



Uncovering the Perception of Digital Gold as Islamic Investment

Ahmad Tibrizi Soni Wicaksono, Budi Eko Soetjipto*

Universitas Negeri Malang, Indonesia

**Corresponding Author: ahmad.tibrizi.2404139@students.um.ac.id*

Abstract:

This study aims to identify sentiments related to digital gold as Islamic investment in social media users. The study used Word cloud analysis, Sankey diagrams and sentiment dominance portion assessment through a natural language processing (NLP) approach. The study processed 1433 user responses from Facebook, Instagram, TikTok, X, and YouTube over the past year. The results show that there is scepticism in understanding Islamic investment through digital gold. Instagram, YouTube, and Tiktok are social media that dominate negative sentiment. Sentiment analysis shows that negative sentiment dominates the perception of social media users with a portion of 64.69%. The implications of the study direct the importance of public education to avoid a decline in investment interest. The limitations of the study include the range of opinions in one country using only five social media.

Keywords: Sentiment Analysis, Perception, Islamic Investment, Digital Gold

JEL Classification Code: G41, E22, F21, G11

1. Introduction

The development of investment in Islamic finance has presented opportunities for increasing financial literacy in the Muslim community (Dharma et al., 2024). Islamic investment offers a variety of products, including Sharia deposits, sukuk, Sharia stocks, Sharia mutual funds, and gold (Maghyereh et al., 2019; Yarovaya et al., 2021). Erratic economic growth has increased the level of awareness of Islamic investment, especially regarding the selection of gold as the safest hedge against economic turbulence (Beckmann et al., 2019; Chiang, 2022). Gold investment has long been recognized in conventional and Islamic finance for its role in portfolio diversification and risk mitigation (Lei et al., 2023; Yousfi et al., 2024). Islamic finance has the fundamental principle of avoiding illicit investments that are considered haram (Belhaj, 2018). Gold is an asset that is not only attractive as a store of value but also complies with Islamic teachings by emphasizing ethical investment practices rooted in social responsibility and justice (Begam et al., 2024; Robiyanto, 2018).

Muslim investors consider Islamic investment patterns with a high demand for Islamic financial products (Juisin et al., 2023), thereby increasing investor confidence in gold as a must-owned asset. Gold has been identified as the most suitable hedging instrument and safe haven in the face of uncertain market and economic conditions (Rizvi & Ali, 2022; Tuna, 2019). The use of gold as an investment instrument has become an attraction for Muslim investors in placing it as an important element for investment portfolios (Akbar et al., 2019;



Naeem et al., 2021), because gold is not only in accordance with the recommendations of Islam but also plays a role in maintaining portfolio (Maghyereh et al., 2019; Robiyanto et al., 2019).

The integration of gold into Islamic financial products has driven an increase in Islamic investment portfolio assets (F. Ali et al., 2021; Cheong, 2018). Gold is a strong supporting instrument in Islamic investment (Rusmita et al., 2024; Sakti et al., 2018). In addition, gold is also able to provide competitive returns (Trabelsi et al., 2021), so it can be an attraction for Muslim investors who want to remain compliant with sharia compliance but have high profitability potential (Anita & Aree, 2022; Supriani et al., 2022). The development of gold investment has given birth to digital gold product innovations with the support of physical gold (Tamara et al., 2023), thus presenting various new options for Muslim investors with a high understanding of financial and technological literacy (Ezahar et al., 2020; Mnif & Jarboui, 2021; Widjaja et al., 2024).

Islamic investment innovation through the purchase of digital gold is a development in the evolution of the Islamic financial landscape (Saffuan et al., 2024). Digital gold innovation has created various opportunities for Muslim investors to reach various investment options in accordance with Islamic principles and ease of transactions (Kurniawan et al., 2024; Sunitha & Nayak, 2025). The development of Islamic Finance and Technology has facilitated the emergence of innovative financial products (Kilic, 2023), including digital gold investment platforms based on Islamic principles that emphasize ethical finance and the prohibition of usury.

The increased tendency to buy digital gold indicates a change in investors' Islamic investment behavior (S. Ali et al., 2024; Aloui et al., 2021). Digital Gold is an online representative of physical gold that offers convenience and accessibility compared to traditional gold (Suchitra et al., 2025). Additionally, the ease of investing through digital platforms contributes significantly to sustainable investment in digital gold options (Indrawati et al., 2023; Sulistiyani et al., 2024). Moreover, some millennials and Z have positioned digital gold investments as both traditional and profitable assets in the long-term amid economic fluctuations (Fahrudin et al., 2021; Mardhiyah, 2025). However, this investment also emphasizes the need for strong consumer protection in digital transactions, especially in developing countries (Suprapdi & Mujib, 2023).

Digital gold investment has the potential to present various security risks digitally (Sunitha & Nayak, 2025). Digital security risks can cause losses for investors by being ensnared in fraudulent schemes or hacking (Soi et al., 2023; Tamara et al., 2023). In addition, digital gold has weaknesses in physical form that are not received by investors directly, so investors have concerns and doubts about the aspect of sharia compliance (Ma'ruf et al., 2023). Then, unrepresentative e-commerce transaction patterns can also reduce investor confidence in digital gold purchases (Haritha, 2023). In addition, investing in



digital gold requires a good knowledge of financial literacy compared to traditional investment (Sulistiyan et al., 2024; Susanti et al., 2023).

Digital innovation offers investors to invest in gold easily without storing physical form (Fahrudin et al., 2021; Soi et al., 2023). In addition, digital gold provides a simple transaction process through various digital platforms that reach investors without time and space limitations (Brady, 2007; Soi et al., 2023). In fact, digital gold provides a fast asset sale facility, so it has a high liquidity advantage (Indrawati et al., 2023; Rezaldo, 2025). In addition, various digital gold investment platforms have provided strict security, so investors can avoid various adverse actions (Gurbaxani, 2023).

Researchers have conducted various studies related to digital gold in the context of understanding investment decisions, intentions and benefits (Badshah et al., 2023; Fahrudin et al., 2021; Gurbaxani, 2023; Tamara et al., 2023). Moreover, Ma'ruf et al. (2023), Zakir et al. (2023) and Saffuan et al. (2024) have conducted studies on aspects of sharia compliance in digital gold investment. In addition, Gurbaxani (2023) and Mullan (2014) also conducted studies related to various disadvantages and advantages of investment placement in digital gold. However, the study aims to reveal public sentiment on social media related to digital gold as an Islamic investment.

2. Literature Review

The digitization of investment in Islamic finance has developed rapidly through technological advancements (Anwer et al., 2019; Kanwal et al., 2023; Nagimova, 2022). The integration of Islamic finance and technology plays an important role in increasing the reach of Islamic financial investment (Sholeh, 2023; Supriadi et al., 2024). Innovation in Islamic finance has encouraged the birth of various services, such as digital banks, crowdfunding, peer-to-peer lending, and digital investment (Fu, 2024; Respati et al., 2024). This phenomenon shows that Islamic financial products have good adaptability in creating modern investment opportunities. However, it still considers adherence to Islamic principles (Ajouz & Abuamria, 2023; Kılıç, 2023).

