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The Role of Bitcoin Newsfeed on the Cryptocurrency Stocks Prices: The Case of Marathon Digital Holdings, Inc.

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Introduction

In the financial and business markets, fundamental and technical analyses are considered crucial for investments decisions. Fundamental analysis is often used for long-term investments, whereas technical analysis focuses more on short-term trades. Nevertheless, in today's high-speed digital age, both types may be insufficient for effective decision-making initiatives or achieving the desired outcomes. We are living in a data-driven world in which the speed, accuracy, and quality of the collected information/data are the most significant and prevailing. This article sheds light on the importance of news feeds in manipulating the prices of stocks and currencies. Specifically, this article centers on how the stock price of Marathon Digital Holdings, Inc. is largely dependent on the news feeds of Bitcoin rather than on fundamental or technical approaches.

Technology is a powerful disruptive tool that has transformed numerous industries from manual processing to digitalization to achieve organizational objectives and goals. Technology is changing the financial world and has resulted in the emergence of the FinTech industry. This industry has achieved high visibility and significance during the Covid-19 virus outbreak. It is not surprising that multiple other sectors, such as transportation, healthcare, banking, retail, and education, have grown dependent on FinTech services (Kaur and Lashkari, 2021).

FinTech firms offer a wide range of innovative and novel strategies to improve financial transactions, processes, products, and services. They provide technological solutions to finance-related problems, concerns, and issues (Kaur and Lashkari, 2021). Furthermore, they are gradually replacing the traditional financial and banking services by creating, for instance, e-wallets/digital wallets.

Nevertheless, there are several complications! First, on the one hand, the FinTech industry is rapidly developing and reaching higher levels of sophistication. On the other hand, it has become the most vulnerable domain in

terms of digital security. The rise of FinTech has been followed by a surge in cyber-attacks, frauds, and other security concerns. Such attacks may lead to the depletion of financial inputs and resources. Second, the concept of FinTech is somehow threatening the sustainability of traditional banks and financial services through the adoption of blockchain technology. Why? Because using blockchain technology, traditional monetary means/systems (cash, credit cards, checks) are being replaced and substituted by digital currencies (cryptocurrencies) (e.g., Bitcoin, Ethereum, etc.). Such a change is drastically reshaping the markets and businesses and thereby making money obsolete. However, like traditional investments and currencies trading, digital currencies have been witnessing extreme fluctuations and volatility in the trading markets, leading to inconsistencies and anomalies in pricing patterns.

To briefly elaborate on the above concept, Figure 1 shows the drastic shift in the trading price of Bitcoin across a 1-year interval. In terms of technical analysis, trading and investing in cryptocurrencies are very much like other currencies or commodities, in which supply and demand determine price. Investors or traders may perceive their trading transactions either for the long-term or for the short-term (speculative trading).

Figure 1. Bitcoin Price Volatility



Source: <https://coinmarketcap.com/currencies/bitcoin/>

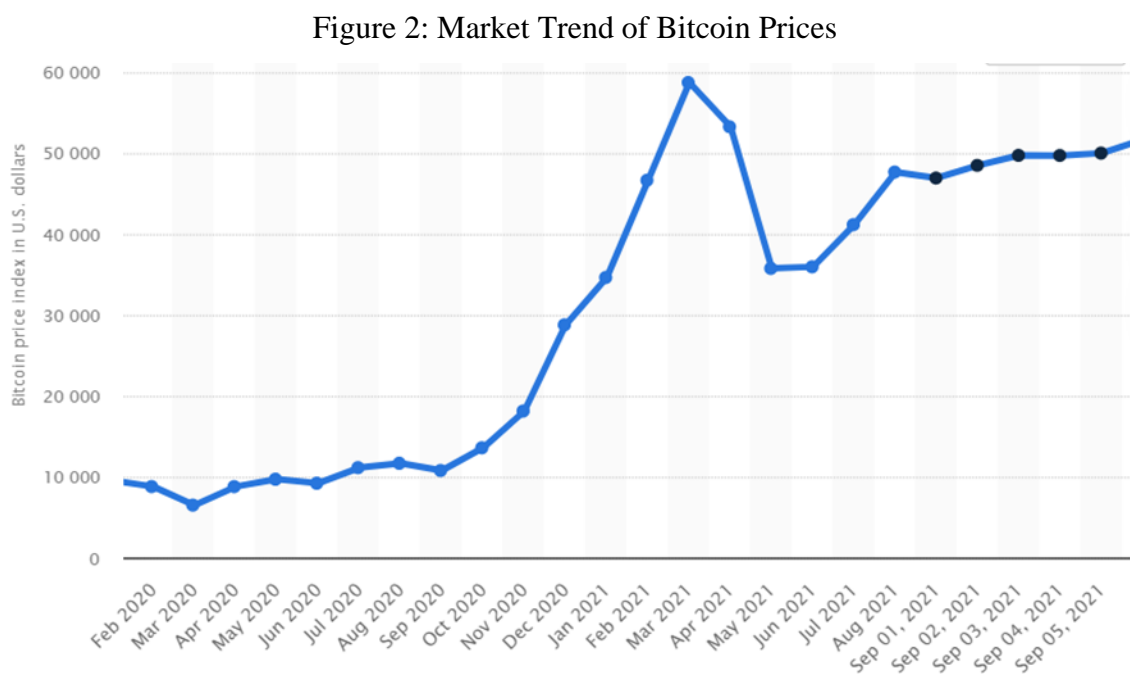
The case study: Marathon Digital Holdings, Inc.

