

An Analysis of Factors Affecting Cryptocurrency Prices in India

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Introduction: Cryptocurrency is any kind of currency that is digitally or virtually and uses cryptography to secure transactions. Cryptocurrencies don't have a central issuing or regulating authority, instead using a decentralized system to record transactions and issue new units.

Cryptocurrency is a digital payment system that doesn't rely on banks to verify transactions. It is a peer-to-peer system that can enable anyone anywhere to send and receive payments. Instead of being physical money carried around and exchanged in the real world, cryptocurrency payments exist purely as digital entries to an online database describing specific transactions. When you transfer cryptocurrency funds, the transactions are recorded in a public ledger. Cryptocurrency is stored in digital wallets.

Blockchain: A block chain is a database that stores encrypted blocks of data then chains them together to form a chronological single source of truth for the data. Digital assets are distributed instead of copied or transferred creating an immutable record of an asset. The asset is decentralized allowing full real time access and transparency to the public. A transparent ledger of changes preserves integrity of the document which creates trust in the asset. Blockchain inherent security measures and public ledger make it a prime technology for almost every single sector.

Literature Review

Yohlas SOVBETOV (2018) has entitled "Factors Influencing Cryptocurrency Prices: Evidence from Bitcoin, Ethereum, Dash, Litecoin, and Monero" that Cryptocurrency has received a lot of attention from the media and the public due its recent price surge and crash. The factors which influence prices of most common cryptocurrencies are market beta, trading volume has significant impact on both long term and short term. The S&P500 index seems to have weak positive impact on long run. NurgunKomsuogluYilmaz and HulyaBoydaz Hazar (2018) has entitled "PREDICTING FUTURE CRYPTOCURRENCY INVESTMENT TRENDS BY CONJOINT ANALYSIS" The cryptocurrency is invested in 2008 but it is booming nowadays so, the history of money did not end with the invention of Fiat currency such as US dollar or EURO. Cryptocurrency in new development. It is not trade good nor a fiat currency. It is a new experimental kind of money. The major thing influence investor to invest in cryptocurrency is to have high profit.

Andrew spur and MarceAustoos (2020) “Challenging practical features of Bitcoin by the main altcoins” The currencies that offer significant advantages are these same currencies namely Bitcoin, Ether and Zcash. Their low correlation between market capitalization and transaction volumes are indicative of posturing and superficial inflation. these currencies offer unique benefits to user that are fundamentally useful but they are not divergent favourable against the strong popularity of Bitcoin.

Ahmet Faruk Aysan ,AsadUl Islam Khan and HumeyraTopuz (2021) entitled “Bitcoin and Altcoins Price Dependency: Resilience and Portfolio Allocation in COVID-19 Outbreak”The interrelationships among the top cryptocurrencies on the crypto stock market in the presence and absence of the covid-19 pandemic is strong in long run. Itha also been found that these cryptocurrencies prices and their interrelationships are re-silent to the pandemic.

Pradeep Prabakaran and Nishanth Panchalingamhas entitled“Factors Influencing the Trend of Cryptocurrency In 2008”, Satoshi Nakamoto introduced bitcoin which is based on the concept of distributed block chains. To overcome the drawbacks of the conventional payment’s methods. Cryptocurrency is devoid of any of the influencing or regulatory factors. Traditional currencies are generally influenced by various factors including political and economic scenarios. Various attributes are involved which directly or indirectly contributes to the growth of cryptocurrency.

ObryanPoyser(2017) has entitled“Exploring the dynamics of Bitcoin’s price: A Bayesian structural time series approach”. As a product of an information of technology conception, digital currency definition can be ambiguous, it can be defined as a protocol platform, currency or payment method (Athey et al. 2016). Bitcoin might be entering in a new phase Bouoiyour and Semi (2006) in this regard the increasing effect of attractiveness may be an indicative prospect of such arguments.

DianisisPhilippas (2018) has entitled “Media Attention and Bitcoin Prices”Cryptocurrencies momentum factors that influence the price of Bitcoin and other altcoin like Ethereum etc. are Google tends, Twitter, social networks. The media network has only practical influence on Bitcoin and altcoin price, which is greater on periods with higher uncertainty.

EgorZmazner(2017) has entitled “BITCOIN AND ETHEREUM EVOLUTION” Cryptocurrencies and their development is a complex and trending topic. Its rapid development issues and regulations towards the digital money are bringing several social, economic and even ideological questions. Both theoretical analysis and research results have shown the large potential of the cryptocurrencies in terms of personal and corporate use, backed up with a high level of loyalty towards the cryptocurrencies. CavidanYakupoglu(2016) has entitled “A Comparative study on bitcoin and alternative cryptocurrencies” that Cryptocurrencies is a kind of digital currency which built on some cryptographic algorithms and also it is called virtual currency. Bitcoin is first decentralized peer to peer and most prominent cryptocurrency. Some coins are developed with a great idea like Ethereum, Namecoin, coloured coin. Every day, a new coin is developed in the market of cryptocurrency to replace the fiat currency. Along with new development it showed there’s

not any flowless cryptocurrencies yet. Because there are many aspects to examine for full-fledged cryptocurrency concept.

Arman Zhamharyan(2018) has entitled “Price determinants and prediction of Bitcoin and Ethereum” Numerous cryptocurrencies emerged after the initial success of Bitcoin, the biggest of which after Bitcoin is Ethereum. It has deregulated nature, lack of necessity of a third party to verify transaction, relatively low, transaction fees and its speculative characteristic made cryptocurrency more famous in the market of investment. It has evidence that Bitcoin is also used for diversification and hedging which is not observed for Ethereum.

Need for the study:

- ❖ To predict the prices of the cryptocurrencies in advance which creates a huge opportunity and reduces the risk of investors.
- ❖ To know the trends in the cryptocurrency which has a major impact on the behaviour of crypto market.
- ❖ The analysis in crypto market is not simple as the stock market but by this study the analysis of major digital coin Bitcoin and Ethereum is possible.
- ❖ To understand the work of cryptocurrencies in the world economy and futures development of cryptocurrency.
- ❖ To know the issues and possible benefits of digital currency.