Islamic investment views Islamic principles as being fundamental (Billah, 2019). Compliance will bring social responsible ethical investment practices by paying attention to prohibitions on Islamic principles (Beddu et al., 2023; Tubagus, 2024). Investments that involve excessive risk, speculation, or unethical industries with involvement in alcohol, gambling, fraud, and other things that are prohibited by Islam (Alqahtani & Mayes, 2017; Muhtadi & Adinugraha, 2022). Thus, Islamic investment digital platforms focus on benefits for the community and investors by ensuring the transparency and traceability of transactions (Hasyim et al., 2024; Siswantoro & Mahmud, 2023). Islamic investment digital platforms also focus on providing efficient and user-friendly services by maintaining adherence to Islamic principles (Kılıç, 2023).



The digitalization of Islamic investment has presented the complexity of public sentiment in the implementation process (Haidar, 2024). Not all community groups are ready or receptive to changes in investment behavior that adopt digital innovations (Webber et al., 2022). The development of investment digital innovation is greatly influenced by personal factors and investor culture, and not just the level of digital financial literacy (Awaluddin et al., 2023; Joshi & Rawat, 2024). In addition, the affordability of technology adoption encourages investment behavior (Darban & Amirkhiz, 2015). Investment attitudes and preferences are also highly dependent on digital and social media interactions, which shape investor perceptions (Mishra et al., 2022). Moreover, Investors' dependence on digitalization is highly correlated with the selection of technology-based investment instruments (Bader et al., 2021).

The development of financial literacy has an important role in influencing investors in making digital investment decisions (Joshi & Rawat, 2024; Zhang & Sidik, 2024). Investors with high levels of literacy tend to accept various views of new investment patterns that keep pace with the times (Mishra et al., 2022). In addition, the generation gap between investors presents various dynamics of investment patterns that tend to lead to more comfortable, socially responsible and sustainable patterns influenced by the intensity of digital interaction (Bajrachrya & Samdani, 2021; Malzara et al., 2023).

Digital transformation has brought investment innovations in digital gold instruments by considering market accessibility (Gurbaxani et al., 2023; Yang, 2024). The emergence of digital gold has been initiated by cryptocurrency products that are backed by physical gold (Irfan et al., 2023; Jalan et al., 2021; Snene Manzli & Jeribi, 2024), so that one coin is worth one gram of gold (Iman & Samsuri, 2022; Nugroho, 2023). This pattern aims to expand the reach of investors who are categorized as young and consider the convenience, speed and convenience of investing as the main factors (Tamara et al., 2023), so that the presence of a digital gold investment platform can be a solution for the younger generation to invest in gold without being constrained by physical storage (Suchitra et al., 2025).

The younger generation of Millennials and Z have the intention to invest in digital gold, because they are used to interacting digitally (Ripada, 2020), so they have a better aspect of investment psychology to be involved in digital investment (Kustina, 2025). In fact, the confidence of young investors is increasing when the process made in transactions is getting easier and simpler (Pribowo & Fathihani, 2023). In addition, investment costs that are cheaper than physical investments are also an important consideration in shaping the perception of young investors in investing digitally (Kraus et al., 2024; Nwankpa & Merhout, 2020).

3. Research Methods

This study aims to express public sentiment on social media related to digital gold investment as an Islamic investment. This study used a text mining method to obtain data from various social media platforms, including X, Instagram, Facebook, TikTok, and YouTube, in the context of conversations discussing and responding to digital gold investment over the past year. At the thematic stage, this study applied word cloud analysis to reveal the most dominant terms in the issue of digital gold investment (Lee et al., 2020; Zakaria et al., 2022). The second stage, this study applied analysis on Sankey's diagram to map the flow of sentiment on various social media (de-Córdoba & Molinari, 2022; Wang et al., 2017), thus allowing researchers to identify patterns and insights related to the relationship between the responses of various social media to each type of sentiment (Otto et al., 2022). The third stage is to conduct sentiment analysis using the Natural Language Processing (NLP) approach to reveal the existence of negative, and positive sentiments with the following framework.

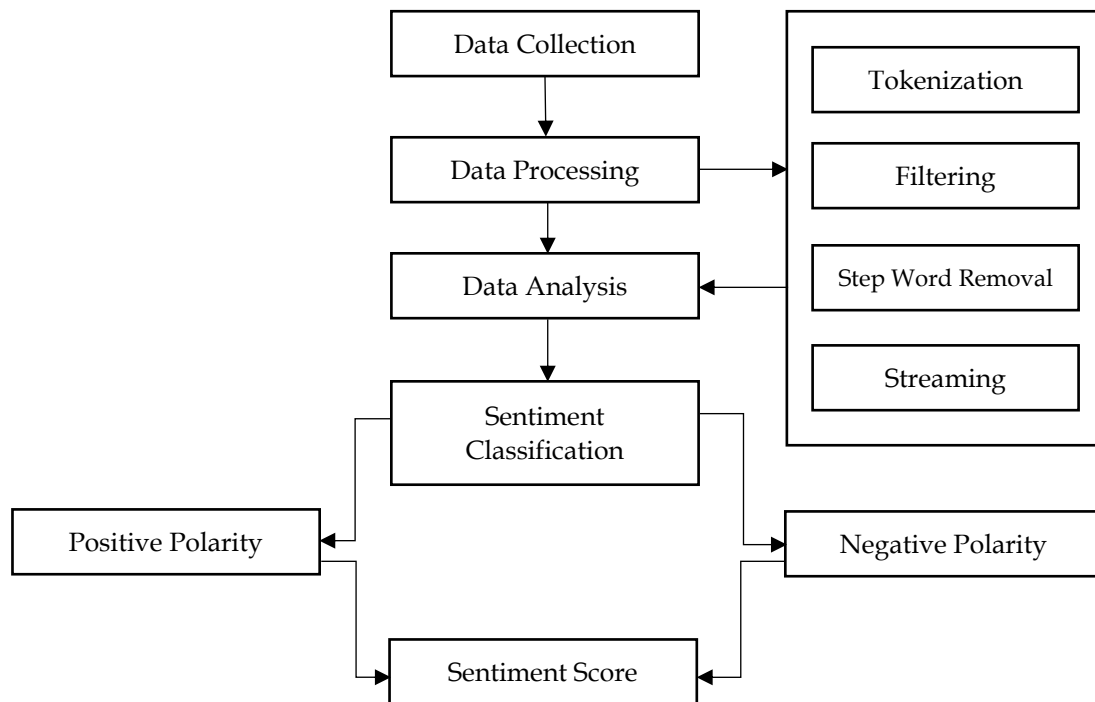


Figure 1: Analysis Sentiment Frameworks

Note: Verma & Thakur (2018)

The sentiment analysis process includes systematic stages to evaluate emotional polarity data as depicted in the flowchart. In the initial stage, this analysis collects data by collecting raw textual inputs from various social media including X, Instagram, Facebook, TikTok, and YouTube (Melton et al., 2021).

