Economic Behavioural Anomalies in Cryptocurrency Transactions during the COVID-19 Pandemic

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**ABSTRACT**

**Research Aims:** This research aims to analyse various economic behavioural anomalies that emerged in cryptocurrency transactions during the coronavirus disease 2019 (COVID-19) pandemic.

**Design/methodology/approach:** This research uses a literature study method to identify several dominant behavioural anomalies, such as FOMO (Fear of Missing Out), Herding Behaviour, Noise Trading, Overconfidence, and Anchoring Bias.

**Research Findings:** These behavioural anomalies trigger extreme market volatility, asset bubbles, and financial losses for investors.

**Theoretical Contribution/Originality:** This research highlights the importance of investor education, market regulation, and technology development to minimize the impact of behavioural anomalies and protect investors in the cryptocurrency market.

**Keywords:** Investment, Economic Behaviour, Financial Behaviour Anomalies, COVID-19 Pandemic, Cryptocurrency Transaction.

**Introduction**

In the past, every transaction that took place had to use the currency of a particular country. In 2008, Satoshi Nakamoto published a different option in monetary transactions by issuing Bitcoin as a peer-to-peer payment solution. Bitcoin has been a game-changer in the monetary transaction system and became the world’s first digital currency. Bitcoin was created to simplify the system of implementing online monetary transactions between parties without the confirmation of a third party or an official financial institution. (Nakamoto, 2008). The digital currency is now better known as cryptocurrency with various types of similar digital currencies besides Bitcoin.

The main purpose of creating cryptocurrencies is to facilitate financial transactions, especially foreign transactions. This character makes cryptocurrency can be called a decentralized currency. As a new currency, cryptocurrency is not only
a tool for online monetary transactions, but also one of the investment instruments collected by investors. Investment is an effort by a person or group of people to gain profit from their assets (Setiawan, 2020) where investments that were commonly known before the existence of cryptocurrency were land or property investments, gold, securities (deposits, stocks, bonds), derivative assets, and foreign currencies. Not only as an investment, according to Wardoyo, Nuryakin, & Hambali (2020), the initial promotion of cryptocurrency which was originally intended for business activities has now developed into an investment hedging destination for some business activists.

The COVID-19 pandemic has impacted many aspects of life, including the economy. One phenomenon that has drawn attention is the significant spike in cryptocurrency trading activity during the COVID-19 pandemic. During the COVID-19 pandemic, the economic conditions in Indonesia and the world were not good. During these economic conditions, investments generally decrease in value. This decline makes investors not interested in investing. However, data from Annur (2022) which shows an increase in cryptocurrency transactions proves that there is an increase in investor interest in Indonesia in conducting cryptocurrency transactions. The decision of investors to collect and transact cryptocurrency assets during the COVID-19 pandemic shows an anomaly of economic behaviour.

According to data launched by Bappebti in April 2023 revealed that the number of cryptocurrency investors in Indonesia has reached 17.25 million people. This figure shows an increase of 25.64% compared to April 2022 where only 13.73 cryptocurrency investors in Indonesia were recorded. Indonesian investors’ increased interest in cryptocurrency investment during the COVID-19 pandemic is inversely proportional to the decline in other investment transactions during COVID-19. In addition, the price/value of cryptocurrency during COVID-19 was observed to be more stable compared to the price/value of other investments.

In the middle of the COVID-19 pandemic (in 2021), crypto asset transactions in Indonesia increased by 1.222% compared to before. This can be seen in the following graph:

![Figure 1. Crypto Asset Transaction Chart in Indonesia in 2020 - February 2022](Source: (Annur, 2022))
The graph shows that the transactions and value of cryptocurrencies are not affected by the economic, political, and state conditions of a country. In contrast to other investment instruments such as stocks and forex (foreign exchange or foreign currency), which experienced severe shocks during the COVID-19 pandemic (Sari, 2023). This phenomenon triggers the emergence of various economic behaviour anomalies in crypto transactions, which are the focus of research in this theoretical foundation. These anomalies are included in financial behavioural anomalies in decision making.