Statement of the Problem:

- Due to consistent fluctuation in the crypto market. It will be challenging to determine the factors affecting on the price of Bitcoin and Ethereum.
- Though there is no central authority on Bitcoin and Ethereum various indirect factors can effect on its price.

Now presently billions of dollars are being poured into the crypto market daily. This exponential growth has created doubt about the future of the crypto market. Where on side takes the argument that it is a bubble waiting to burst, the other side takes the argument that the other side argues that crypto would give an option for many investors.

Objectives of the study:

- To analyse Internal and External factors affecting on Bitcoin and Ethereum prices.
- To examine the relationship between Bitcoin and Ethereum affecting on their price fluctuation and forecast future price.
- To study the current issues &Prospects for development of Bitcoin and Ethereum.

Research Methodology

The crypto market follows some of the trends which are likely to be inspired from the stock market. The trends are to be followed are upward trend, downward trend and sideways trend. This trend can be traced by the mean of moving average analysis. The moving average analysis is used to find the basic analysis technique for time series data is moving average. The data is extracted from the website of coincapmarket.com from the date range of 30 days. The analysis is made through forecasting using Auto Regressive Moving Average (ARMA)

technique. Two steps are considered here to forecast the US bitcoins prices in the future. The first step is checking for Stationarity of the data and the next step in building ARMA model is the model identification using Auto-correction Function (ACF) or correlogram and Partial Auto-correlation Function (PACF).

Economic impact of Cryptocurrency on Unstable domestic currencies:

Since the 1970s, confidence in US banks has consistently decreased. And in countries where the domestic currency is constantly fluctuating, causing living conditions to plummet, cryptocurrency can be used to circumvent these situations. Cryptocurrency is a wholly utilitarian practice in which peers oversee each transaction which the oversight of the government. 1.7 billion people worldwide don't have a bank account. They are financially disadvantaged and often must resort to dangerous lending practices. Interestingly, many this population possess a cell phone because cryptocurrencies can be transacted through mobile applications, cryptocurrency can easily become a viable option for them.

An added advantage of cryptocurrency is that fits completely decentralized which means that for citizens living in countries with currency instability, cryptocurrency allows them to trade freely across borders with citizens of more will of countries, creating a level of economic equality.

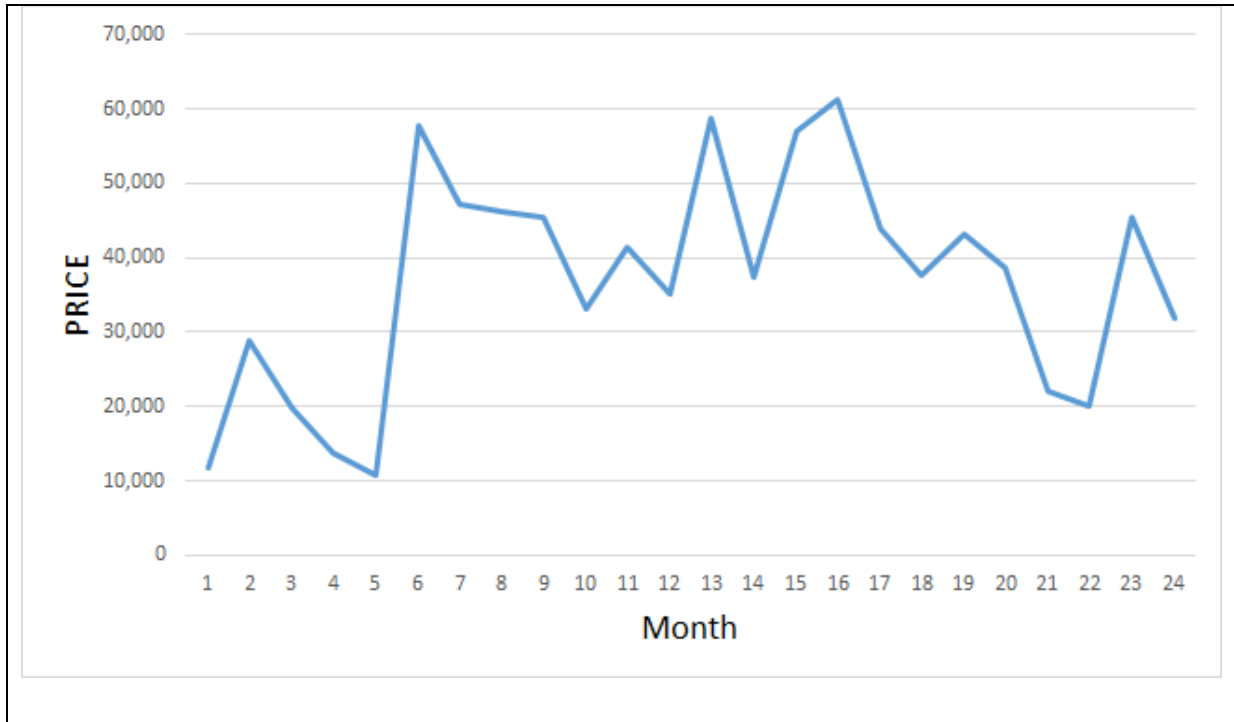
A. FORECASTING OF BITCOINS – US DATA

Table 1: PRICE OF BITCOINS DURING Aug 2020 and May 2022 – US TRADE

| | Month | Year | BITCOIN PRICE (US PRICE) | | Month | Year | BITCOIN PRICE (US PRICE) |
|----|-------|------|--------------------------|----|-------|------|--------------------------|
| 1 | Aug | 2020 | 11,671 | 13 | Mar | 2021 | 58,796 |
| 2 | Dec | 2020 | 28,933 | 14 | May | 2021 | 37,305 |
| 3 | Nov | 2020 | 19,686 | 15 | Nov | 2021 | 56,938 |
| 4 | Oct | 2020 | 13,788 | 16 | Oct | 2021 | 61,330 |
| 5 | Sep | 2020 | 10,794 | 17 | Sep | 2021 | 43,830 |
| 6 | Apr | 2021 | 57,637 | 18 | Apr | 2022 | 37,662 |
| 7 | Aug | 2021 | 47,157 | 19 | Feb | 2022 | 43,202 |
| 8 | Dec | 2021 | 46,218 | 20 | Jan | 2022 | 38,526 |
| 9 | Feb | 2021 | 45,300 | 21 | Jul | 2022 | 22,079 |
| 10 | Jan | 2021 | 33,141 | 22 | Jun | 2022 | 19,938 |
| 11 | Jul | 2021 | 41,409 | 23 | Mar | 2022 | 45,535 |
| 12 | Jun | 2021 | 35,044 | 24 | May | 2022 | 31,792 |