"Price", "Investment", and "Money" show an emphasis on the transactional aspect (Hek et al., 2022; Indriyani & Daud, 2024; Wulandari, 2023). In addition, the terms "Islamic", "Halal", "Sharia", "Fatwa", "MUI", and "Ustadz" suggest that social media users are actively involved in considering the religious dimension in conducting digital transactions (Azzumi & Aziz, 2023; Muryanto, 2022; Nadiya & Rahmawaty, 2023; Qulub & Ayuningtyas Putri, 2024). The emergence of the terms "Usury", "Haram", and "Problem" among various positive terms such as "Good", "Safe", and "Easy" shows that there is a polarized sentiment with a tendency to negative perception (Baloch & Chimenya, 2023; Batubara & Tho'in, 2024; Kalinin et al., 2024; Lastauskaite & Krusinskas, 2024). Then, terms such as "BSI", "Danawallet", and "Indonesia" underlie digital gold facilities facilitated by certain institutions and geographical locations. Meanwhile, the terms "Online", "Digital", and "Transaction" indicate the type of technology and investment method (Ozili, 2022; Yuneline & Rosanti, 2023). Furthermore, the repetition of the terms "Allah", and "God" emphasizes the spiritual aspect of the polarization of sentiment (Agha et al., 2015; Iman & Samsuri, 2022). Meanwhile, the terms "sorry" and "hopefully" show a feeling of caution in the investment of digital gold (Adelowotan, 2024; Polanco, 2023). Overall, the analysis shows that digital gold is an interesting issue. However, terms related to scepticism and religious considerations tend to outweigh positive sentiment in viewing digital gold as an Islamic investment (Albalawee & Al Fahoum, 2023; Sakti et al., 2018). Furthermore, this study analyzed Sankey's diagram to show the flow of sentiment on various social media.

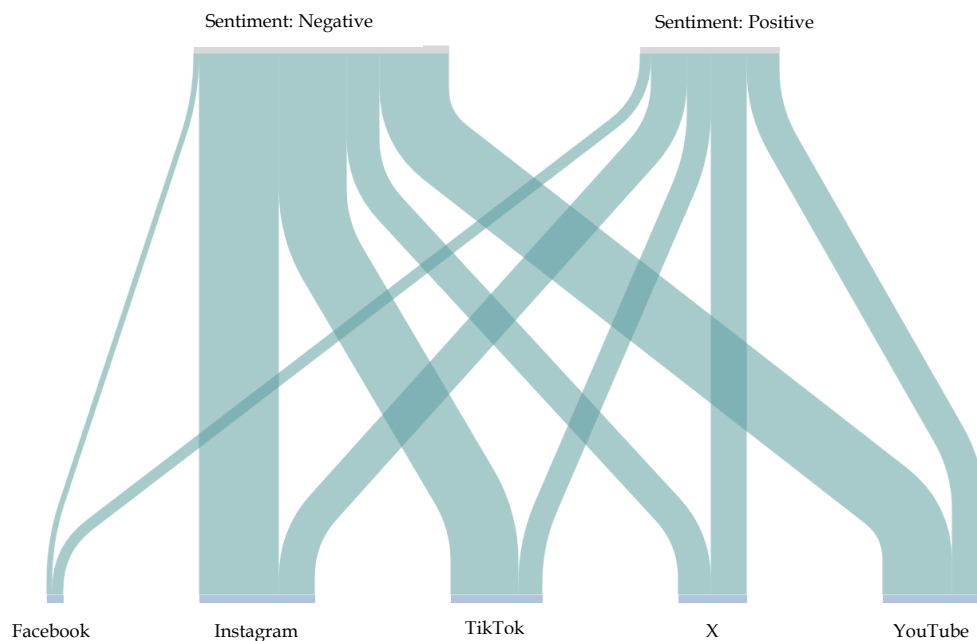


Figure 3: Diagram Sankey Analysis

Note: Data is processed in ATLAS ti



The results of the Sankey Diagram analysis show a detailed visualization of the distribution of sentiment related to the issue of digital gold as an investment in accordance with Islamic principles on various social media. This diagram divides sentiment into two categories: negative and positive. Most social media users have a sceptical view of digital gold as an Islamic investment. Instagram, YouTube, and TikTok show a wide distribution of sentiment streams with significant engagement. In addition, negative sentiments also dominate the perception of the three social media users. Meanwhile, Facebook and X instead aimed for narrower engagement with the dominance of sentiment that was almost balanced between negative and positive. The overlapping and intersecting flow of sentiment distribution between social media platforms shows that there is a polarization that is interconnected between users (Ferrara & Yang, 2015). In addition, the domination of negative sentiment shows that there is concern among social media users regarding aspects of feasibility, trust and sharia compliance in digital gold transactions (Hamdan et al., 2025). This means that digital gold investment raises considerable doubts for social media users based on the aspect of sharia compliance (Gurbaxani et al., 2023). In the final stage, this study revealed sentiment dominance scores through the NLP approach.

Most social media users such as Instagram, TikTok and YouTube are in the category of Generation Z and millennials (Curtis et al., 2019; Masril & Moulita, 2025). Meanwhile, Facebook and X users tend to be more balanced between young and old users (Kassa et al., 2018; Shane-Simpson et al., 2018). Generation Z and millennials have a tendency to use social media as an additional instrument of view in making investments (Olajide et al., 2024). In fact, someone feel that they understand investment risks better after reading various posts related to money on social media (Kuerzinger & Stangor, 2024; Sathya & Prabhavathi, 2024). In addition, the types of content on Instagram and TikTok have a visual format with a short duration by utilizing influencer opinions as a basis that influences user perception (Casaló et al., 2020; Haq & Chiu, 2024). In contrast, Facebook and X have a different pattern with a textual approach and threads that provide a space for discussion (Pelled et al., 2017), so that they can provide a more in-depth explanation of various sources related to digital gold as an Islamic investment. This means that various financial content on social media has encouraged the influence on young investors' investment behavior in new investment instruments.