**Literature Review**

**Financial Behaviour Anomalies**

A pioneer in behavioural finance is behavioural economist Richard Thaler who was awarded the Nobel Prize in Economics in 2017. In behavioural economics, the most dominant themes are about heuristics and the state of bias in financial decision making. It can be concluded that behavioural finance occurred before behavioural economics.

In behavioural finance, economists use microeconomic assumptions to make financial decisions based on the following hypotheses (Baddeley, 2019):

a. **Rational expectations hypothesis** - in theory, rational expectations are assumed to use all currently available information efficiently without systematic errors to assess the future. In this case, future expectations of asset fluctuations are unpredictable as current information is quickly factored into future expectations.

b. **Efficient market hypothesis** - that the current asset price reflects all currently available information and thus asset prices follow random movements. This makes asset prices unpredictable as any changes in asset prices are arbitrage.

In general, irrational financial decision-making is based on psychological and sociological influences. In irrational financial decision-making, there are theoretically several things that influence a person in making irrational financial decisions:

a. **Availability Heuristic**

   *Availability* heuristic (Tversky & Kahneman, 2017) is a cognitive bias that causes individuals to judge the probability of an event based on how easily they can recall similar examples. When we are asked about how likely an event is to occur, we tend to give greater weight to events that are easier for us to remember. For example, if we have just read a news story about an airplane crash, we may overestimate the likelihood of experiencing an airplane crash ourselves, even though airplane crashes are statistically rare.
In practice, the *Availability Heuristic* is often used by investors in determining their investments. Among them are used for (Tversky & Kahneman, 2017):

- **Risk Assessment**: Individuals who frequently hear news about crime may overestimate the risk of becoming a victim of crime, even though the risk is statistically low.
- **Investment Decision**: Individuals who have recently experienced losses in stock investments may be reluctant to invest in stocks again, even though statistically stocks can provide high returns in the long run.
- **Health Risk Perception**: Individuals who have friends or family who died from a particular disease may overestimate the risk of developing the disease, even if the risk is statistically low.

While this theory can help investors calculate their investments, the *availability heuristic* can also cause individuals to make irrational and suboptimal decisions. (Tversky & Kahneman, 2017). Here are some of the impacts (Tversky & Kahneman, 2017):

- **Excessive fear**: Individuals may become overly fearful of events that are actually rare.
- **Missed opportunities**: Individuals may miss out on profitable opportunities because they are afraid of risks that are actually low.
- **Non-objective decision-making**: Individuals may make decisions based on incomplete or inaccurate information.

### b. Endowment Effect

Endowment effect (Knetsch, 1990) is a cognitive bias in economic behaviour that causes individuals to value an item more highly after they own it than before they owned it. In other words, individuals tend to overestimate the value of the item they own because they feel an emotional connection with it.

The *endowment effect* can be explained by two main theories (Knetsch, 1990):

- **Ownership Theory**: When individuals own something, they naturally develop a sense of ownership and identity with the item. This can make them feel that the item is more valuable to them than to others.
- **Loss Aversion Theory**: Loss aversion is a cognitive bias that causes individuals to perceive losses more severely than they perceive gains of equal value. Cognitive bias (Tversky & Kahneman, 2017) is a systematic pattern of thinking that can lead to errors in decision-making. Individuals tend to be more sensitive to potential losses than potential gains. When they own something, they feel they are losing something valuable if they have to let it go. This can make them reluctant to sell the item, even if they could gain financially by doing so. Loss aversion can lead to investors holding onto a losing asset for too long in the hope that the price will rise again, even though rationally it may be better to sell the asset and invest
elsewhere.

c. Framing & Bracketing

Framing and bracketing (Chong, 2007) are two cognitive biases associated with the way individuals process and interpret information in economic decision-making. This theory suggests that the way information is presented can influence how individuals interpret and respond to it (Kahneman & Tversky, 2000). Individuals are more likely to choose an option presented in a positive way than one presented in a negative way, even if the end result of both options is the same. Framing (Chong, 2007) refers to the way information is presented to individuals, which can influence how they interpret that information and make decisions. While Bracketing (Chong, 2007) refers to the tendency of individuals to focus on the most salient or relevant information in a decision-making situation, ignoring other information that may be important. Framing and bracketing can have a significant impact on individual economic behaviour, some of which are (Chong, 2007):