Source: www.coincapmarket.com

Fig 1: Trend data of US BITCOINS – From Aug 2020 to May 2022



Forecasting using Auto Regressive Moving Average (ARMA) technique:

Two steps are considered here to forecast the US bitcoins prices in the future.

Step 1: The first step is checking the data for stationarity. When the time series data is not stationary, then we have convert the non-stationary data before applying AR models.

1. Check for Stationarity of the data:

The unit root test used for checking the stationarity of the data is provided in Table 2. It appeared that

Table 2: Unit root test for stationarity for US BITCOIN

| | | |
|--|------------------|---------------|
| Null Hypothesis: D(BITCOIN_US,2) has a unit root | | |
| Exogenous: Constant | | |
| Lag Length: 1 (Automatic - based on SIC, maxlag=5) | | |
| | t-Statistic | Prob.* |
| Augmented Dickey-Fuller test statistic | -5.897971 | 0.0001 |
| Test critical values: | 1% level | -3.808546 |
| | 5% level | -3.020686 |
| | 10% level | -2.650413 |
| *MacKinnon (1996) one-sided p-values. | | |

2. ARMA MODEL:

The next step in building ARMA model is the model identification using Auto-correction Function (ACF) or correlogram and Partial Auto-correlation Function (PACF). Thus, the

ACF and PACF plots based on 24 months' price of US bitcoins are in given in Figure 2 and Figure 3 respectively. Accordingly, the auto-correlation is cutting off to zero at one and third lag (note that auto-correlation of any lag number is not below the critical value). Similarly, PACF value also cuts at one and third lag (Dinesh, 2017). However, we can consider one lag. So, the appropriate mode could be ARMA (1,2,3) process (see Figure 4).