Table 1: Sentiment Analysis Score

Social Media	Indicator	Sentiment		Totals
		Negative	Positive	
Facebook	Absolute	21	40	61
	Table-relative	1.47%	2.79%	4.26%
Instagram	Absolute	289	130	419
	Table-relative	20.17%	9.07%	29.24%
TikTok	Absolute	247	87	334
	Table-relative	17.24%	6.07%	23.31%
X	Absolute	118	130	248
	Table-relative	8.23%	9.07%	17.31%
YouTube	Absolute	252	119	371
	Table-relative	17.59%	8.30%	25.89%
Totals	Absolute	927	506	1433
	Table-relative	64.69%	35.31%	100.00%

Note: Data is processed in ATLAS ti

The results of sentiment analysis revealed a significant dominance of negative sentiment. The sentiment of Facebook, Instagram, TikTok, X, and YouTube users showed that there were 927 user responses that led to negative sentiment with a portion of 64.69% dominance of the total 1433 responses. Meanwhile, there were 506 user responses that led to positive sentiment with a dominance portion of 35.31%. Instagram emerged as the platform with the highest volume of engagement with 419 responses through 289 (20.17%) negative sentiments and 130 (9.07%) positive sentiments. Furthermore, YouTube with 371 responses through 252 (17.59%) negative sentiments and 119 (8.30%) positive sentiments. Then, TikTok followed with 334 responses through 247 (17.24%) negative sentiments and 87 (6.07%) positive sentiments. In addition, X recorded 248 responses, 118 (8.23%) negative sentiments and 130 (9.07%) positive sentiments, further strengthening the trend of scepticism consistently on all social media platforms. These findings show widespread concerns over sharia compliance, economic risks, or trust issues in the view of digital gold as an Islamic investment.

Social media users have doubts about digital gold related to aspects of sharia compliance (Hamdan et al., 2025). Users have consideration for transaction patterns that are not carried out in real-time. In fact, most users have doubts about the physical gold stored (GoldCore, 2012). Then, users also believe that digital gold purchases are required to include proof of ownership and can be submitted at any time by the seller if the buyer wants (Shankari, 2023). In addition, a lack of understanding of Islamic financial literacy can form a negative perception of digital gold investment, because social media users are often influenced by influencers without understanding the literacy of the main source (Anisa & Fajri, 2024; Bastomi & Sudaryanti, 2024). In fact, the debate between



scholars also adds to the critical attitude of social media users. Although there is a MUI fatwa that has allowed digital gold investment with certain conditions.

5. Conclusions

This study aims to reveal public sentiment on social media related to digital gold as an Islamic investment. This study conducted sentiment analysis by involving word cloud analysis to describe the terms that appear most often in digital gold conversations. In addition, this study also analyzed Sankey's diagram to visualize the flow of sentiment distribution on each social media. Then, this study mapped the portion of dominance of negative and positive sentiments through the NLP approach to 1433 responses of social media users such as X, Instagram, Facebook, TikTok, and YouTube over the past year.

The results of the word cloud analysis show that digital gold is an interesting issue. However, most social media users are very sceptical in understanding Islamic investment through digital gold, so most of the terms that appear tend to reflect concerns about religious views in accepting new investment patterns. In addition, the findings in the Sankey chart also show that the majority of Instagram, YouTube, and TikTok users show a wide distribution of sentiment streams with significant involvement in negative sentiment. Meanwhile, Facebook and X users tend to have a balanced distribution stream. Then, the results of the sentiment analysis assessment showed that negative sentiment dominated the perception of social media users with a portion of 64.69%. Meanwhile, positive sentiment only has a role of 35.31%. This shows that there is widespread concern over Sharia compliance in the view of digital gold as an Islamic investment.

This study provides implications for the need for education for the public in the context of sharia compliance in digital gold investment. The government and scholars need to collaborate in socializing how digital gold investment products in meeting sharia compliance aspects related to the delivery of goods, certificates, and the provision of physical gold, so as to avoid a decrease in investment interest in digital gold. In addition, service providers also need to increase public understanding through marketing strategies that can reach the public with an understanding of sharia aspects that have been complied with through the presence of MUI fatwa in the type of digital gold investment. In addition, this study also has limitations by only reaching five social media platforms by only involving content from one country with a duration of posts over the past year. It is hoped that the next study can reach more sentiment globally with the involvement of more opinions from various countries and a longer time span.



References

- Adelowotan, M. (2024). Exploring the development of regulatory framework for crypto assets in South Africa. *The Business and Management Review*, 15(01). <https://doi.org/10.24052/BMR/V15NU01/ART-08>
- Agha, S. E., Saafi, A. R., & Qayoom, O. A. (2015). Gold Investment from Islamic Perspective: The Case of Malaysia. *International Journal of Economics and Finance*, 7(5), 179–185. <https://doi.org/10.5539/ijef.v7n5p179>
- Ajouz, M., & Abuamria, F. (2023). Unveiling The Potential of The Islamic Fintech Ecosystem in Emerging Markets. *Al Qasimia University Journal of Islamic Economics*, 3(1), 115–148. <https://doi.org/10.52747/aqujie.3.1.219>
- Akbar, M., Iqbal, F., & Noor, F. (2019). Bayesian analysis of dynamic linkages among gold price, stock prices, exchange rate and interest rate in Pakistan. *Resources Policy*, 62, 154–164. <https://doi.org/10.1016/j.resourpol.2019.03.003>
- Albalawee, N., & Al Fahoum, A. S. (2023). Islamic legal perspectives on digital currencies and how they apply to Jordanian legislation. *F1000Research*, 12, 97. <https://doi.org/10.12688/f1000research.128767.2>
- Ali, F., Jiang, Y., & Sensoy, A. (2021). Downside risk in Dow Jones Islamic equity indices: Precious metals and portfolio diversification before and after the COVID-19 bear market. *Research in International Business and Finance*, 58, 101502. <https://doi.org/10.1016/j.ribaf.2021.101502>
- Ali, S., Naveed, M., Hanif, H., & Gubareva, M. (2024). The resilience of Shariah-compliant investments: Probing the static and dynamic connectedness between gold-backed cryptocurrencies and GCC equity markets. *International Review of Financial Analysis*, 91, 103045. <https://doi.org/10.1016/j.irfa.2023.103045>
- Alomari, D., & Ahmad, I. (2024). Exploring Character Trigrams for Robust Arabic Text Classification: A Comparative Analysis in the Face of Vocabulary Expansion and Misspelled Words. *IEEE Access*, 12, 57103–57116. <https://doi.org/10.1109/ACCESS.2024.3390048>
- Aloui, C., Hamida, H. ben, & Yarovaya, L. (2021). Are Islamic gold-backed cryptocurrencies different? *Finance Research Letters*, 39, 101615. <https://doi.org/10.1016/j.frl.2020.101615>
- Alqahtani, F., & Mayes, D. G. (2017). The global financial crisis and Islamic banking: The direct exposure to the crisis. *Banks and Bank Systems*, 12(3), 100–112. [https://doi.org/10.21511/bbs.12\(3\).2017.08](https://doi.org/10.21511/bbs.12(3).2017.08)
- Anisa, S. N., & Fajri, M. S. (2024). The Impact of Islamic Financial Literacy on Gen Z's Investment Decisions in The Islamic Capital Market. *Islamic Capital Market*, 2(2). <https://doi.org/10.58968/icm.v2i2.572>
- Anita, A., & Aree, S. (2022). A Comparative Study: Return and Risk Measurement Gold versus Islamic Mutual Fund. *ISLAMICONOMIC: Jurnal Ekonomi Islam*, 13(2). <https://doi.org/10.32678/ijei.v13i2.418>
- Anwer, Z., Asadov, A., Kamil, N. K. M., Musaev, M., & Refede, M. (2019). Islamic



