

# 1<sup>st</sup> International Conference on Economy, Management, and Business (IC-EMBus)

VOL.1, 2023 p. 307-317

https://journal.trunojoyo.ac.id/icembus

# Crypto Investment: Phenomenology Study on Investor Behaviour

Devi Ferdina Anggraini<sup>1</sup>, Mohammad Nizarul Alim<sup>2</sup>

1,2 Accounting Department, Universitas Trunojoyo Madura

#### **Article Info**

#### Keywords:

Financial behavior, investment decision making, crypto, sharia fatwa

#### **Abstract**

In the world of crypto investment, fraud often occurs, one of which is due to people who do not understand the investment financial products that are followed. In the midst of the rise of crypto investment, sharia views on crypto investment still occur pros and cons between the views according to the Regional Board of Nahdlatul Ulama (PWNU) Jogja and the views according to the Majelis Tarjih and Tajdid of PP Muhammadiyah and Majelis Ulama Indonesia (MUI). This study aims to determine the existence of crypto investor behavior in making investment decisions that affect the results of their decisions and also reveal the law of crypto investment in a shariah perspective on investor behavior. The method used in this research is a qualitative research method with a phenomenological study approach. Data sources were obtained from interviews. The results showed that there was biased behavior in the application of Representativeness Heuristic and Anchoring & Adjusment Heuristic investor behavior. Whereas in the application of Availability Heuristic behavior, investors do not show biased behavior. From the application of behavior, the investment decision-making process can be identified starting from setting investment goals to evaluating investment performance. Judging from the investment mechanism, although crypto investment promises great benefits (maslahat), this investment can also bring great losses (mudharat).

E-ISSN: 3026-0965

 $\bowtie$  Authors

(\*) Corresponden Author

devitsaqif@gmail.com<sup>1</sup> nizarul@trunojoyo.ac.id<sup>2</sup>

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# Introduction

In Indonesia, the number of crypto asset investment enthusiasts is increasing every year. Based on survey data from Finder Crypto Adoption as of August 2022 to 26 countries, the number of Indonesian crypto asset holdings

reached 29.8 million with a 16% ownership percentage which is higher than the global average of 15% (Reported from Bappepti.go.id). However, in the midst of the rise of crypto investment, sharia views on crypto investment still have pros and cons. According to the Regional Board of Nahdlatul Ulama (PWNU) Jogja, crypto is allowed as an investment commodity (reported by WartaJogja.com). However, the Majelis Tarjih and Tajdid of PP Muhammadiyah and Majelis Ulama Indonesia (MUI) are of the view that crypto is haram as an investment tool because it contains gharar which is speculative in nature and the value of crypto has a high fluctuation value (reported by katadata.co.id).

In the world of crypto investment, fraud is also common. The latest report from research firm, Chainalysis, revealed that throughout 2021 fraud in the cryptocurrency world has reached a loss of more than US\$7.7 billion. Based on the statement of the Chairman of the OJK Investment Alert Task Force, Tongam L Tobing, in Kompas TV's Sapa Indonesia Weekend, crypto investment fraud occurs because from the community's side, which is very easy to get information via smart phones but is not followed by an increase in financial literacy so that people do not understand the investment financial products that are followed (reported by Kompas.com).

Behavioral finance according to Fuller, (1998) is a financial behavior that explains the behavior of individuals systematically making mental errors and wrong judgments when they invest their money. When a person's emotions and psychology

influence him in making decisions, individuals behave irrationally (Sadalia & Butar, 2016).

The problem in this study is that crypto investors who are research informants show different behaviors in their decision making. This can be seen from

the different decision results for each investor. Decision outcomes are influenced by financial behavior (Rahman & Yulian, 2022). Facing the currently declining crypto market, investors in the crypto market are also influenced by financial behavior in decision making. Financial actors are aware of individuals in making irrational decisions that will affect investment results (Sukandani et al., 2019).

When investors do not apply rational thinking when making decisions, the effects of heuristic bias must be identified because this bias will have an impact on the investment returns obtained (Siraji, 2019). In line with Das & Ahmed (2021) who

revealed that one of the behavioral finance factors, namely heuristics, affects crypto investment decisions. Heuristics refer to strategies, methods or other mental shortcuts, which can be used by an individual to obtain solutions in different complicated situations (Tversky & Kahneman, 1974).