Fig 2: ACF Plot for US BITCOINS

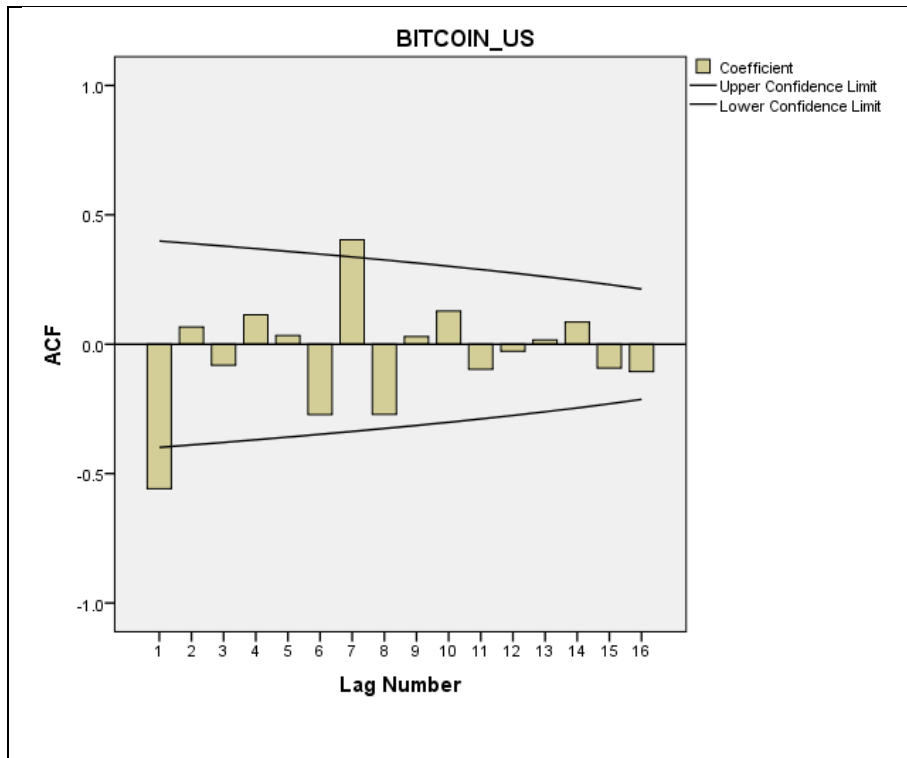


Fig 3: PACF Plot for US BITCOINS

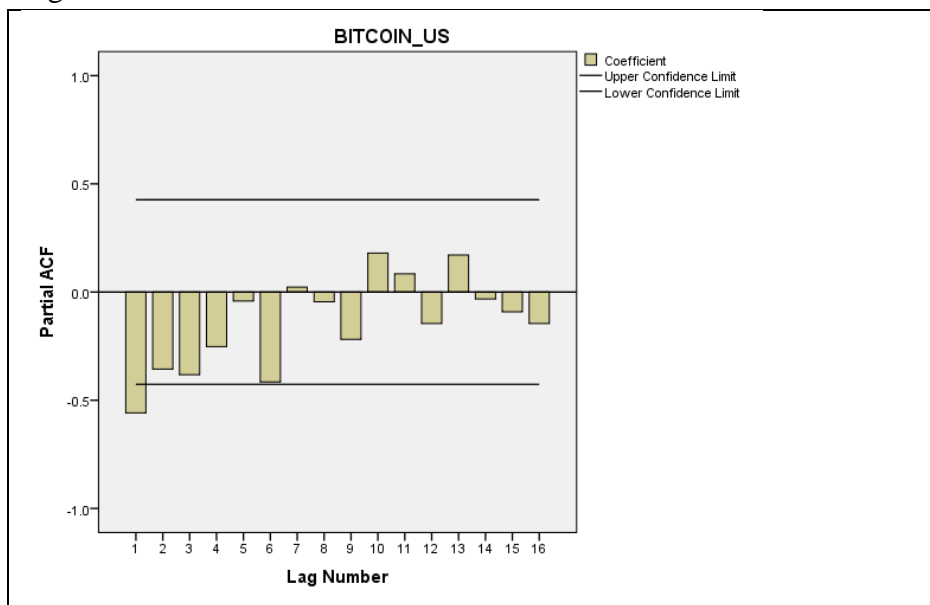


Fig 4: Correlogram result for US-BITCOINS

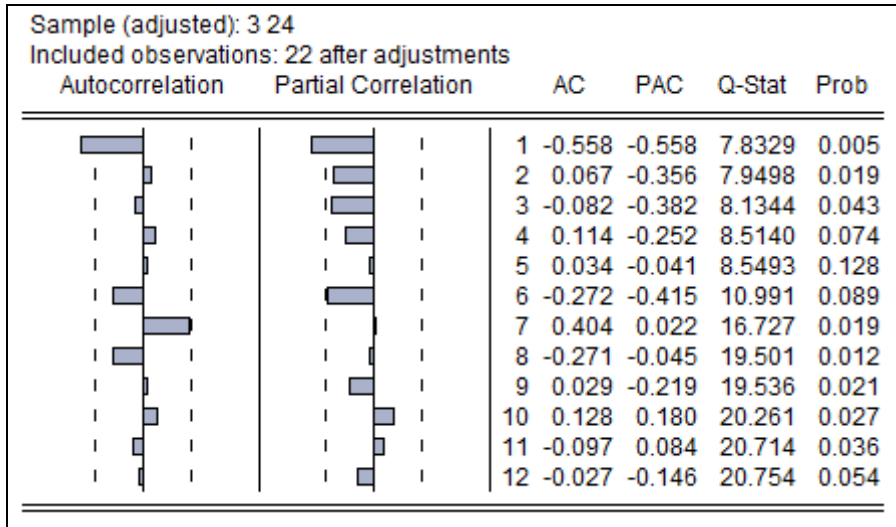


Table 3: Model Fit Statistics for BITCOINS prices

| Model | Model Fit statistics | | |
|-------|----------------------|-----------|--------|
| | Stationary R-squared | RMSE | MAPE |
| | .669 | 17481.104 | 37.090 |

Table 4: ARIMA MODEL PARAMETERS for BICOINS

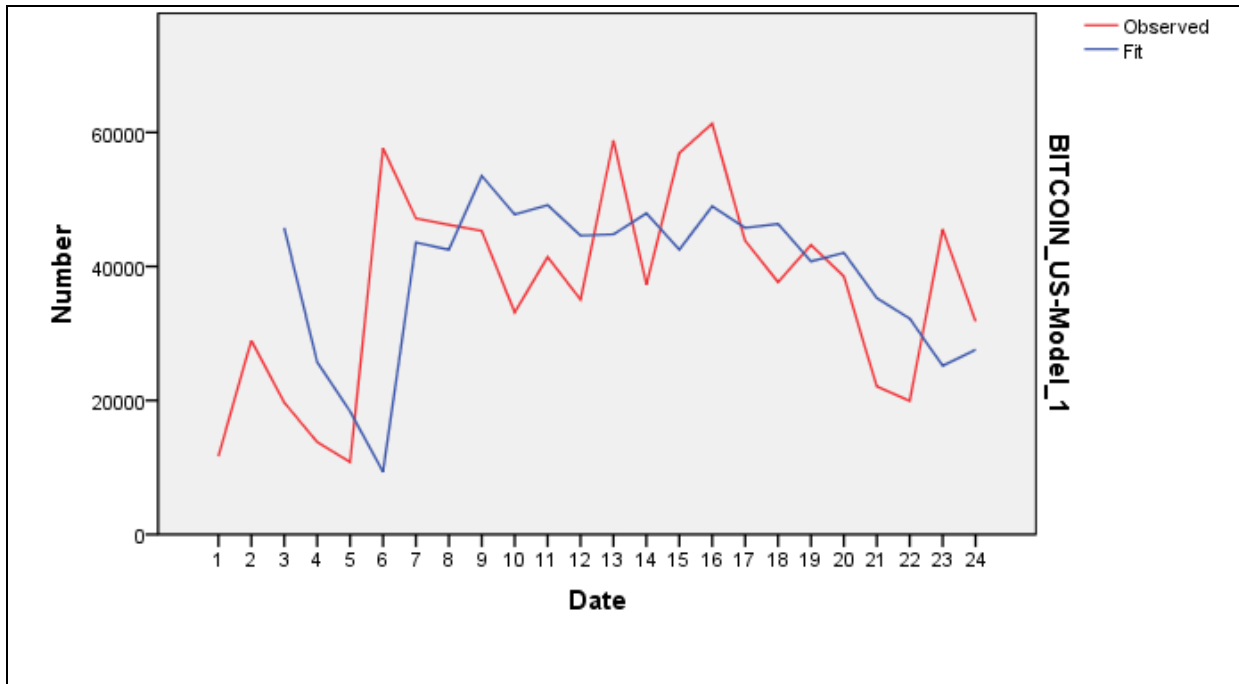
| | | Estimate | SE | t | Sig. |
|----------|-------|-----------|---------|--------|--------|
| Constant | | - 435.187 | 131.409 | -3.312 | 0.004* |
| AR | Lag 1 | -1.093 | .490 | -2.230 | 0.017* |
| MA | Lag 1 | 15.210 | 6.193 | 2.456 | 0.011* |
| | Lag 2 | 21.974 | 7.784 | 2.823 | 0.044* |
| | Lag 3 | -16.946 | 6.140 | -2.760 | 0.055* |