- venture capital – issues in practice. *ISRA International Journal of Islamic Finance*, 11(1), 147–158. <https://doi.org/10.1108/IJIF-06-2018-0063>
- Awaluddin, M., Molina, Nurlia, & Wahyuni. (2023). Determining Factors for Young Investors to Invest in the Capital Market. *International Journal of Professional Business Review*, 8(5), e01964. <https://doi.org/10.26668/businessreview/2023.v8i5.1964>
- Azzumi, A. R., & Aziz, J. A. (2023). Considering Dawam Raharjo as the Foundation of Sharia Digital Business Ethics. *Money: Journal of Financial and Islamic Banking*, 1(2), 115–121. <https://doi.org/10.31004/money.v1i2.15991>
- Bader, M., Iversen, S. H., & Burner, T. (2021). Students' Perceptions and Use of a New Digital Tool in Teacher Education. *Nordic Journal of Digital Literacy*, 16(1), 21–33. <https://doi.org/10.18261/issn.1891-943x-2021-01-03>
- Badshah, W., Musah, M., & Khan, A. U. I. (2023). Is the Effect of a Health Crisis Symmetric for Physical and Digital Financial Assets? An Assessment of Gold and Bitcoin During the Pandemic. *Plos One*, 18(11), e0288762. <https://doi.org/10.1371/journal.pone.0288762>
- Bajrachrya, R. B., & Samdani, G. L. (2021). Socially Responsible Investment (SRI) Attitude of Mutual Fund Investors in Nepal. *Nepal Journal of Multidisciplinary Research*, 4(4), 23–32. <https://doi.org/10.3126/njmr.v4i4.43092>
- Baloch, B. A., & Chimanya, A. (2023). Ethical Dimensions of Islamic Finance and Their Relevance in Contemporary Business Practices. *International Journal of Islamic Banking and Finance Research*, 11(2), 32–39. <https://doi.org/10.46281/ijibfr.v11i2.2125>
- Bastomi, M., & Sudaryanti, D. (2024). The influence of islamic capital market literacy toward intention to invest in islamic capital market: Does risk perception mediate the relationship? *Journal of Accounting and Investment*, 25(1), 1–24. <https://doi.org/10.18196/jai.v25i1.19630>
- Batubara, M., & Tho'in, M. (2024). Transactions of Cryptocurrency in the Perspective of Islamic Finance and Economics. *Muqtasid: Jurnal Ekonomi Dan Perbankan Syariah*, 14(2), 133–147. <https://doi.org/10.18326/muqtasid.v14i2.133-147>
- Beckmann, J., Berger, T., & Czudaj, R. (2019). Gold price dynamics and the role of uncertainty. *Quantitative Finance*, 19(4), 663–681. <https://doi.org/10.1080/14697688.2018.1508879>
- Beddu, M. J., Eravia, D., Nulatifah, N., Aslina, N., Ruhmah, A. A., Addiningrum, F. M., & Azhari, M. I. (2023). Mudharabah: Sustainable Sharia Investment Model. *AL-Muqayyad*, 6(2), 126–139. <https://doi.org/10.46963/jam.v6i2.1289>
- Begam, M. R., Babu, M., & Sulphey, M. M. (2024). Development and Validation of an Islamic Investor's Sentiment Scale for Stock Market Investment. *Business Perspectives and Research*, 12(1), 26–44. <https://doi.org/10.1177/22785337221148888>
- Belhaj, A. (2018). Illicit Money in Contemporary Islamic Ethics. *Religions*, 9(8),



226. <https://doi.org/10.3390/re19080226>
- Billah, M. M. (2019). An Islamic Investment Paradigm. In *Modern Islamic Investment Management* (pp. 3–16). Springer International Publishing. https://doi.org/10.1007/978-3-030-17628-0_1
- Brady, C. (2007). Gold Rush. In *Elizabeth Blackburn and the Story of Telomeres*. The MIT Press. <https://doi.org/10.7551/mitpress/7449.003.0007>
- Casaló, L. V., Flavián, C., & Ibáñez-Sánchez, S. (2020). Influencers on Instagram: Antecedents and consequences of opinion leadership. *Journal of Business Research*, 117, 510–519. <https://doi.org/10.1016/j.jbusres.2018.07.005>
- Cheong, C. W. H. (2018). The Islamic gold dinar: a hedge against exchange rate volatility. *Managerial Finance*, 44(6), 722–738. <https://doi.org/10.1108/MF-12-2016-0351>
- Chiang, T. C. (2022). The effects of economic uncertainty, geopolitical risk and pandemic upheaval on gold prices. *Resources Policy*, 76, 102546. <https://doi.org/10.1016/j.resourpol.2021.102546>
- Curtis, B. L., Ashford, R. D., Magnuson, K. I., & Ryan-Pettes, S. R. (2019). Comparison of Smartphone Ownership, Social Media Use, and Willingness to Use Digital Interventions Between Generation Z and Millennials in the Treatment of Substance Use: Cross-Sectional Questionnaire Study. *Journal of Medical Internet Research*, 21(4), e13050. <https://doi.org/10.2196/13050>
- Darban, M., & Amirkhiz, H. (2015). Herd Behavior in Technology Adoption: The Role of Adopter and Adopted Characteristics. *2015 48th Hawaii International Conference on System Sciences*, 3591–3600. <https://doi.org/10.1109/HICSS.2015.432>
- de-Córdoba, G. F., & Molinari, B. (2022). Sankey Diagrams for Macroeconomics: A Teaching Complement Bridging Undergraduate and Graduate Macro. *Heliyon*, 8(9), e10717. <https://doi.org/10.1016/j.heliyon.2022.e10717>
- Dharma, Y., Puteh, A., Widodo, R., Alfaqih, L., & Yahya, A. (2024). The Influence of Financial Literacy and Islamic Business Ethics on Investment in Islamic Financial Instruments: The Mediating Role of Risk Attitude and the Moderating Role of Religious Knowledge. *Journal of Ecohumanism*, 3(8), 264–282. <https://doi.org/10.62754/joe.v3i8.4729>
- Elnadree, R., El-Sisi, A., & Atwa, W. (2021). Performance Investigation of Features Extraction and Classification Approaches for Sentiment Analysis Systems. *IJCI. International Journal of Computers and Information*, 0–0. <https://doi.org/10.21608/ijci.2021.65578.1044>
- Ezahar, R. J. B., Shuib, M. S., & Abdul Rahim, A. K. (2020). E-Commerce Transaction in Hello Gold Investment: Islamic Investment Review. *Asian Business Review*, 10(1), 73–xx. <https://doi.org/10.18034/abr.v10i1.464>
- Fahrudin, T. M., Riyantoko, P. A., Hindrayani, K. M., & Diyasa, I. G. S. M. (2021). Daily Forecasting for Antam's Certified Gold Bullion Prices in 2018-2020 using Polynomial Regression and Double Exponential Smoothing. *Journal of International Conference Proceedings*, 3(4), 45–53.