This study aims to determine the existence of crypto investor behavior in making investment decisions that affect the results of their decisions. Seeing the differences in the behavior of each informant in investing that have been described previously, the researcher wants to explore more deeply what premise each informant applies that influences behavior in the decision-making process to result in different investment decisions. The informants chosen as the object of this research are 3 investors who are investing in crypto assets. In addition, researchers also want to reveal the law of crypto investment from a sharia perspective on informants' behavior when investing in crypto by comparing sharia fatwas in Indonesia.

#### **RESEARCH METHODS**

Researchers used a qualitative method with a phenomenological study approach. The subjects in the research in this study are 3 investors who are investing in cryptocurrency at the Binance company through the application. As for the research object that will be observed in this study is the behavior of investors when making crypto asset investment decisions and the views of investors on the law of crypto investment in a shariah perspective.

Data collection techniques using structured interview techniques Detailed data related to the profile of the interviewed informants are presented in the following table:

Name	Jobs	Investment Duration	Investment Status	Application	Additional Information
Informant M	Entrepren eurship	3 years	Active	Binance	Starting from2020 until now
Informant I	Factory Employee	6 years	Active	Binance	Starting from2017 until now
Inforant W	Crypto Investors	10 Years	Active	Binance and Tokocrypto	Starting from2013 until now.

Meanwhile, the data analysis technique used in this study adopts phenomenological data analysis from Husserl (1970) in Hamzah (2020) with four main stages including bracketing (epoche), identification of interview themes, identification of noema and noesis, and eidetic reduction.

#### **RESULT AND DISCUSSION**

# Crypto Investor Behavior in Investment Decision Making

Representativeness Heuristic Behavior

Based on the analysis of 3 informants, the reason that encourages investors to invest in crypto is because of the benefits that can increase income. Informants consider crypto investment to have higher returns than other types of investment despite its high risk. This belief is based on the current advances in transaction technology that make it easier for investors to make transactions using crypto as a means of payment so there is a possibility that crypto users will increase and the crypto market will increase in the future.

In this case, investors apply Representativeness Heuristic behavior in making investments where investors estimate the possibility of crypto market events will increase in the future along with the development of digital transaction systems using crypto. This representation arises when investors compare the crypto market increase graph in the event of advances in transaction technology using crypto today with the crypto market increase graph in the past when transaction technology using crypto has not progressed.

This behavior is in line with research by Siraji, (2019) which shows that investors also reconsider past results to be representative of what they can expect in the future. The increase in the crypto market graph from the past to the present is used as a representation by investors who believe they will gain profits in the future as crypto transaction technology develops.

In the application of behavior, there are indications that investors are exposed to insensitive bias to base rates that occur when in uncertain investment conditions, investors are too confident of getting profits without paying attention to possible losses (Sari, 2018). From the interview analysis, investors are indicated to be exposed to bias because they are overconfident of the future crypto market

increase and expect large profits. This bias appears driven by the investor's desire to get a large profit from the results of his crypto investment.

The results of research by Ekamevia & Sebayar, (2022) also show that investors tend to have strong motivation for speculative motives where respondents invest in cryptocurrency to increase their wealth because the profit level is more attractive and higher so they can increase their wealth more quickly.

In addition, the Representativeness Heuristic behavior in terms of company selection, analysis from 3 informants stated that the Binance company is considered the largest crypto company in the world that has the best reputation compared to other crypto companies. This reputation is assessed based on the ease of access to the Binance application that can be reached by investors from various countries and has a variety of platforms that support digital crypto transactions with flexible transaction rules where transactions can be carried out freely between buyers and sellers without any review from the company.

There are indications that investors experience one of these heuristic biases, namely bias insensitive to sample size which occurs when individuals ignore sample

size in making decisions (Sari, 2018). In this case, investors give an assessment that the Binance company is the best crypto company in the world because of its recognized reputation according to Coin Market Cap, but on the other hand investors

do not pay attention to the legal basis that applies in Indonesia where according to Widianti & Iskandar, (2023) the Binance company is still not legally registered with Bappebti so that everything that happens while investing in Binance will not be protected by state law.