The price of Bitcoin has risen to exceed the \$50,000 mark for the first time, and the crypto-currency markets continue to recover after their recent decline. Despite being still \$14,000 lower than its highest mark ever, bitcoin recently witnessed a surge in the price (see Figure 2). This surge has been due to multiple fundamental and recent breakthroughs (Crypto AM, 2021), such as Elon Musk's wave of institutional investments in cryptocurrencies

and JP Morgan and Wells Fargo expanding their offerings. The Securities & Exchange Commission allowing investments in Bitcoin futures has also contributed to the price surge.

Nevertheless, such news criteria are not more significant than the earlier news of the previous years. Therefore, the fundamentals may only explain slight price changes rather than drastic shifts in the prices.

Similarly, from a technical analysis perspective, Figure 2 shows a descending price line for bitcoin from mid March 2021 until mid May 2021. However, in the mid June 2021, it started to increase. There was certainly no reason for such a sudden rise, especially since technical analysis may not effectively explain the motives behind it.



Source: <https://www.statista.com/statistics/326707/bitcoin-price-index/>

Now, shifting to the Marathon Digital Holdings company, which is a digital asset technology company that mines cryptocurrencies with a focus on the blockchain ecosystem and the generation of digital assets. It is one of the largest Bitcoin mining companies in North America. Marathon helps gain exposure to Bitcoin in the portfolio without dealing with the complications of holding the asset directly. From a technical perspective, it is evident (see Figure 3) that the company's prices followed a descending (or at least a steady) pattern or approach during the last two months of 2020. However, the prices witnessed an extreme volatility, and the prices increased in 2021 from almost \$2 in Nov 2020 to \$44 in September 2021.

Figure 3: Marathon Digital Holdings' Price Chart



(Source: Yahoo! Finance; <https://finance.yahoo.com/quote/MARA/>)

What drove such a boost and optimism in the market? Multiple reasons may have led to this outcome: low-interest rates, zero charges/commissions, anticipated rise in cashflows, availability of money, expected introduction of innovation, increase of active users, and introducing new perspectives within cryptocurrencies (Castillo, 2021). Figure 4 shows the income statement of Marathon Digital Holdings company. We can clearly see that Marathon Digital Holdings' gross profit, operating income, and net income were negative in all four years. So, how did the share price increase when fundamental analysis showed otherwise?

Figure 4. Marathon Digital Holdings Income Statement

Income Statement All numbers in thousands

Breakdown	TTM	12/30/2020	12/30/2019	12/30/2018	12/30/2017
> Total Revenue	41,953	4,357	1,185	1,562	519,622
Cost of Revenue	74,432	11,731	3,958	5,336	3,471
Gross Profit	-32,479	-7,374	-2,772	-3,774	-2,951
> Operating Expense	4,293	1,588	1,019	6,080	8,529
Operating Income	-36,772	-8,962	-3,791	-9,854	-11,480
> Net Non Operating Interest Inc...	338,765	-2,641	-18,264	-2,357	-4,868
> Other Income Expense	3,676	-1,483	292,534	-534,262	-15,089
Pretax Income	-32,757	-10,448	-3,517	-12,745	-31,438
Tax Provision	0	0	0	69,134	-103,952
> Net Income Common Stockhold...	-32,757	-10,448	-3,517	-12,814	-31,334

(Source: <https://finance.yahoo.com/quote/MARA/financials/>)

Therefore, should the price further increase? To fully comprehend the analysis, Figure 5 presents the stock price data based on a monthly frequency. From the beginning of October 2020 till December 2020, there was almost no change, and the price was close to \$5. Then the price goes up unreasonably fast and by January 2021, you can see that it increased to \$13. This is a huge increase. As such, from a technical perspective, selling of the shares should take place; thus, expecting the price to decrease after such a surge for no specific reason.

Figure 5. Marathon Digital Holdings' Historical Prices

Time Period: Sep 06, 2020 - Sep 06, 2021		Show: Historical Prices		Frequency: Monthly		Apply
Currency in USD Download						
Date	Open	High	Low	Close*	Adj Close**	Volume
Sep 03, 2021	43.71	44.97	43.22	43.41	43.41	12,728,286
Sep 01, 2021	41.05	44.97	40.48	43.41	43.41	33,194,900
Aug 01, 2021	27.63	41.58	26.20	40.59	40.59	230,001,300
Jul 01, 2021	31.37	31.55	20.61	27.63	27.63	134,562,700
Jun 01, 2021	24.54	33.72	21.54	31.37	31.37	273,395,600
May 01, 2021	38.20	39.68	18.32	24.77	24.77	396,048,000
Apr 01, 2021	48.88	57.75	28.36	36.78	36.78	512,717,900
Mar 01, 2021	34.22	50.21	24.11	48.02	48.02	449,074,400
Feb 01, 2021	20.58	49.41	19.35	30.15	30.15	573,219,200
Jan 01, 2021	12.48	28.37	10.53	20.74	20.74	1,028,680,200
Dec 01, 2020	5.86	14.66	4.50	10.44	10.44	802,228,500
Nov 01, 2020	2.12	6.28	2.06	6.28	6.28	488,601,500
Oct 01, 2020	2.01	3.11	1.82	2.16	2.16	243,701,600