- <https://doi.org/10.32535/jicp.v3i4.1009>
- Ferrara, E., & Yang, Z. (2015). Quantifying the effect of sentiment on information diffusion in social media. *PeerJ Computer Science*, 1, e26. <https://doi.org/10.7717/peerj-cs.26>
- Fu, Y. (2024). A Theoretical Analysis of Digital Finance Enabling Green Innovation. *Highlights in Business, Economics and Management*, 33, 251–259. <https://doi.org/10.54097/wdn7ds67>
- GoldCore. (2012). *A Beginner's Guide To Investing in Gold*. https://cdn1.hubspot.net/hub/233034/A_Beginners_Guide_To_Investing_In_Gold.pdf
- Gurbaxani, A. (2023). Digital Gold in Emerging Markets: An Investor's Perspective. *2023 International Conference on Sustainable Islamic Business and Finance (SIBF)*, 81–84. <https://doi.org/10.1109/SIBF60067.2023.10380105>
- Gurbaxani, A., Thakkar, J., Pathak, S., Mathur, A., & Raees, S. (2023). Examining Factors Influencing Investment in Digital Gold and Gold ETF Using the PCA Technique. *Investment Management and Financial Innovations*, 20(2), 160–170. [https://doi.org/10.21511/imfi.20\(2\).2023.14](https://doi.org/10.21511/imfi.20(2).2023.14)
- Haidar, A. (2024). Decoding Sentiments: Exploring Islamic Fintech Discourse on Twitter in the Post-Pandemic. *Perbanas Journal of Islamic Economics and Business*, 4(1), 46. <https://doi.org/10.56174/pjieb.v4i1.244>
- Hamdan, N. H. binti, Kassim, S. binti, Nik Azman, N. H., & Abd Rahman, N. A. S. B. (2025). Consumers' Behavioural Intention to Adopt Shari'ah-Compliant Digital Gold Platform in Malaysia: Extension of UTAUT Model. *Journal of Islamic Monetary Economics and Finance*, 11(1), 35–62. <https://doi.org/10.21098/jimf.v11i1.2035>
- Haq, M. D., & Chiu, C.-M. (2024). Boosting online user engagement with short video endorsement content on TikTok via the image transfer mechanism. *Electronic Commerce Research and Applications*, 64, 101379. <https://doi.org/10.1016/j.eierap.2024.101379>
- Haritha, G. S. S. (2023). Gold as Investable Commodity-an Inquiry. *Cienc.Eng.*, 11(1), 2236–2242. <https://doi.org/10.52783/cienceng.v11i1.399>
- Hasyim, F., Ratnasari, R. T., Qomar, M. N., & Saleh, H. G. M. (2024). Resilience of Islamic and Conventional Stocks to Geopolitical Conflict: A GARCH Model Analysis. *Asian Journal of Islamic Management (Ajim)*, 122–139. <https://doi.org/10.20885/ajim.vol6.iss2.art4>
- Hek, T. K., Wongsosudono, C., & Ginting, R. S. (2022). Translating The Water Law Into Dynamic Modelling of The Mathematical Structural Equation : A Case of Medan North Sumatera. *IOP Conference Series: Earth and Environmental Science*, 1083(1), 012039. <https://doi.org/10.1088/1755-1315/1083/1/012039>
- Hidayat, M., Hidayat, R., & Otik Kurniawati, D. (2021). Comparison of The Use of Bigrams and Stopword Removal for Classification Using Naive Bayes (Case Study on Sentiment Analysis of By.U Internet Users). *2021 International*



- Conference on Software Engineering & Computer Systems and 4th International Conference on Computational Science and Information Management (ICSECS-ICOCSIM)*, 447–452. <https://doi.org/10.1109/ICSECS52883.2021.00088>
- Iman, A. K. N., & Samsuri, A. (2022). Cryptocurrency; Financial Risk And Shariah-Compliant Alternative Concept. *Equilibrium: Jurnal Ekonomi Syariah*, 10(1), 109. <https://doi.org/10.21043/equilibrium.v10i1.13278>
- Indrawati, T., Damanuri, A., & Maharani, S. (2023). Perilaku Konsumen dalam Berinvestasi Emas Digital Melalui Platform Tokopedia. *Journal of Economics, Law, and Humanities*, 2(2), 39–52. <https://doi.org/10.21154/jelhum.v2i2.2196>
- Indriyani, S., & Daud, D. (2024). Practices of Buying Chicken According to Imam Syafi'i's Views in Traditional Markets. *Zabags International Journal Of Economy*, 2(1), 45–55. <https://doi.org/10.61233/zijec.v2i1.78>
- Irfan, M., Rehman, M. A., Nawazish, S., & Hao, Y. (2023). Performance Analysis of Gold- and Fiat-Backed Cryptocurrencies: Risk-Based Choice for a Portfolio. *Journal of Risk and Financial Management*, 16(2), 99. <https://doi.org/10.3390/jrfm16020099>
- Jalan, A., Matkovskyy, R., & Yarovaya, L. (2021). “Shiny” crypto assets: A systemic look at gold-backed cryptocurrencies during the COVID-19 pandemic. *International Review of Financial Analysis*, 78, 101958. <https://doi.org/10.1016/j.irfa.2021.101958>
- Joshi, P. R., & Rawat, B. R. (2024). Influence of Digital Financial Literacy on Investment Behaviour of Nepali Investors. *KMC Journal*, 6(2), 35–54. <https://doi.org/10.3126/kmcj.v6i2.68889>
- Juisin, H. A., Mohd Sayuthi, M. A. S., Amin, H., & Shaikh, I. M. (2023). Determinants of Shari'ah gold investment behaviour: the case of Penang, Malaysia. *Journal of Islamic Marketing*, 14(12), 3228–3246. <https://doi.org/10.1108/JIMA-11-2021-0360>
- Kalinin, O., Gonchar, V., Abliazova, N., Filipishyna, L., Onofriichuk, O., & Maltsev, M. (2024). Enhancing Economic Security through Digital Transformation in Investment Processes: Theoretical Perspectives and Methodological Approaches Integrating Environmental Sustainability. *Natural and Engineering Sciences*, 9(1), 26–45. <https://doi.org/10.28978/nesciences.1469858>
- Kanwal, A., Tayyab, M., & Idrees, S. (2023). Exploring the Nexus of Financial Technologies, Financial Inclusion, and Blockchain in Islamic Finance within Digital Transformation. *Pakistan Journal of Humanities and Social Sciences*, 11(4). <https://doi.org/10.52131/pjhss.2023.1104.0675>
- Kassa, Y. M., Cuevas, R., & Cuevas, A. (2018). A Large-Scale Analysis of Facebook's User-Base and User Engagement Growth. *IEEE Access*, 6, 78881–78891. <https://doi.org/10.1109/ACCESS.2018.2885458>
- Kilic, G. (2023). The Emergence of Islamic Fintech and Its Applications. *International Journal of Islamic Economics and Finance Studies*. <https://doi.org/10.54427/ijisef.1328087>