* Significant at 5 % level

All three components in the ARMA model (AR lag 1, difference 2, MA lags 1,2,3) are statistically significant. The estimated model equation is given by.

$$Y_{t+1} + 435.187 = -0.847x (Y_t + 435.187) - 0.963x\varepsilon_t - 0.959x\varepsilon_{t-1} + 0.980x\varepsilon_{t-2}$$

Fig 5: Observed versus forecasted prices of US-BITCOINS



B. ETHEREUM US DOLLAR BINANCE:

Table 5: PRICE OF ETHEREUM BINANCE DURING Dec 2020 and Jan 2022 – US TRADE

| | Month | Year | BITCOIN PRICE (US PRICE) | | Month | Year | BITCOIN PRICE (US PRICE) |
|----|-------|------|--------------------------|----|-------|------|--------------------------|
| 1 | Dec | 2020 | 735.81 | 13 | May | 2021 | 2,706.12 |
| 2 | Nov | 2020 | 615.96 | 14 | Apr | 2021 | 2,771.94 |
| 3 | Oct | 2020 | 386.52 | 15 | Mar | 2021 | 1,918.24 |
| 4 | Sep | 2020 | 359.78 | 16 | Feb | 2021 | 1,418.23 |
| 5 | Aug | 2020 | 434.06 | 17 | Jan | 2021 | 1,312.93 |
| 6 | Dec | 2021 | 3,677.70 | 18 | Jul | 2022 | 1,528.31 |
| 7 | Nov | 2021 | 4,631.22 | 19 | Jun | 2022 | 1,068.66 |
| 8 | Oct | 2021 | 4,287.60 | 20 | May | 2022 | 1,941.78 |
| 9 | Sep | 2021 | 2,999.86 | 21 | Apr | 2022 | 2,727.10 |
| 10 | Aug | 2021 | 3,429.45 | 22 | Mar | 2022 | 3,282.39 |
| 11 | Jul | 2021 | 2,528.85 | 23 | Feb | 2022 | 2,922.35 |
| 12 | Jun | 2021 | 2,274.99 | 24 | Jan | 2022 | 2,686.66 |

Fig 6: Trend data of ETHEREUM BINANCE – From Dec 2000 to Jan 2022

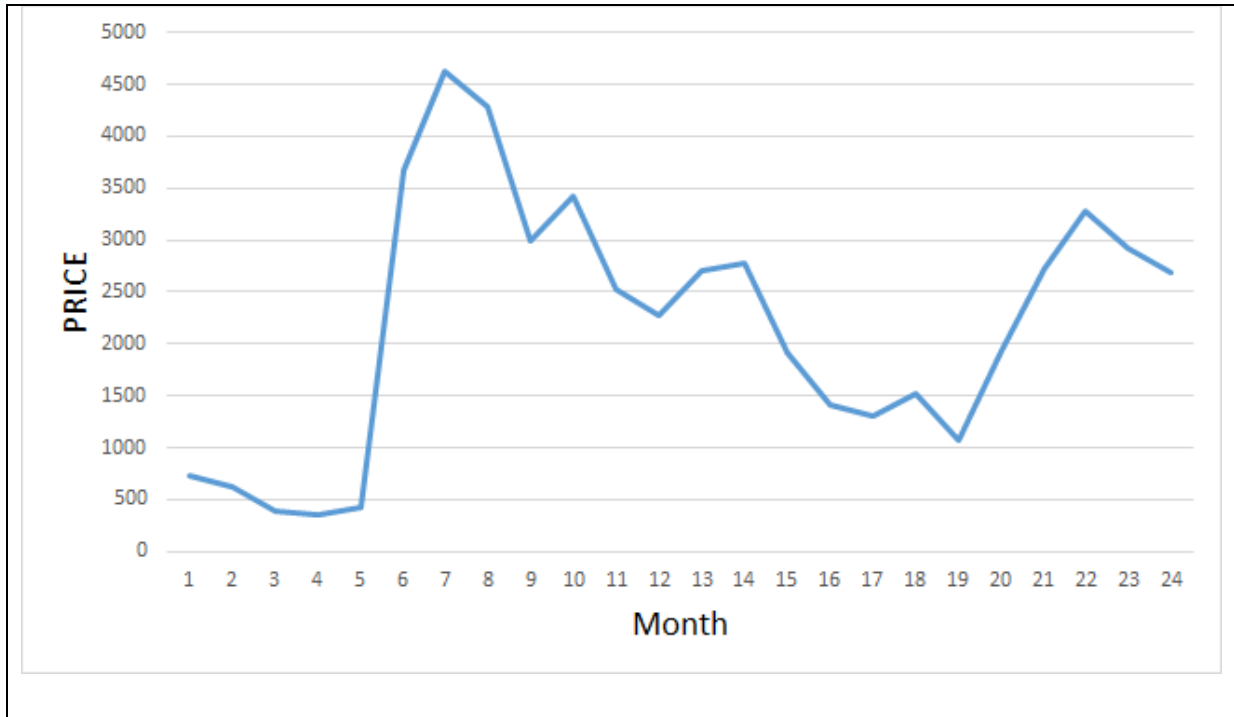


Table 6: Unit root test for stationarity for ETHEREUM BINANCE at first difference

| Null Hypothesis: D(BINANCE) has a unit root | | |
|--|-------------|--------|
| Exogenous: Constant | | |
| Lag Length: 4 (Automatic - based on SIC, maxlag=5) | | |
| | t-Statistic | Prob.* |
| Augmented Dickey-Fuller test statistic | -4.747416 | 0.0016 |
| Test critical values: | | |
| 1% level | -3.857386 | |
| 5% level | -3.040391 | |
| 10% level | -2.660551 | |

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations and may not be accurate for a sample size of 18