- **Irrational decision-making:** Individuals may make decisions that are not in their best interest because information is presented in a misleading way or they only focus on certain information.
- **Risk aversion:** Individuals may be reluctant to take profitable risks as they focus more on potential losses than potential gains
- **Judgment errors:** Individuals may make errors in their judgment because they do not consider all relevant information.

d. Over Reaction & Under Reaction

Overreaction and under reaction (Barberis, 2005) are two cognitive biases associated with the way individuals process and interpret information in economic decision-making. Overreaction refers to the tendency of individuals to overreact to new information or recent events, ignoring past information or long-term trends (Barberis, 2005). An example of overreaction behaviour when the stock market falls (Gennaioli, 2002) is that investors may sell their shares in a panic after a small market decline, even though the market is still fundamentally strong. Under reaction refers to the tendency of individuals not to react strongly enough to new information or recent events, underestimating their impact or not taking the necessary action (Barberis, 2005). Examples of under reaction behaviour in the world of investment (Gennaioli, 2002) An example of under reaction behaviour in the investment world (Gennaioli, 2002) is an economic bubble where investors may continue to invest in assets that are inflated in value, despite signs that the bubble will burst (there will be a significant decline in asset prices).

Based on the definition and explanation using examples of overreaction and under reaction, overreaction and under reaction can have a significant impact on individual economic behaviour (Barberis, 2005) namely:
• **Suboptimal investment decisions:** Investors who overreact may make investment decisions based on emotions rather than rational analysis, which can lead to financial losses. Investors who underreact may miss out on profitable investment opportunities.

• **Market instability:** Overreaction can lead to excessive price fluctuations in financial markets, which can jeopardize economic stability.

• **Judgment errors:** Individuals who overreact or underreact may make judgment errors that can negatively impact their lives.

e. **Diversification Bias**

Diversification bias (Sheflin, 2009) is the tendency of investors to diversify their portfolios in a non-optimal way, even though they should rationally choose a more diversified portfolio. This bias can cause investors to take higher risks than they should and generate lower returns. Within this theory, there are several types of diversification bias (DeMiguel, 2002):

• **Under diversification:** Investors diversify their portfolio with too few assets. This can cause them to take on higher risk than they should and experience greater losses if one of their assets underperforms.

• **Over diversification:** Investors diversify their portfolio with too many assets. This can increase transaction costs and reduce overall portfolio returns.

• **Unbalanced diversification:** Investors diversify their portfolios in a way that does not match their risk tolerance. This can cause them to feel anxious and make irrational decisions.

There are several things that cause diversification bias (Barberis, 2005) namely:

• **Distrust of diversification:** Investors may not believe that diversification can help them reduce risk. This may cause them to be reluctant to diversify their portfolios.

• **Lack of knowledge about diversification:** Investors may not understand how to diversify their portfolio in an optimal way. This may lead them to make inappropriate diversification decisions.

• **Emotional pressure:** Investors may make diversification decisions based on emotions, such as fear or greed. This may cause them to make irrational decisions.

There are several impacts that will be experienced by investors if they carry out diversification bias. These impacts are (Sheflin, 2009):

• **Higher risk:** Investors with a diversification bias tend to take higher risks than they should. This may cause them to incur greater losses if the market goes down.

• **Lower returns:** Investors with a diversification bias tend to generate lower
returns than they otherwise would. This is because they may get trapped in underperforming assets or they may pay high transaction costs.

f. Prospect Theory

This theory explains how individuals make decisions under conditions of uncertainty (Thaler, 2008). This theory was developed by Daniel Kahneman and Amos Tversky. The theory suggests that individuals are more sensitive to losses than gains, and they tend to evaluate risks and opportunities differently depending on whether they are in "losing" or "gaining" mode. Prospect theory challenges traditional economic theory which assumes that individuals are always rational and make decisions based on maximum utility.

Within prospect theory, there are several key principles (Kahneman & Tversky, 2000) namely:

- **Editing**: Individuals divide the decision problem into phases and evaluate each phase separately.
- **Evaluation**: Individuals evaluate gains and losses differently. Gains are evaluated with a positive and curved value function, while losses are evaluated with a negative and linear value function.
- **Weighting**: Individuals give different weights to different probabilities. Low probabilities are often overestimated, while high probabilities are often underestimated.
- **Integration**: Individuals integrate information from the editing phase and evaluation phase to make a final decision.