- Kılıç, G. (2023). The Emergence of Islamic Fintech and Its Applications. *International Journal of Islamic Economics and Finance Studies*. <https://doi.org/10.54427/ijisef.1328087>
- Kraus, P., Kappl, J., & Schlegel, D. (2024). To invest or not to invest in digital initiatives? An exploratory examination of procedures, evaluation criteria and barriers. *Digital Transformation and Society*, 3(4), 410–423. <https://doi.org/10.1108/DTS-02-2024-0004>
- Kuerzinger, L., & Stangor, P. (2024). The relevance and influence of social media posts on investment decisions of young and social media-savvy individuals – An experimental approach based on Tweets. *Journal of Behavioral and Experimental Finance*, 44, 101005. <https://doi.org/10.1016/j.jbef.2024.101005>
- Kumar, S., Singh, R., Khan, M. Z., & Noorwali, A. (2021). Design of adaptive ensemble classifier for online sentiment analysis and opinion mining. *PeerJ Computer Science*, 7, e660. <https://doi.org/10.7717/peerj-cs.660>
- Kurniawan, T. A., Primastiwi, A., & Milanda, D. P. (2024). Perceived Risk And Self Efficacy Effect On Digital Gold Applications Usage. *Jurnal Manajemen*, 28(3), 547–566. <https://doi.org/10.24912/jm.v28i3.1982>
- Kustina, K. T. (2025). Pengaruh Pengetahuan Investasi, Perceived Value Dan Risiko Investasi Terhadap Minat Investasi Emas Digital Pt Pegadaian Denpasar. *Jurnal Aplikasi Akuntansi*, 9(2), 580–596. <https://doi.org/10.29303/jaa.v9i2.569>
- Lastauskaite, A., & Krusinskas, R. (2024). The Impact of Production Digitalization Investments on European Companies' Financial Performance. *Economies*, 12(6), 138. <https://doi.org/10.3390/economies12060138>
- Lee, M.-J., Lee, T.-R., Lee, S.-J., Jang, J.-S., & Kim, E. J. (2020). Machine Learning-Based Data Mining Method for Sentiment Analysis of the Sewol Ferry Disaster's Effect on Social Stress. *Frontiers in Psychiatry*, 11. <https://doi.org/10.3389/fpsy.2020.505673>
- Lei, H., Xue, M., Liu, H., & Ye, J. (2023). Precious metal as a safe haven for global ESG stocks: Portfolio implications for socially responsible investing. *Resources Policy*, 80, 103170. <https://doi.org/10.1016/j.resourpol.2022.103170>
- Ma'ruf, A., Alam, A., Anggih, A., Kulsum, U., & Nurrahman, A. (2023). Islamic Law Analysis on The Practice of Online Retail Gold Transaction. *JESKaPe: Jurnal Ekonomi Syariah, Akuntansi Dan Perbankan*, 7(1), 85–98.
- Maghyereh, A. I., Abdoh, H., & Awartani, B. (2019). Connectedness and hedging between gold and Islamic securities: A new evidence from time-frequency domain approaches. *Pacific-Basin Finance Journal*, 54, 13–28. <https://doi.org/10.1016/j.pacfin.2019.01.008>
- Malzara, V. R. B., Widyastuti, U., & Buchdadi, A. D. (2023). Analysis of Gen Z's Green Investment Intention: The Application of Theory of Planned Behavior. *Jurnal Dinamika Manajemen Dan Bisnis*, 6(2), 63–84. <https://doi.org/10.21009/jdmb.06.2.5>



- Mardhiyah, U. R. (2025). Peran Investasi Emas dan Aksesibilitas Pembiayaan dalam Meningkatkan Kesejahteraan Ekonomi Masyarakat Indonesia. *Journal of Industrial and Syariah Economics*, 2(2), 135–145. <https://doi.org/10.63321/jise.v2i2.84>
- Masril, M., & Moulita, M. (2025). Features of Medan's Millennials and Z-Gens as Social Media Users. *Dirasat: Human and Social Sciences*, 52(3), 6267. <https://doi.org/10.35516/hum.v52i3.6267>
- Melton, C. A., Olusanya, O. A., Ammar, N., & Shaban-Nejad, A. (2021). Public sentiment analysis and topic modeling regarding COVID-19 vaccines on the Reddit social media platform: A call to action for strengthening vaccine confidence. *Journal of Infection and Public Health*, 14(10), 1505–1512. <https://doi.org/10.1016/j.jiph.2021.08.010>
- Mishra, A. K., Bansal, R., Maurya, P. K., Kar, S. K., & Kaur, P. (2022). Predicting the Antecedents of Consumers' Intention Toward Purchase of Mutual Funds: A Hybrid <sc>PLS-SEM-neural</Sc> Network Approach. *International Journal of Consumer Studies*, 47(2), 563–587. <https://doi.org/10.1111/ijcs.12850>
- Mnif, E., & Jarboui, A. (2021). COVID-19, bitcoin market efficiency, herd behaviour. *Review of Behavioral Finance*, 13(1), 69–84. <https://doi.org/10.1108/RBF-09-2020-0233>
- Mubtadi, N. A., & Adinugraha, H. H. (2022). Personal Prophetic Leadership, Sharia Compliance, and Islamic Corporate Governance: Sharia Banking Fraud Prevention Efforts. *El-Qish: Journal of Islamic Economics*, 2(2), 139–147. <https://doi.org/10.33830/elqish.v2i2.1797.2022>
- Mullan, P. C. (2014). Digital Gold Currency. In *The Digital Currency Challenge* (pp. 16–19). Palgrave Macmillan US. https://doi.org/10.1057/9781137382559_4
- Muryanto, Y. T. (2022). The urgency of sharia compliance regulations for Islamic Fintechs: a comparative study of Indonesia, Malaysia and the United Kingdom. *Journal of Financial Crime*, 30(5), 1264–1278. <https://doi.org/10.1108/jfc-05-2022-0099>
- Nadiya, S. Z., & Rahmawaty, A. (2023). Purchase Intention Halal Food in Online Shop Among Gen Z Muslims: The Role of Halal Awareness, Sales Promotion Display, Social Media Marketing, and Endorser's Persuasiveness. *Proceeding of International Conference on Islamic Economics, Islamic Banking, Zakah and Waqf*, 1, 89–106. <https://doi.org/10.24090/ieibzawa.v1i.758>
- Naeem, M. A., Qureshi, F., Arif, M., & Balli, F. (2021). Asymmetric relationship between gold and Islamic stocks in bearish, normal and bullish market conditions. *Resources Policy*, 72, 102067. <https://doi.org/10.1016/j.resourpol.2021.102067>
- Nagimova, A. (2022). Islamic Fintech: Digitalization of Global Islamic Finance. *World Economy and International Relations*, 66(5), 50–58. <https://doi.org/10.20542/0131-2227-2022-66-5-50-58>
- Nugroho, B. A. (2023). The Stability of Islamic Cryptocurrencies and Copula-