This indication of bias is also found in the informants' behavior regarding the performance assessment of one type of crypto asset with other types of crypto to be used as a representative in choosing the type of crypto to invest in. Some informants in this study decided to only invest in one type of crypto, namely bitcoin, without diversifying into other types of crypto assets. This decision is based on Bitcoin's reputation as the most popular crypto type among other crypto types. On the other hand, one of the informants applies Representativeness Heuristic behavior well when investing in crypto Informant W diversifies assets by investing in several typesof crypto assets that have good market capitalization such as BNB, etherium and USDT.

This heuristic behavior is in line with research by Khan et al., (2020) which confirms that the investment behavior of investors in Pakistan is also influenced by various psychological biases and heuristics where they invest in securities based on similar characteristics such as past returns, type of management, and reputation companies that can lead to poor investment decisions. In accordance with the previous analysis, investors will risk being biased in making investment decisions if they only invest based on representative characteristics such as choosing companies with a large reputation without paying attention to legal regulations in Indonesia and choosing the type of crypto based on the one that is most in demand without trying to analyze other types of crypto and not diversifying assets.

#### Availability Heuristic Behavior

Based on the interview analysis, the three informants get information from crypto communities through social media. Informants learn a lot about crypto investment from fellow crypto experts in the community. Information obtained from the community usually includes tutorials on how to invest properly, the right time to invest, information related to types of crypto and crypto projects.

Apart from the community, informants also rely on information from crypto

candle sticks that contain information on the ups and downs of crypto prices, global economic news, and through YouTube videos related to crypto investment. Informants take advantage of the community they follow to learn crypto candle-candle stick analysis so that in making investments, informants can conduct their own analysis through candle-candle sticks to make decisions to sell or buy crypto at the right time. Information from YouTube media and global economic news is also used as a reference for informants in making investments. Informants can learn crypto investment tutorials and get updated crypto information through YouTube and

utilize global economic news as a reference for informants to decide when to buy or sell crypto.

Therefore, the three informants are considered to have implemented the Availability Heuristic behavior well so that in its application they do not experience behavioral biases that can make wrong investment decisions. Although informants rely on information that is available and easily obtained from a community of fellow crypto experts, informants still look for other alternative information to avoid the risk of misinformation caused by relying on only one source of information.

In line with research by Kurniawati & Sutrisno, (2019) which shows that investors are not affected by Availability bias where respondents who are investors in Yogyakarta are not influenced by the information available but also carry out analysis of the information obtained with the aim of obtaining the accuracy and reliability of the information received .

# Anchoring & Adjusment Heuristic Behavior

Anchoring & Adjusment Heuristic is an individual thinking strategy by estimating estimates based on known initial values and then adjustments are made based on subsequent information until a final decision is acceptable (Tversky & Kahneman, 1974). Anchoring bias occurs generally due to the investor's fixation on initial information which is used as a basis for estimating possibilities that occur in the future (Praditha & Nusantara, 2020).

In applying behavior, Informants I & M are indicated to be affected by behavioral bias where informants only apply anchoring behavior (estimation based on initial value) without making adjustments. In carrying out investments, informant I sets targets in estimating profits by analyzing candle sticks without making adjustments to the latest conditions in the field that cause the crypto market to fall. When conducting analysis, I uses the method that is always used, namely storing crypto when the candle position is down and selling the asset when the candle position is up.

Likewise, Informant M only relies on crypto prices during the Bitcoin Halving

moment in the past to sell his crypto assets when the Bitcoin Halving moment occurs again without conducting technical analysis in making investments. M believes that the pattern of crypto price increases during future Bitcoin Halving will also be similar to the pattern during past Bitcoin Halving moments. Although the information on the

increase in crypto prices during Bitcoin Halving is justified in accordance with the predictions of crypto experts and supported by research by Meynkhard, (2019) which explains that Bitcoin Halving can drive an increase in the market value of cryptocurrencies, as an investor it is necessary to make adjustments to the initial value estimate that has been set to avoid adverse investment performance due to unexpected changes in crypto market conditions. Investors are said to experience bias if they only rely on existing investment purchase price information and ignore existing new information (Sudani & Pertiwi, 2022).