Prospect theory has a significant impact on our understanding of economic behaviour especially in terms of (Kahneman & Tversky, 2000):

- **Risk aversion**: Individuals tend to avoid risk under profit conditions and seek risk under loss conditions.
- **Loss aversion**: Individuals feel the heartache of loss more than the happiness of gaining the same.
- **Framing**: The way information is presented can influence how individuals interpret the information and make decisions.
- **Overconfidence**: Individuals tend to overestimate their confidence in making judgments and predictions.

Prospect theory has also been applied in various fields (Thaler, 2008) namely:

- **Economics**: Prospect theory can be used to explain why individuals make decisions that seem irrational from a traditional economic point of view.
- **Finance**: Prospect theory can be used to understand investor behaviour and develop more effective investment strategies.
- **Marketing**: Prospect theory can be used to design more effective marketing campaigns by understanding how consumers make purchasing
• Public policy: Prospect theory can be used to design more effective public policies by understanding how individuals respond to incentives and risks.

g. Economy Social Behaviour

Social behavioural economics is a field of study that combines economics, psychology, and sociology to understand how norms, identities, and social interactions affect individual and collective economic behaviour. (Fehr, 2004). Social behavioural economics examines how social norms, group identity, and social influence individual economic behaviour (Camerer, 2003). (Camerer, 2003), such as:

- Consumption: How social norms and group preferences influence individual product and service choices.
- Finance: How group identity and trust norms influence saving, investing and borrowing decisions.
- Work: How work norms and fairness preferences affect employee motivation and productivity.
- Cooperation: How norms of reciprocity and trust affect cooperation and exchange in society.

In practice, social behavioural economics is widely used for various activities. Some activities that apply social behavioural economics (Kahneman & Tversky, 2000) namely:

- Promoting savings: Policies that utilize social norms to encourage savings, such as community savings programs or savings lotteries.
- Increase voter turnout: Campaigns that utilize group identity and norms of reciprocity to encourage voter turnout.
- Designing fair markets: Market design mechanisms that take into account equity preferences and trust norms to improve efficiency and welfare.

Social behavioural economics is also useful in several ways. Social behavioural economics is often used to (Kahneman & Tversky, 2000):

- Improving individual decision-making: Understanding the social factors that influence economic behaviour can help individuals make more rational and profitable decisions.
- Design more effective policies: Policies that consider social factors are more likely to be effective in achieving the desired goals.
- Promoting cooperation and well-being: Understanding social norms and preferences can help build more cooperative and prosperous communities.

Research in this area of social behavioural economics shows that individuals are more likely to follow group norms and behave according to social expectations, even when such behaviour is not necessarily in their own best interest. The field of behavioural economics is constantly evolving, with
new research emerging that explores different aspects of how individuals make decisions in an economic context. This research has important implications for our understanding of the economy and for the development of more effective policies and interventions.

Economic behavioural anomalies illustrate that individuals do not always act rationally and optimize utility as theorized in traditional economics. Various factors such as cognitive biases, emotions, and social norms play a significant role in individuals’ economic decisions. Understanding behavioural economics anomalies is useful in explaining why individuals often make seemingly illogical decisions and helps design more effective policies to achieve desired goals. Research on behavioural economics anomalies continues to grow, providing a deeper understanding of individual behaviour in an economic context.

It is known that the results of economic behaviour anomalies are not always negative. Sometimes, these anomalies even encourage individuals to make better decisions than predicted by traditional economic theory. Overall, the field of behavioural economics anomalies offers fascinating complexity, providing deeper insights into the way individuals make economic decisions.

Result and Discussion

**Economic Behavioural Anomalies in Cryptocurrency Transactions**

The COVID-19 pandemic that has hit the world since early 2020 has had a major impact on various aspects of life, including the economy. Amidst the uncertainty, global financial markets have been in turmoil, including digital asset markets such as cryptocurrencies. However, unexpectedly, this pandemic has triggered unexpected crypto transaction anomalies. Some of the things that trigger anomalies in cryptocurrency transactions (Ahmed, 2024) are:

1. **Shifting Investment Trends**
   Before the pandemic, cryptocurrencies were still considered a speculative and high-risk investment. However, the pandemic changed the investment landscape. Many people who have lost their jobs or experienced a decline in income are looking for new investment alternatives to diversify their portfolios and secure their finances. Cryptocurrencies, with their high return potential and lack of correlation with traditional markets, have become an attractive option for investors.