Fig 7: ACF Plot for BINANCE DOLLARS

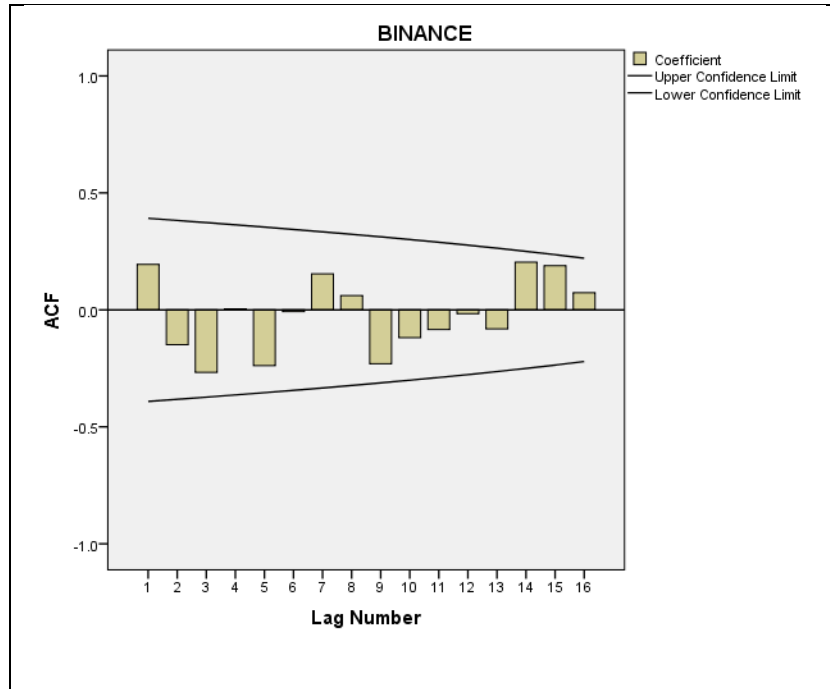


Fig 8: PACF Plot for BINANCE DOLLARS

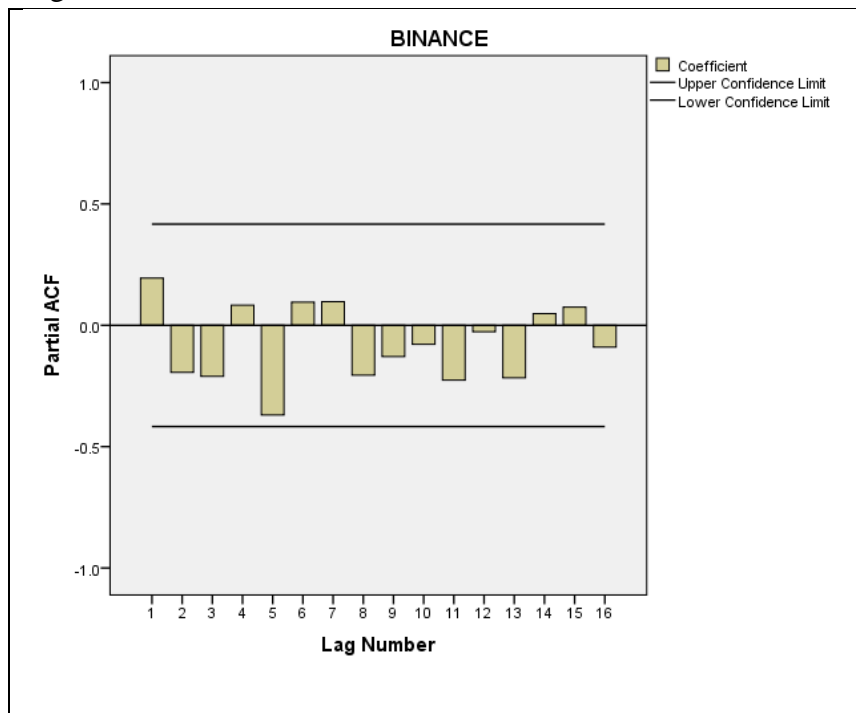
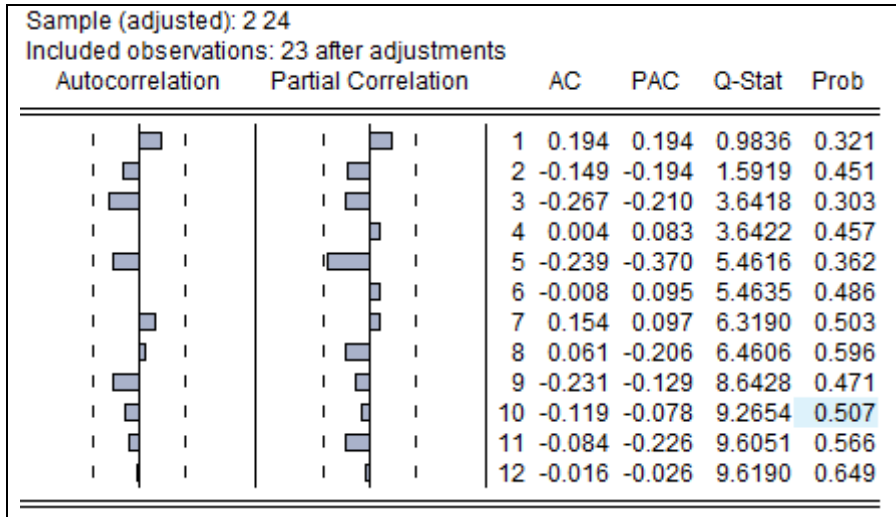


Figure 9: Correlogram result for BINANCE DOLLARS



The ACF and PACF plots based on 24 months' price of BINANCE DOLLARS are in given in Figure 7 and Figure 8, respectively. Accordingly, the auto-correlation is not cutting off to zero at one (note that auto-correlation of any lag number is not below the critical value). Similarly, PACF value also has no cutoff at any lag. So, the appropriate mode could be ARMA (0,1,0) process (see Figure 9).