(Source: <https://finance.yahoo.com/quote/MARA/history?p=MARA>)

Nevertheless, on the contrary, the price witnessed within one month an increase to \$20.74 in end January and further doubling of its value to \$48.02 in end March, before settling on \$43.41 on September 3, 2021. Thus, an increase of 800% of shares of Marathon Digital Holdings took place in the first quarter of 2021 (Quast, 2021; Globe Newswire, 2021). In other words, the price kept on charging upwards, knowingly that Marathon has a negative profitability for four consecutive years.

Therefore, several questions start to arise concerning the reasons behind such a drastic shift (increase) in the price, for instance: Is the share price of Marathon affected by the price of bitcoin? Are prices unrelated to the company's efficiency and effectiveness? Is it ethical or simply unregulated? How are bitcoin prices manipulated to start with?

In a study conducted by Nitayaprapha (2021), the price of bitcoin (thus the price share of a company dealing/managing/mining bitcoins) is very much dependent on social media. Bullish posts (tweets) are linked with higher values of bitcoin currency, whereas bearish posts are associated with lower values. Interestingly, social media's effects on bitcoin are stimulated by the 95% silent majority rather than the vocal ones.

Furthermore, there are additional actions that may lead to such sharp deviations. First, there have been reports that traders can also be dealing in options and futures related to cryptocurrency mining company stocks, and the mining company's stock mirror daily bitcoin action and witness a 10% daily swing in the prices (Pechman, 2021). Second, fresh investments in a mining company's stocks also produce an increase in the price. For example, *Emerald Mutual Fund Advisers Trust* made an investment of \$5.27 Million in Marathon Digital Holdings, Inc (American Banking News, 2021).

Projected concerns

In Marathon's case, neither the technical nor the fundamental analysis seems to have played a decisive role in the price swings. The news feeds, of all types and sources, play a large role in the crypto prices, which shed light on other projected concerns. Such concerns are not yet effectively addressed in the markets but when mentioned in the news feeds, they may positively or negatively influence the prices regardless of a company's portfolio, investments, or innovation. By the looks of it, newsfeeds largely determine bitcoin and Marathon stock prices. As a result, there are several concerns regarding crypto prices: ethical (pumping and dumping), environmental (green sustainability in terms of mining bitcoins), regulatory (rapid fluctuations), and security (hacking).

In terms of ethical concerns, since almost one year ago, there have been calls that pump-and-dump trading (whether for stocks, forex, or cryptos) needs new rules for the digital age (Cohodes, 2020). Till today, no serious steps have been undertaken. Bitcoin's (or similar cryptos) price is highly volatile, and claims of misbehavior, including pump and dump, spoofing, wash trading, and front-running by exchanges, are widespread (Roubini, 2021).

In addition, the fundamental value of bitcoin is zero and would be negative if a proper carbon tax was applied to its massive polluting energy-consuming production (Roubini, 2021). This leads us to our second concern.

For the environmental concerns, for instance, Elon Musk tweeted that Tesla would resume using digital currencies for its transactions once crypto mining becomes greener (Partridge, 2021). Since Marathon Digital Holdings company is specialized in mining bitcoins, a huge amount of energy is consumed to conduct its activities effectively, but not efficiently. It has been reported by the Cambridge Bitcoin Electricity Consumption Index that the energy used to produce bitcoin alone is equivalent to the annual carbon footprint of Argentina.

Similarly, cryptocurrencies have split opinions among investors and financial regulators including the rollercoaster ride sparked by their frequent swings in price (Partridge, 2021).

Furthermore, apart from the regulatory concerns, there is also skepticism among regulators concerning the vulnerability of cryptocurrencies to theft or hacking (Partridge, 2021). For instance, The Bank of England warned

of such risks to all investors trading with cryptocurrencies, in which economic and financial instabilities may arise in the future.

Concluding Remarks

According to Hyder (2020), social media has been assisting in the flourishing and growth of cryptocurrencies (through word of mouth). But, on the other hand, the mainstream media (which most of them are affiliated with, managed, and funded by big banks, investors, and politicians) is going against the flow. The extreme volatility of the prices of cryptocurrencies (bitcoin or others) and hence the FinTech companies dealing with bitcoins are hugely being affected within two different and opposing streams of media.

It is evident that FinTechs dealing with cryptocurrencies still have a long way to penetrate the financial markets despite the high level of innovation involved (blockchain technology). Regardless of the chosen strategy, due to the rapid evolution of technology, other disciplines or domains are lagging because of improper (or lack of) adequate processes (regulatory, security, ethical, etc.). From the looks of it, the financial sector, despite its significance, still needs time to fully embrace this technology.

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