In contrast to informant W who performs anchoring & adjustment heuristic

behavior well. Informant W invests based on crypto price information on Bitcoin Halving in the past as a benchmark for selling crypto assets in the future which is predicted to increase. However, informant W also makes adjustments to information from global economic news where when good news occurs W will sell assets and W will buy assets when bad news occurs. In addition, informant W also analyzes a crypto community first to ensure that the community to be followed supports the aspirations of investors and implements a long-term investment system.

In accordance with the results of research by Sudani & Pertiwi, (2022) which shows that investors in the research did not experience anchoring bias because investors were not influenced by the initial value given and compared it with future values. Apart from that, the research results of Shaleha et al., (2022) show that Anchoring bias does not influence investors' investment decision making in MNC Trade Kendari City because investors in MNC Trade Kendari City do not use initial assessments of an investment to make estimates when buying or selling the investment.

# Crypto Investment Decision-Making Process

According to Tandelilin, (2016) the investment decision process is a continuous decision process (going process) consisting of five decision stages that run continuously until the best investment decision is reached, namely as follows:

# 1. Determination of investment objectives

In this study, the three informants decided to invest in crypto because of the motivation to get huge profits from this investment. The informants believe that although crypto investment has a high risk, it can also bring profits that are many times higher than other types of investment. In applying the Representativeness Heuristic behavior at this stage, there are indications that investors are exposed to insensitive bias to base rates that occur when in uncertain investment conditions, investors are too confident that they will get profits without paying attention to possible losses (Sari, 2018).

# 2. Determination of investment policy

In this study, all three informants chose to make long-term investments by purchasing & storing crypto assets when market conditions drop and then selling them when the crypto market rises. However, technically, the three informants apply different investment mechanisms with different information management. Informant M invests by implementing a dollar costing system, namely buying crypto assets of 2 million rupiah every week, which will then be sold if the crypto market rises. In contrast to informant I who will buy crypto if he has more funds that are not used then the asset will be sold if the crypto candle stick position rises and the profit has reached the desired target. Meanwhile, informant W invests by utilizing global economic news as a basis for buying or selling his crypto.

In addition, the three informants implemented a policy by investing in crypto in the Binance company which is considered to have the best reputation as the largest crypto company in the world. However, in the application of Representativeness Heuristic behavior, the three informants indicated bias because investors did not pay attention to the legal basis that applies in Indonesia where the Binance company is still not legally registered with Bappebti so that everything that happens while investing in Binance will not be protected by state law.

# 3. Portfolio strategy selection.

In this study, the three informants used an active portfolio strategy. The three informants monitor crypto market movements by relying on information from fellow crypto experts in the crypto communities they follow. Usually the information

shared includes information about the latest crypto market conditions, crypto projects that will be released, choosing the right time to buy/sell crypto and so on. In applying the Availability Heuristic behavior, the three informants are not exposed to bias because apart from the community, informants also rely on information from crypto candle sticks that contain information on the ups and downs of crypto prices, information from global economic news by utilizing good/bad news situations to make crypto sales/purchases, and information through YouTube videos related to the development of updated crypto information.

# Asset selection and portfolio formation.

In this study, the three informants conducted crypto analysis by looking at good fundamentals with profitable projects, the most stable price increases, many enthusiasts and the community built to support investors' aspirations. All three informants chose Bitcoin as a tool for investment. In applying the Representativeness Heuristic behavior, only informant W is not exposed to bias because W also diversifies by investing in other types of crypto besides Bitcoin, namely ethereum, BNB and USDT.

### 5. Measurement and evaluation of portfolio performance.

This stage is the final stage of the investment decision process. All three informants evaluate their crypto buying and selling activities. In determining the timing of sales, the three informants implement different time plans. Informants M & W make crypto sales during the Bitcoin Halving moment in the future by using the basis of crypto price information at the Bitcoin Halving moment in the past when crypto experienced an increase in price at this moment. M & W increase crypto purchases when the market goes down and then sell assets when the Bitcoin Halving moment occurs to make a profit. This is based on the fact that informants M & W have experienced investment losses due to errors in timing strategies in making investments and being trapped in crypto investment scams that bring losses.

Meanwhile, informant I sells crypto assets when the profit has reached the target set with a strong belief in the increase in crypto prices in the future due to predictions of advances in transaction technology by analyzing crypto candle sticks.

Informant I decided to set a profit target in selling his crypto assets due to his past experience of selling crypto in a hurry when it had not reached the highest price and had not reached the desired profit target so that the profit obtained was not maximized.

