Bankruptcy.
- 2) Is the crypto world going to recover from this scam? and are we prone to more of such scams in the future?

3. Methods

3.1 Data

Data for this study was collected from Twitter in two separate time periods. The first was approximately six months prior to the cryptocurrency crash (Feb’22), and the second period was approximately till one month after the FTX company declaring bankruptcy (till Dec’22). The FTX crash refers to the technical issues that occurred on the FTX cryptocurrency exchange in June 2021, which caused the exchange to go offline for several hours. By collecting data from these two time periods, the study aims to analyze the changes in sentiment, topics, and other characteristics of tweets related to cryptocurrency investing.

3.2 Analysis

The Tweets collected included either one these hashtags: Bitcoin, cryptocurrency/crypto, FTX, Alameda, FTT. The author used the ‘Coding Technique’ which involves systematically categorizing and coding the content, which is then analyzed to identify patterns, trends, and themes on the collected tweets, and labelled the tweets into the following categories based on the sentiment observed by author into: ‘Anger’, ‘Personal Experience’, ‘Confident / Happy’, ‘Fear/Sad’, ‘Junk/Spam’. Definitions for each category are given in the table 3.1.

Table 3.1.

<i>Label</i>	<i>Definition</i>
1)Anger	Tweet expressing annoyance or vexation due to the market disruption.
2)Personal Experience	Tweet expressing neither of the emotions/sentiments but just is the personal portfolio or loss/profit made in the market.
3) 'Confident / Happy'	Tweet expressing positive, contended sentiment.
4) Fear/Sad	Tweet expressing panic/distress due to the crash.
5) Junk/Spam	Tweet not related to the topic of the Author's concern.

Based on the frequencies of the labels in the collected data set before and after the crash, we can get a high-level grasp of what is the sentiment and impact on the attitude of the investors and the followers.

The ‘Personal experience’ and the ‘Junk/spam’ labels are not considered in the analysis as they don’t add any value to our research.

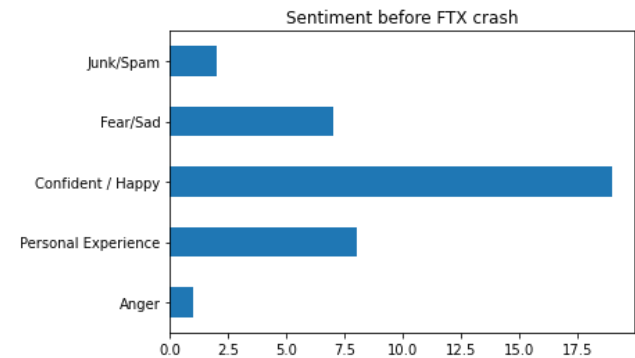
The frequency table is given in the table 3.2.

Table 3.2.

Label	Count
Anger	21
Confident / Happy	24
Fear/Sad	20

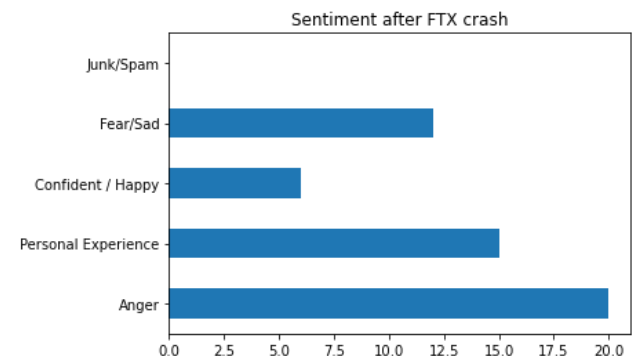
4. Results and Discussions

Performing the coding analysis on the tweets collected before and after the FTX crash it is evident that the sentiment is mostly positive before the crash, though there is a dip^[2] in the Bitcoin value mid-June most of the investors treated this dip as an opportunity to invest more and most likely expecting good returns in the long run.