Table 7: Model Fit Statistics for BINANCE DOLLARS

| Model | Model Fit statistics | | |
|-------|----------------------|--------|-------|
| | Stationary R-squared | RMSE | MAPE |
| | 0.038 | 895.05 | 26.20 |

Table 8: ARIMA MODEL PARAMETERS for BINANCE DOLLARS

| | | Estimate | SE | t | Sig. |
|------------|-------|----------|--------|-------|--------|
| Constant | | 534.555 | 227.47 | 2.350 | 0.730 |
| AR | Lag 1 | 0.618 | 0.215 | 2.874 | 0.042* |
| Difference | | 1 | | | |

* Significant at 5 % level

The estimated model equation for BINANCE DOLLARS is given by.

$$Y_{t+1} - 534.555 = 0.618x (Y_t - 534.555) - 0.618x\varepsilon_{t-1}$$

Factors affecting on cryptocurrency prices:

The main objective of this study is to study about to study the factors affecting on the cryptocurrency prices. Like every other currency, cryptos get their value based on community involvement. This may include demand for the coin, its utility and scarcity. As a matter of fact, most cryptocurrencies evolve from private blockchain firms. So, the value of such cryptos will stem from the company's image, perceived value and project viability.

Mentioned below are the 6 major factors that affect the value of cryptos:

Node count: The node count exhibits the number of active wallets in a network. This denotes how strong a particular community is. Thus, a high node indicates a strong community, and a low node count may also denote the decentralisation and strength of a network, both of which are essential factors when it comes to cryptocurrencies.

Cryptocurrency exchanges: A token, if available in many exchanges, indicates that more people are purchasing it. Meanwhile investors needing two or more exchanges to swap their cryptos will have to pay a fee for each swap. This will increase the investment cost.

Cost of production: This is yet another factor that affects crypto value. Miners use special servers or hardware to produce new tokens and substantiate daily network transactions. Due to their rigorous work, they are rewarded with a network fee and virtual tokens.

So, if the cost of mining increases, the value of a cryptocurrency may also go up. However, this factor does not apply to all currencies. So, investors must conduct proper research beforehand. Mining is the core of cryptocurrency. Mining can be described as the process of authorizing and authenticating transactions. The authorized transaction is then added into the public ledger. Miners are required to solve resource intensive tasks to verify the authenticity of the transactions. Proof of work, Proof of Stake and Proof of retrievability are some of the existing tasks to assure validity. Considerable amount of computing power is required to mine the bitcoin. Early research has found that mining has led to increase in the prices of commodity. Such a correlation has been found to be true for virtual currencies as well. The mining of bitcoin involves significant hardware, electricity, and manpower cost. This difficulty in mining could directly correlate with the rise in cost of cryptocurrency. However, Bitcoin mining capabilities have advanced significantly over time. New mining techniques have been developed with emphasis on energy conservation. While the price of bitcoin seemed to increase with mining, these advancements have contributed to the decrease in costs thus resulting in a stabilization of bitcoin price that bitcoin. It was observed that tweets influenced the closing price and the volume of bitcoin.

Government regulations: As cryptocurrencies regain momentum and become more mainstream their chances of attracting specific regulations by the government are tremendously high. Certain governments across the world do not appreciate the unregulated and decentralised nature of this currency. Resultantly, they take certain measures to control this market.

The easiest way to control the crypto market is to add taxation in transactions. Such regulations and limitations will increase the centralisation of virtual currency, thus affecting the cryptocurrency price.

One factor that often has a large influence on the price of cryptocurrencies are new regulations or oversight requirements that are put into place. In some cases that influence is positive, but in others it is not. At the end of the day, it all boils down to the type of regulations that are implemented. If they are too restrictive or take the form of a crackdown, the price of the cryptocurrency could plummet. On the other hand if they are more positive, they could become the catalyst that makes the price rise.

Scarcity: If there is a limited supply of cryptos, the currency's price will increase. Meanwhile, if more cryptos are supplied the price will decrease.

Moreover, some cryptocurrency projects “burn” current coins by guiding them to an irretrievable address inside the blockchain. this is an indispensable way to control supply.

Market cap: Market cap or market capitalisation is one of the most straightforward indicators of a coin's market value. One can calculate the market cap by multiplying the total coin supply with each coin's price.

Social Media: Cryptocurrency value is known to change because of social media hype. And it works both ways as the news will lower or raise prices. There is also the impact made by influential people among the crypto community, such as Elon Musk, who Influenced the DOGE coin value several times whether meaning to or not.

Social media is characterized by chaos, but there is information to be found. For example, crypto exchanges constantly give updates on blockchain currency or inform about crypto scams.

Tweets, blogs, emails are used a wide form of marketing medium. With the use of these social media services, marketing people can get information about the habits of customers. Twitter, a social microblogging website has become an important tool to communicate and share information. Launched in 2006, twitter has 330 million active users. The popularity of cryptocurrency can be found to increase with the number of users participating in the social network. Social network participation can be in various forms including twitter, face book, google searches. It can be noted that positive news in social media can have a positive impact on the virtual currency. The price of a crypto is also influenced by twitter. A research work was conducted over a period of 104 days with 160,000 tweets containing positive, negative, and neutral references governance. The study also shows the advantages, drawbacks, and limitations of cryptocurrency in comparison with traditional systems.

Coverage of cryptocurrencies in the media can definitely sway the sentiment of investors and affect the demand. If the news is positive it could help the price to rise, whereas if it is not then it will drive it down. It should be noted that the media can play a positive role indirectly as well by informing and educating viewers regarding cryptocurrencies. The greater the understanding of the general public, the more demand there will probably be.

Trust and Security: Unlike traditional systems, the price of cryptocurrencies is affected by risk and uncertainties. Since a cryptocurrency does not have its value derived from consumption, the price is influenced by the trust placed by the investors that the currency might become a medium of exchange in future. The trust placed by the customers on cryptocurrency is influenced by the security and transparency provided by blockchain enforced cryptographic methods. However, such digital currencies are also subjected to cyber-attacks. There have been frequent attacks on the digital currency system the most prominent of which happened in 2014 resulting in the loss of 850,000 bitcoins. For the year 2021, nearly \$400 million of cryptocurrency was stolen by hackers.