2. **Economic Stimulus and Excess Liquidation**
   Economic stimulus policies launched by various countries to cushion the impact of the pandemic triggered a surge in liquidity in the market. The abundance of cash encouraged investors to look for investment alternatives,
including cryptocurrencies. This led to a significant increase in trading volumes and prices of cryptocurrencies.

3. Economic Uncertainty and the Search for Safe Haven
The COVID-19 pandemic triggered significant global economic uncertainty. The value of fiat currencies (traditional currencies) experienced fluctuations and inflation. In this situation, some investors are looking for a safe haven for their assets. Cryptocurrencies, with their decentralized nature and lack of government control, are considered an attractive safe haven alternative.

4. The Role of Social Media and FOMO
Social media plays an important role in spreading information and sentiments related to cryptocurrencies. Many influencers and online communities are promoting cryptocurrencies and their potential to generate huge profits. This triggers FOMO (fear of missing out) among investors, encouraging them to buy cryptocurrencies before it’s too late.

Economic anomalies refer to deviations from the rational economic model. In the context of crypto transactions, some of the anomalies observed during the COVID-19 pandemic are (Ahmed, 2024) include:

1. The FOMO (Fear of Missing Out) effect: is a psychological phenomenon where individuals feel anxious or afraid of missing out on a potentially lucrative opportunity. In this case, investors rush to buy crypto assets for fear of missing out on a big profit opportunity.
2. Herding Behaviour: Herding behaviour refers to the tendency of individuals to follow the actions of others without conducting independent analysis or evaluation. Investors follow trends and buy crypto assets without conducting adequate fundamental analysis. Factors that Drive Herding Behaviour:
   - **Uncertainty:** In a volatile and uncertain market like the crypto market, investors may feel safer by following the actions of other investors.
   - **Lack of Information:** Investors who lack information about cryptocurrencies may tend to follow the strategies of other investors who are considered more experienced.
   - **FOMO (Fear of Missing Out):** The fear of missing out on potentially huge gains can drive investors to follow popular investment trends without doing adequate research.
3. Noise Trading: refers to trading activities in financial markets that are driven by irrelevant or inaccurate information, rumours, and speculation. In this case, investors make decisions based on rumours and speculation, rather than accurate information. Factors that Drive Noise Trading:
   - **Uncertainty:** In a volatile and uncertain market like the crypto market, investors may be more easily swayed by irrelevant information or rumours.
   - **Lack of Information:** Investors who lack information about cryptocurrencies may tend to follow rumours or speculation without doing adequate research.
   - **FOMO (Fear of Missing Out):** The fear of missing out on potential big
gains can drive investors to overreact to irrelevant information and make impulsive investment decisions.

4. **Overconfidence**: refers to the tendency of individuals to overestimate their ability or knowledge. Investors have overconfidence in their ability to predict the price of crypto assets. Factors that drive Overconfidence:
   - **Past Success**: Investors who have experienced success in cryptocurrency investing may become overconfident and believe that they can always make the right decisions.
   - **Lack of Information**: Investors who lack information about cryptocurrencies and their markets may have excessive faith in their ability to understand and predict market movements.
   - **FOMO (Fear of Missing Out)**: The fear of missing out on potential big gains can drive investors to make impulsive and overconfident decisions without considering the risks.

5. **Anchoring Bias**: refers to the tendency of individuals to rely too much on the initial information they receive when making decisions. Investors rely on the initial information they receive when making investment decisions. Factors that drive Anchoring Bias:
   - **Lack of Information**: Investors who lack information about cryptocurrencies may rely on the initial information they receive as the only reference to assess the value of the cryptocurrency.
   - **Uncertainty**: In an uncertain market like the crypto market, investors may seek early information to reduce uncertainty and make informed decisions.
   - **Visual Appearance**: Initial information presented in a visually appealing manner, such as high cryptocurrency prices, can anchor investors' thoughts and influence their decisions.