### Perspective of Sharia Fatwa on Investor Behavior

In his view, Informant M only follows the existing fatwa and has confidence that every halal crypto fatwa issued by the ulama must be accountable. In contrast to informants I & W who have their own thoughts regarding the law of crypto investment. Informants I & W are of the view that although crypto is intangible, it also has uses for investment just like investing in stocks and digital gold. In addition, informants I & W consider that as long as crypto is not obtained from stolen products and is not used to make harmful transactions, crypto is not a problem. According to MUI, crypto does not meet the requirements of sil'ah because it is intangible, has no value and uncertain ownership rights so that crypto is considered invalid as a commodity that is traded (Fitri & Ismail, 2019). In contrast, the NU Yogyakarta fatwa states that crypto is considered to meet the requirements of sil'ah because crypto transactions can be seen through the blockchain and the digital form of crypto is considered to be handed over by crypto users (Wahyudi, 2022).

However, while investing in crypto, informants have experienced losses

due

to being trapped in high investment risks. Informant M once suffered a loss because he made the wrong investment when the crypto market rose and was forced to sell

his crypto assets at a price lower than the purchase price. Meanwhile, informant I only made a small profit because the crypto market was experiencing a significant decline, so I chose to hold his assets by predicting that the market would increase in

the future. Unconsciously, I is actually trapped between the risk of loss or profitable return because after all, the future development of the crypto market cannot be predicted precisely. Lastly, despite more profits, informant W once obtained a loss of up to 80% because he was deceived by an unprofitable crypto project.

So it can be concluded that although crypto investment promises great benefits (maslahat), this investment can also bring great losses (mudharat). In line with the results of research by Setiawan, (2020) shows that the cryptocurrency market can generate relatively high profits but the price of the currency can also experience a relatively large decline. This is in accordance with the MUI statement which states that crypto investment is gharar which is detrimental to investors (Basywar & Amdar, 2021). Gharar means transactions that have no certainty as a result of unfulfilled sharia provisions that cause losses (Fitri & Ismail, 2019). Cryptocurrency has the nature of gharar or uncertainty because cryptocurrency is just numbers without any assets that guarantee or without underlying assets (Wahyudi, 2022). In addition, crypto investment is considered only as a speculation tool with a game to lose not from a business that produces (reported by MUI SUMBAR).

#### CONCLUSION

Application of crypto asset investor behavior in investment decision making. The results showed that there is biased behavior in the application of Representativeness Heuristic and Anchoring & Adjusment Heuristic behaviors of investors. Meanwhile, in the application of Availability Heuristic behavior, investors do not show biased behavior. From the description of each informant's behavior, the crypto investment decision-making process carried out by informants adjusted to the theory of the investment decision-making process according to Tandelilin, (2016) includes:

- 1. Determination of Investment Objectives,
- 2. Determination of investment policy.
- 3. Portfolio strategy selection.
- 4. Asset selection and portfolio formation.
- 5. Portfolio performance measurement and evaluation

# Legal perspective of sharia fatwa on crypto investor behavior

Analysis of the views of the informants stated that the sharia law of crypto investment is not a problem even though several Indonesian fatwas state that crypto investment is haram. However, when viewed from the investment mechanism carried out and the investment results obtained based on interview analysis, it shows that there are several things that are done that deviate from the rules in line with the

MUI statement which states that crypto investment is gharar which is detrimental to investors because cryptocurrency is just numbers without any assets that guarantee or without underlying assets and is considered only as a means of speculation with a game to lose not from a business that produces.

