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Social Media and Cryptocurrencies: A Mining Approach

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Cryptocurrencies have made a splash as mainstream financial instruments ever since they were launched in 2009 (Duggan 2022). Bitcoin, perhaps the earliest and most well-known of the cryptocurrencies, was instrumental in changing the landscape of financial and currency markets. Financial market operations are shaped by participants' social cognitions and behaviors (in short, SCB). The same extends to the world of cryptocurrencies. Customer sentiments, social cognition, and behaviors are evident in several social media platforms. In these platforms users gather to exchange views, ideas, and expertise regarding cryptocurrencies. The focus our study is to examine the role of SCB on cryptocurrency trading, and vice versa.

Cryptocurrency is encrypted, and decentralized monetary medium based on blockchain technology. Dynamics of cryptocurrency market are found to be related to SCB of individual users and traders. Diverse emotions can predict Bitcoin trading volume and return (Ahn et al., 2021). Sentiments, as reflected from public media messages, are found to be related to investment decisions in cryptocurrency markets: the dispersion of return is associated with an increase of optimistic news, signaling a convergence of investors' beliefs (Caferra, 2020). Grgic et al. (2021) have found that emotions with respect to perceived control are found to drive risk predictability in the cryptocurrency market. Momtaz (2021) indicates that emotions identified from corporate stakeholders can impact the evaluation of business in financial markets.

In our research we plan to analyze postings in from two popular social media platforms using data mining techniques such as sentiment analysis. Using the SCB derived from our analysis of social media activity we will examine its effect on cryptocurrency price, and vice versa.

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