**Impacted of Cryptocurrency Transaction Anomalies**

The crypto transaction anomalies that occurred during the COVID-19 pandemic had a significant impact on the global and Indonesian economy. The spike in trading volumes and cryptocurrency prices triggered various consequences, both positive and negative, that stakeholders need to consider.

At the global level, these anomalies have increased financial market volatility, sparked concerns related to money laundering and terrorism financing, and prompted the development of new regulations by relevant authorities. On the other hand, cryptocurrencies also offer the potential to diversify investment portfolios, drive financial technology innovation, and open up new economic opportunities in various sectors. The economic behavioural anomalies observed in crypto markets, such as FOMO (fear of missing out), market manipulation, and irrational investor behaviour, have triggered significant regulatory implications at the global and national levels. In Indonesia, these anomalies triggered increased
public interest in cryptocurrencies, fuelled the growth of the local crypto industry, and sparked debates regarding regulation and its potential benefits and risks.

The influence of cryptocurrencies on the global economy is a multifaceted and continually developing topic. Although cryptocurrencies have the potential to affect the global economy in numerous ways, their impacts are still emerging and evolving. According to Shukla (2023), here are several ways cryptocurrencies can influence the global economy:

1. **Inclusive Finance**: Cryptocurrencies can offer financial services to the unbanked or those with limited access to banking services worldwide. This enhanced access to financial tools and services could promote economic participation and growth in underdeveloped regions.

2. **Remittances**: Cryptocurrencies can lower the cost and speed up cross-border remittances. Workers sending money back home can benefit from reduced fees, positively impacting the economies of recipient countries.

3. **Global Trade**: Some businesses are beginning to accept cryptocurrencies for international trade transactions. This could streamline cross-border payments and reduce currency conversion costs, improving the efficiency of global trade.

4. **Investment Opportunities**: Cryptocurrencies have emerged as an investment option for both institutional and individual investors. This could influence global capital flows and investment patterns.

5. **Monetary Policy and Central Banks**: Central banks are exploring the development of Central Bank Digital Currencies (CBDCs). The introduction of CBDCs could impact traditional monetary policies, currency exchange rates, and global financial stability.

6. **Innovation and Blockchain Technology**: Cryptocurrencies have driven innovation in blockchain technology. The application of blockchain is expanding across various sectors, potentially enhancing transparency, supply chain management, and data security globally.

7. **Speculation and Volatility**: The speculative nature of the cryptocurrency market can lead to significant price fluctuations. While this can create investment opportunities, it also carries risks and can influence market sentiment and stability.

8. **Regulatory Challenges**: Cryptocurrency regulations vary by country. Regulatory decisions can affect the global crypto market, with some countries embracing cryptocurrencies while others impose stricter controls.

9. **Tax and Reporting**: Governments are working to establish tax frameworks for cryptocurrencies, affecting individuals and businesses involved in the crypto space.

10. **Environmental Concerns**: Energy-intensive cryptocurrency mining operations have raised environmental issues. Efforts to address these concerns could impact global sustainability initiatives.

11. **Global Payment Infrastructure**: Innovations in blockchain technology and cryptocurrencies could shape the future of global payment systems, potentially challenging or complementing traditional financial infrastructure.
12. Financial System Resilience: Disruptions in the cryptocurrency market, such as major hacks or exchange failures, can have ripple effects on global financial stability.

More clearly, the impact of crypto transaction anomalies in the era of the COVID-19 pandemic according to economic experts include (Ahmed, 2024):

1. **Increased Market Volatility**: Trading volumes and prices of cryptocurrencies experience extreme fluctuations, creating a highly volatile market. This can increase risk for investors, especially new, inexperienced investors.

2. **Emergence of the "Pump and Dump" Phenomenon**: This anomaly triggers the emergence of the "pump and dump" phenomenon, where cryptocurrency prices are artificially inflated through promotion and market manipulation, then sharply lowered to reap profits for the manipulators.

3. **Regulatory Concerns**: The surge of activity in the cryptocurrency market is sparking concerns from regulators in various countries. Concerns related to money laundering, terrorism financing, and market manipulation are pushing regulators to strengthen regulations on cryptocurrencies.