#### REFERENCE

- Afrizal & Marliyah. (2021). Analisis Terhadap Cryptocurrency (Perspektif Mata Uang, Hukum, Ekonomi Dan Syariah). Jurnal Ekonomi Manajemen dan Bisnis, 22(2)
- Ahmad, M.. & Shah, S.Z.A. (2022), Overconfidence heuristic-driven bias in investment decision-making and performance: mediating effects of risk perception and moderating effects of financial literacy. Journal of Economic and Administrative Sciences, 38(1), 60-90. https://doi.org/10.1108/JEAS-07-2020-0116
- Basywar, M., & Amdar, F. (2021). Fatwa-Fatwa Transaksi Digital: Studi Komparatif Fatwa NU dan Muhammadiyah. Jurnal Al-Kharaj: Studi Ekonomi Syariah, Muamalah, dan Hukum Ekonomi, 1(1), 62-75. doi:https://doi.org/10.30863/alkharaj.v1i1.1545
- Burhanuddin, S.F (2022). Transaksi cryptocurrency: Bagaimana pandangan hukum ekonomi islam memandang?. Jurnal Ilmiah Akuntansi dan Keuangan. 4(7).
- Das, S., & Ahmed, S.S. (2021). Behavioral Finance in Crypto Currency Market: An Integrated and Empirical Investigation. Turkish Online Journal of Qualitative Inquiry (TOJQI). 12(10)
- Diasca, Y et al. (2021). Tinjauan Teknologi Blockchain Dalam Audit Cryptocurrency. Prosiding The 12th Industrial Research Workshop and National Seminar Bandung.
- Ekamevia & Sebayang. (2022). Preferensi Masyarakat mengenai Cryptocurrency sebagai Alat Investasi di Masa Mendatang. Bandung Conference Series: Economics Studies. 2(2), 488-497
- Fitri, R.J., & Ismail, M.S. (2019). Transaksi Bitcoin dalam Perspektif Ekonomi Syariah. ISTIKHLAF: Jurnal Ekonomi, Perbankan dan Manajemen Syariah. 5(1), 72 97
- Fuller, R. J. (1998). *Behavioral Finance and the Sources of Alpha*. Journal of Pension Plan Investing, 2(3)
- Hamzah, A. (2020). *Metode Penelitian Fenomologi: Kajian Filsafat Ilmu Pengetahuan.* Malang. Literasi Nusantara
- Ichnasi & Mahendra. (2022). Return and Risk Analysis on Cryptocurrency Assets. Scientific Journal of Management. 10(1), 149 – 160
- Inayah, I.N. (2020). *Prinsip-Prinsip Ekonomi Islam dalam Investasi Syariah*. Jurnal Ilmu Akuntansi dan Bisnis Syariah. 2(2)
- Jufridar., Ilham, R.N., & Sinurat, M (2021). Analisis Potensi dan Risiko Investasi pada Instrumen Keuangan dan Aset Digital Cryptocurrency di Indonesia. Jurnal Ekonomi dan Manajemen Teknologi (EMT), 5(1), 91-98
- Khan, I., Afeef, M., Jan, S., & Ihsan, A. (2020). The impact of heuristic biases on investors' investment decision in Pakistan stock market: moderating role of long term orientation. Department of Management Science, Islamia College Peshawar.
- Khan, I. (2021). Behavioral factors influencing investment decisions of institutional investors: Evidence from asset management industry in Pakistan. Ilkogretim Online Elementary Education Online. 20(2), 603-614
- Kurniawati, D., & Sutrisno, S. (2019). THE BENCHMARK OF INVESTOR DECISIONS TO INVEST IN THE INITIAL PUBLIC OFFERING (IPO). Riset Akuntansi dan Keuangan Indonesia.
- Lubis, T.A. (2016). Manajemen Investasi dan Perilaku Keuangan: Pendekatan Teoritis dan Empiris. Jambi. Salim Media Indonesia.