Competition: The number of existing cryptocurrencies just keeps going up, with new tokens being launched every day. There are meme coins, soccer team coins, celebrity coins, and many, many more. Therefore, are also viable cryptocurrency projects among these new coins that could overcome a current limitation and built a strong user's network.

Supply and Demand: In a traditional economic method, the price fluctuation of any currency or commodity is calculated by cash flow models, purchasing power parity, interest rate and many other factors. However, in the case of cryptocurrency such models would not work. Unlike traditional currency cryptocurrency does not depend on the government or any central agency which is responsible for setting the macroeconomic principles for price control. There is a limitation on the number of coins that can be mined for bitcoin. The limitation of 21 million coins set for bitcoin has a direct impact on the trend and fluctuation of bitcoin. The demand for any currency or commodity is primarily driven by its value which it generates as a medium of exchange. The supply of bitcoin is the number of bitcoins available for circulation and the demand is triggered by bitcoin as a medium of transaction. Studies conducted has proven that supply and demand not only plays a role in the price of cryptocurrency but the importance of these would only tend to increase with time.

The main factor that affects the price of any cryptocurrency is the law of supply and demand. To put it simply the higher the demand and the lower the supply, the more the price will be. Conversely if the demand is low and the supply is high, the price will be less. Unlike conventional currencies, the supply of cryptocurrencies is limited. On top of that the growth of supply starts to slow down over time, which means that the demand is highly likely to exceed the supply. At the same time the demand for cryptocurrencies can vary significantly as well. It is affected by several other factors that are often specific to the cryptocurrency in question.

Findings

The moving average analysis Bitcoin suggests that the price of the bitcoin is following upward trend which a suitable time to invest in the crypto market. It is also suggested that the analysis helps the investor to gain short-term gains. The data showing the trends and the future forecast of the Bitcoin prices. Which helpsthe investor to study the crypto market in detail. It also helps in the analysisof the data frequently which provides the investor to know

the right time to invest. The moving average analysis of Ethereum suggests that the price of the crypto is following upward trend which suitable time invest in the Ethereum coin. It is also suggested that the analysis helps the investor to gain short-term gains. The data showing the trends and the future forecast of the Ethereum prices. Which helps the investor to study the crypto market in detail. It also helps in the analysis of the data frequently which provides the investor to know the right time to invest. The study explores all aspects of the cryptocurrency which effects the prices of the Ethereum. The study finds that the price of all crypto follows the major and familiar coin Bitcoin. Two or more exchanges to swap their cryptos will have to pay a fee for each swap. This will increase the investment cost.

The trust placed by the customers on cryptocurrency is influenced by the security and transparency provided by blockchain enforced cryptographic methods. However, such digital currencies are also subjected to cyber-attacks.

The production of cryptocurrency requires for it to be 'mined', and that can become more difficult over time. If it is more difficult the cost to produce a single token will be higher, which will invariably affect the price of the cryptocurrency as well.

The internal and external factors have the significant effect on Bitcoin and Ethereum which makes the major fluctuation in the price of the crypto which influences more on the all-other types of crypto. The competition does have an integral role in deciding the future prices of a particular cryptocurrency, so it affects more on price of bitcoin and Ethereum. The price of a crypto is also influenced by twitter. A research work was conducted over a period of 104 days with 160,000 tweets containing positive, negative, and neutral references that bitcoin. It was observed that tweets influenced the closing price and the volume of bitcoin.

Social media activity or information taken from web search medium can also play a vital role in the fluctuating price of cryptocurrency. Several works have already been presented that has analysed the social media and bitcoin prices using regression analysis and cross correlation. The studies have suggested a significant correlation between web search and bitcoin price fluctuations. There have been frequent attacks on the digital currency system the most prominent of which happened in 2014 resulting in the loss of 850,000 bitcoins. For the year 2021, nearly \$400 million of cryptocurrency was stolen by hackers. This may have a huge impact on the price of cryptocurrency.

Suggestions:

It is very important to understand what is staying behind the blockchain as the technology which all cryptocurrencies are based on Getting familiar with it will help to realize the value of technology as long as its appearance solved the problem of trust and double spending. The more governments, companies and people will accept it, the bigger influence blockchain will have on E-payments services and investing world. It might be useful to get familiar with peculiarities of at least TOP 10 cryptocurrencies by market capitalization. That will help to understand which problems there were created to solve and which perspective they have in

sense of demand for them. Once investor gets familiar with fundamental representatives of the industry, he will be able to create reliable investment portfolio.

Conclusion: Cryptocurrency is a virtual system that functions like a medium of exchange that is being produced and stored electronically the blockchain, using encryption techniques to control the creation of monetary units and to verify the transfer of funds. The appearance of cryptocurrencies solved two issues: the problem of trust and double spending. The cryptocurrency history is ambiguous: despite the fact it has a criminal past, publicity, realizing that, boosted its acceptance of Bitcoin. Today there are more than 1250 cryptocurrencies. All of them are not functioning as traditional money. There are 3 groups of factors that influence the price of Bitcoin: factors from psychological perspective that include investors' attractiveness in form of search queries and news; factors from economic perspective that include Bitcoin use in exchange (Bitcoin economy), its velocity in circulation and global economic and financial indicators, which has controversial opinions; factors from technological perspective that include the Hash Rate (or energy efficiency), the size of mining network (or its difficulty) and cyber-attacks. The most significant factors in Bitcoin price formatting are attractiveness in form of search queries, news, and the use of Bitcoin in exchange (Bitcoin economy). According to expert assessment results Bitcoin price seems to keep growing for the next several years. Besides, cryptocurrency industry is undervalued today: it is moving very fast in its development and will shake up the financial services and global payments system in the future. Those cryptocurrencies that are going viral, or, in other words, are being widely discussed in news, social networks, are being actively searched in search engines define their bullish trend. Even though cryptocurrencies may provide inconceivable return of investments, they are too volatile today. Hence, it is better to be conservative while investing in it. If investor decides to use aggressive investment approach, he should have appropriate experience.

References:

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