While cryptocurrency transactions during the COVID-19 pandemic were an anomaly, the surge of interest and activity in the crypto market prompted regulatory authorities to consider new measures to protect investors, maintain financial market stability, and prevent potential cryptocurrency abuse. The impact of anomalies in the economic behaviour of cryptocurrency transactions for regulation is as follows (Ahmed, 2024):

1. **Rising Regulatory Concerns**: The surge in activity in the crypto market has sparked concerns from regulators in various countries regarding money laundering, terrorism financing, and market manipulation.

2. **Development of New Regulations**: Regulators in various countries are starting to develop new regulations for cryptocurrencies to address such concerns.

3. **Regulatory Uncertainty**: New regulatory concerns and developments can create uncertainty in the crypto market, which can affect investor interest and market stability.

**Anticipating Economic Behavioural Anomalies in Cryptocurrency Transactions**

Here are some ways to overcome economic behavioural anomalies in conducting cryptocurrency transactions (Peng, Prentice, Shams, & Sarker, 2024):

1. **Education and Awareness Raising**: Provide education and training on finance and crypto investment to investors, especially retail investors, to improve their understanding of risks, rational investment strategies, and how to avoid behavioural biases.

2. **Regulation and Compliance**: Implement clear and strong regulations to protect investors, prevent market manipulation, and ensure compliance with
3. **Technology and Tools:** Develop technologies and tools that help investors make more rational investment decisions, such as fundamental analysis platforms, risk simulation tools, and market behaviour indicators.

4. **Research and Development:** Conduct further research on economic behavioural anomalies in the crypto context and develop effective interventions to address them.

By understanding the unusual behavioural patterns in economics and applying appropriate strategies, we can face the crypto market with a calm and thoughtful attitude. Behavioural responses to market conditions will have a huge impact on making the right decisions so as to avoid various psychological traps that will affect our economic behaviour.

**Avoid Psychological Pitfalls in Crypto Investment**

By understanding the right strategies and steps, investors can navigate the crypto market more wisely, minimizing risks and increasing the chances of achieving investment goals. Here are some recommendations to avoid the psychological pitfalls of making cryptocurrency investments (Jeon, Kim, Park, & Jang, 2024):

1. **Conduct Research:** Before investing in cryptocurrencies, it is important to conduct in-depth research on the project, the technology, and the team behind it.
2. **Create an Investment Strategy:** Create a clear and disciplined investment strategy, and stick to it.
3. **Managing Emotions:** Don't let emotions like FOMO control investment decisions.
4. **Portfolio Diversification:** Diversify your investment portfolio by investing in different assets, including cryptocurrencies, to reduce risk.
5. **Critical Thinking:** Don't let popular investment trends or other people's opinions control your investment decisions.
6. **Manage Emotions:** Don't let emotions like FOMO or overconfidence control investment decisions.
7. **Consider Various Factors:** Don't rely solely on initial information when making investment decisions. Consider various factors, such as cryptocurrency fundamentals, market outlook, and the team behind the project.

**Conclusion**

The COVID-19 pandemic has changed the global economic landscape, and the cryptocurrency market is no exception. Economic behavioural anomalies, such as FOMO, herding behaviour, noise trading, overconfidence, and anchoring bias, are becoming more prevalent amidst this uncertain situation. They can also influence
crypto investors' decisions and result in market volatility, financial losses, and even asset bubbles. These anomalies can distort decision-making, encouraging investors to take impulsive and risky actions. Nonetheless, investing in crypto is a journey fraught with volatility and risk.

This research reveals the complexity of behavioural anomalies that have emerged in cryptocurrency transactions during the pandemic. Understanding these anomalies is key to minimizing their negative impact and building a more stable and sustainable future for crypto investment. Investor education, effective market regulation, and the development of innovative technologies are important solutions to overcome behavioural anomalies.

With the collective efforts of various parties, the cryptocurrency market can evolve into a healthier and more profitable ecosystem for all. Doing in-depth research, diversifying your portfolio, and staying consistent with your investment plan can help you avoid the emotional traps of "fear of missing out" (FOMO), going with the flow, trading on rumours, overconfidence, and the tendency to hold onto initial views.

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