- Meynkhard, A. (2019). Fair market value of bitcoin: halving effect. Investment Management and Financial Innovations, 16(4), 72-85.
- Pompian, M. M. (2006). Behavioural Finance and Wealth Management: How to Built Optimal Portfolios That Account for Investor Biases. New Jersey: John Wiley & Sons, Inc.
- Pardiansyah, E. (2017). *Investasi dalam Perspektif Ekonomi Islam: Pendekatan Teoritis dan Empiris.* Economica: Jurnal Ekonomi Islam . 8(2)
- Prosad, J. M., Kapoor, S. & Sengupta, J. (2015). Theory of behavioral finance. Handbook of Research on Behavioral Finance and Investment Strategies: Decision Making in the Financial Industry, 1-24
- Purnamasari, L., Kurniawati, S.L., & Silvi, M. (2009). *Interdependensi Antara Keputusan Investasi, Keputusan Pendanaan dan Keputusan Dividen.*Jurnal Keuangan dan Perbankan. 13(1)
- Rahman, K., & Yulian, T.N. (2022). Pengaruh Perilaku Keuangan dan Pendapatan terhadap Keputusan Investasi Saat Pandemi Covid 19 dengan Literasi Keuangan sebagai Variabel Intervening. Jurnal Ekonomi, Keuangan dan Manajemen. 18(1)
- Sadalia, I & Butar, N.A. (2016). Perilaku Keuangan: Teori dan Implementasi. Medan: Pustaka Bangsa press.
- Sari, R.C. (2018). Akuntansi Keperilakuan: Teori dan Implikasi. Yogyakarta. CV Andi Offset
- Setiawan, E.P. (2020). Analisis Potensi dan Risiko Investasi Cryptocurrency di Indonesia. Jurnal Manajemen Teknologi, 19(2),130-144
- Shaleha, W.M., Hakim, A.A.A., Ramia, S. (2022). Pengaruh Anchoring Bias dan Loss Aversion Terhadap Keputusan Investasi Investor di MNC Trade Syariah Kota Kendari. TRANSFORMASI: Jurnal of Management, Administration, Education & Religius Affair. 5(2)
- Siraji, M. (2019). Heuristics Bias and Investment Performance: Does Age Matter? Evidence from Colombo Stock Exchange. Asian Journal of Economics, Business and Accounting, 12(4), 1–14.
- Sudani, F.S., & Pertiwi, I.F.P. (2022). Financial Information Analysis to Minimize Availability Bias, Representative Bias, Anchoring Bias and Adjustment Bias, and Overconfidence Bias in Ivestment Decision Making (Study on Investors at the Sharia Investment Gallery of UIN Raden Mas Said Surakarta). Social Science Studies . 2(5), 446-460.
- Sukandani, Y., Istikhoroh, S., & Waryanto, R.B.D. (2019). *Behavioral Finance Pada Proses Pengambilan Keputusan Investasi*. SNHRP, 150–156.
- Tandelilin, E. (2016). Manajemen Investasi. Tangerang Selatan: Universitas Terbuka.
- Tversky, A., & Kahneman, D. (1974). *Judgment under uncertainty: Heuristics and biases*. Science, 185(4157), 1124–1131
- Wahyudi, A. (2022). Studi Komparatif Hasil Putusan Lembaga Bahtsul Masail Nahdlatul Ulama Jawa Timur dan Lembaga Bahtsul Masail Nahdlatul Ulama Yogyakarta Tentang Hukum Cryptocurrency. Tugas Akhir. Semarang: Fakultas Syariah dan Hukum Universitas Islam Negeri Walisongo.
- Widianti, I.A & Iskandar, H. (2023). Perlindungan Hukum Bagi Investor Dalam Transaksi Cryptocurrency Pada Aplikasi Binance Di Indonesia. Jurnal Ilmu Syari'ah, Perundang-Undangan dan Ekonomi Islam, 15(1), 41-54.
- https://finance.detik.com/fintech/d-6361316/transaksi-kripto-ri-turun-57-jadi-rp-266-triliun-hype-nya-sudah-pudar. "Transaksi Kripto RI Turun 57% Jadi Rp 266 Triliun, Hype-nya Sudah Pudar?". Accessed on date November 1, 2022.

- https://warta-jogja.com/lbm-pwnu-diy-cryptocurrency-diperbolehkan/. "LBM PWNU DIY: Cryptocurrency Diperbolehkan,". Accessed on date November 30, 2022.
- https://katadata.co.id/dinihariyanti/finansial/626a63c70612e/hukum-investasi-kripto-dalam-islam. "Hukum Investasi Crypto dalam Hukum Islam". Accessed on date November 30, 2022.
- https://www.kompas.tv/article/251771/mudahnya-penawaran-melalui-media-sosialjadi-satu-penyebab-terjadinya-penipuan-modus-kripto. "Mudahnya Penawaran Melalui Media Sosial Jadi Satu Penyebab Terjadinya Penipuan Modus". Accessed on date Oktober 14, 2022.
- https://m.muisumbar.or.id/baca-181-11-poin-mui-tentang-bitcoin-yang-diharamkan-sebagai-investasi.html. "11 Poin MUI tentang Bitcoin yang Diharamkan Sebagai Investasi". Accessed on date July 30, 2023.