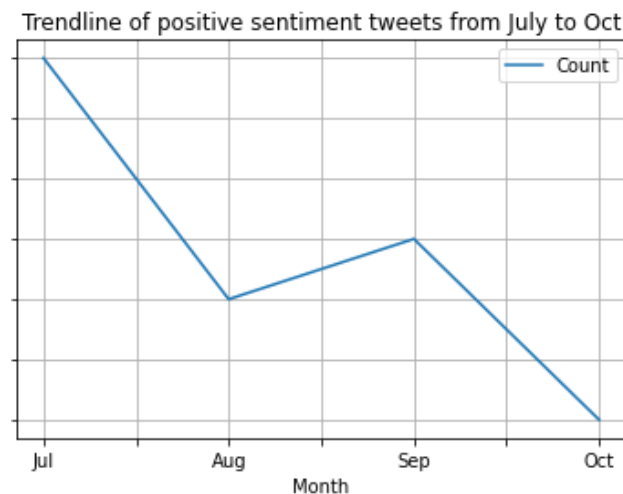


From the above bar plot we can observe the ‘negative’ sentiment is quite low in the tweets.

As one would expect the Bitcoin/Crypto sentiment got more negative immediately after the crash as we can see in the plot below.



One notable finding in the analysis is that investors were able to sense something is not going right with the FTX a month before the FTX crash and, this led to a negative trend of the ‘positive’ tweets’ month by month, this is evident from the trendline plot below.



We can observe a major dip in the ‘positive’ sentiment tweets from around a month prior to the crash, we can also witness the power of social media and the news that spreads through it, this can be alarming on the other hand as well as there is no measure of the ‘mis information’ spread in the social media and one has to be aware and take the best decisions consulting more than one source of information.

Cryptocurrencies can be a high-risk, high-reward endeavor. While there is the potential for significant returns, there are also several risks that investors should be aware of. It is important for individuals to be careful when investing in cryptocurrencies and to do their due diligence before making any investment decisions. Some important things to consider include:

1. **Research:** It is crucial for investors to conduct thorough research on any cryptocurrency they are considering investing in. This includes researching the development team behind the project, the technology being used, and any potential use cases for the cryptocurrency.
2. **Volatility:** Cryptocurrencies are known for their high levels of volatility, which means that their value can fluctuate rapidly and

dramatically. Investors should be prepared for this volatility and should only invest what they can afford to lose.

3. **Security:** Cryptocurrencies can be vulnerable to hacking and theft, and investors should take steps to protect their investments, such as using a secure wallet and following best practices for online security.
4. **Regulation:** Cryptocurrencies are still largely unregulated in many parts of the world, which means that there is the potential for scams and fraudulent activity. Investors should be cautious of any investment opportunities that sound too good to be true and should only invest in projects that are transparent and reputable.

One important lesson one could learn based on the events we are witnessing in the investments in crypto currency and its highly unstable valuations it is always suggested to invest only what one can afford to lose.

5. Limitations & Future Directions

We were able to understand the very high-level sentiment of how the crash of FTX and Alameda affected the sentiment among the investors with the data collected from Twitter, one limitation of this study is the relatively small sample size of tweets collected for analysis. While efforts were made to ensure that the sample was representative and covered a wide range of dates and times, the fact remains that only around 60 tweets were included in the analysis. This limited sample size may affect the generalizability of the findings, and it is possible that a larger sample size would yield different results. Additionally, the small sample size may have limited the ability to detect more nuanced patterns or trends in the data.

While every effort was made to ensure that the sample was as representative as possible, the small size of the sample means that caution should be exercised in interpreting the results and generalizing them to a broader population of cryptocurrency investors and followers. Future studies with larger sample sizes including a greater number of labels, analyzing how this affected the investors in different continents, different economies etc. The Author would leave this for the future directions this research could lead.

6. References

- [1] <https://www.investopedia.com/what-went-wrong-with-ftx-6828447#:~:text=FTX%20filed%20for%20bankruptcy%20on,reserve%20to%20meet%20customer%20demand.>
- [2] <https://www.google.com/search?q=bitcoin+price&oq=bitco&aqs=chrome.69i59l2j69i57j69i60l3.1593j0j7&sourceid=chrome&ie=UTF-8>
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