- Based Dependence with Alternative Crypto and Fiat Currencies. *ISRA International Journal of Islamic Finance*, 15(2), 80–97. <https://doi.org/10.55188/ijif.v15i2.543>
- Nwankpa, J. K., & Merhout, J. W. (2020). Exploring the Effect of Digital Investment on IT Innovation. *Sustainability*, 12(18), 7374. <https://doi.org/10.3390/su12187374>
- Olajide, O., Pandey, S., & Pandey, I. (2024). Social Media for Investment Advice and Financial Satisfaction: Does Generation Matter? *Journal of Risk and Financial Management*, 17(9), 410. <https://doi.org/10.3390/jrfm17090410>
- Otto, E., Culakova, E., Meng, S., Zhang, Z., Xu, H., Mohile, S. G., & Flannery, M. (2022). Overview of Sankey Flow Diagrams: Focusing on Symptom Trajectories in Older Adults With Advanced Cancer. *Journal of Geriatric Oncology*, 13(5), 742–746. <https://doi.org/10.1016/j.jgo.2021.12.017>
- Ozili, P. (2022). Digital finance research and developments around the World: a literature review. *International Journal of Business Forecasting and Marketing Intelligence*, 1(1), 1. <https://doi.org/10.1504/IJBFMI.2022.10049390>
- Pelled, A., Zilberstein, T., Tsirulnikov, A., Pick, E., Patkin, Y., & Tal-Or, N. (2017). Textual Primacy Online: Impression Formation Based on Textual and Visual Cues in Facebook Profiles. *American Behavioral Scientist*, 61(7), 672–687. <https://doi.org/10.1177/0002764217717563>
- Polanco, R. (2023). The Impact of Digitalization on International Investment Law: Are Investment Treaties Analogue or Digital? *German Law Journal*, 24(3), 574–588. <https://doi.org/10.1017/glj.2023.30>
- Pribowo, K., & Fathihani, F. (2023). Pengaruh Pengetahuan, Kemudahan, Dan Sistem Pembayaran Terhadap Minat Investasi Emas Digital Pada Generasi Milenial (Studi Pada Mahasiswa Fakultas Bisnis Dan Ilmu Sosial Universitas Dian Nusantara Jakarta). *Jurnal Manajemen Dan Pemasaran Digital*, 1(3), 133–142. <https://doi.org/10.38035/jmpd.v1i3.60>
- Qulub, A. F., & Ayuningtyas Putri, R. N. (2024). Antecedents of Muslim Students' Decisions to Use Islamic Digital Banks. *Jurnal Penelitian Ekonomi Dan Bisnis*, 9(1), 60–74. <https://doi.org/10.33633/jpeb.v9i1.9838>
- Respati, H., Triatmanto, B., & Wahyuni, N. (2024). Digital Finance, Human Capital, and Urban Innovation in Indonesia. *International Journal of Professional Business Review*, 9(4), e04533. <https://doi.org/10.26668/businessreview/2024.v9i4.4533>
- Rezaldo, A. D. (2025). Perbandingan Produk Emas Digital Dan Cicilan Emas Di Bank Syariah Indonesia. *Jurnal Dinamika Ekonomi Syariah*, 12(1), 27–38. <https://doi.org/10.53429/jdes.v12i1.1201>
- Ripada, N. I. (2020). Analisis Keamanan Dan Risiko Investasi Emas Digital Terhadap Minat Investasi: Studi Pada Pegadaian Digital Service. *Kasaba: Jurnal Ekonomi Islam*, 13(2). <https://doi.org/https://doi.org/10.32832/kasaba.v13i2.3463>
- Rizvi, S. A. R., & Ali, M. (2022). Do Islamic Cryptocurrencies Provide



- Diversification Opportunities to Indonesian Islamic Investors? *Journal of Islamic Monetary Economics and Finance*, 8(3).
<https://doi.org/10.21098/jimf.v8i3.1563>
- Robiyanto, R. (2018). Testing of The Gold's Role as a Safe Haven and Hedge for Sharia Stocks in Indonesia. *Al-Iqtishad: Jurnal Ilmu Ekonomi Syariah*, 10(2), 255–266. <https://doi.org/10.15408/aiq.v10i2.6527>
- Robiyanto, R., Hadiyatno, D., Sudjinan, S., & Ernayani, R. (2019). Gold and capital market in Indonesia: A preview on strategy of hedging and diversification. *Journal of International Studies*, 12(2), 117–128. <https://doi.org/10.14254/2071-8330.2019/12-2/7>
- Rusmita, S. A., Filianti, D., Mayasani, E. N., & Samad, K. A. (2024). Gold characteristics as safe haven and assets diversification for Sharia stocks in Indonesia. *Journal of Islamic Accounting and Business Research*. <https://doi.org/10.1108/JIABR-11-2021-0302>
- Saffuan, M., Asri, M., & Nordin, N. (2024). Shariah and Legal Considerations in Digital Gold Investment: A Case Study of Quantum Metal. *International Journal of Academic Research in Business and Social Sciences*, 14(12). <https://doi.org/http://dx.doi.org/10.6007/IJARBS/v14-i12/24297>
- Sakti, M. R. P., Masih, M., Saiti, B., & Tareq, M. A. (2018). Unveiling the diversification benefits of Islamic equities and commodities. *Managerial Finance*, 44(6), 830–850. <https://doi.org/10.1108/MF-08-2017-0278>
- Sathya, N., & Prabhavathi, C. (2024). The influence of social media on investment decision-making: examining behavioral biases, risk perception, and mediation effects. *International Journal of System Assurance Engineering and Management*, 15(3), 957–963. <https://doi.org/10.1007/s13198-023-02182-x>
- Shane-Simpson, C., Manago, A., Gaggi, N., & Gillespie-Lynch, K. (2018). Why do college students prefer Facebook, Twitter, or Instagram? Site affordances, tensions between privacy and self-expression, and implications for social capital. *Computers in Human Behavior*, 86, 276–288. <https://doi.org/10.1016/j.chb.2018.04.041>
- Shankari, S. (2023). A Study And Creating Awareness On Investment In Digital Gold. *International Journal of Research and Analytical Reviews*, 10(2).
- Sholeh, M. I. (2023). Technology Integration in Islamic Education: Policy Framework and Adoption Challenges. *Journal of Modern Islamic Studies and Civilization*, 1(02), 82–100. <https://doi.org/10.59653/jmisc.v1i02.155>
- Siswanto, & Mahmud, A. (2023). The Impact of Islamic Financial Development on Renewable Energy Production in Islamic Countries. *Asian Journal of Islamic Management (Ajim)*, 54–68. <https://doi.org/10.20885/ajim.vol5.iss1.art4>
- Snene Manzli, Y., & Jeribi, A. (2024). Assessing Bitcoin, gold and gold-backed cryptocurrencies as safe havens for energy and agricultural commodities: insights from COVID-19, Russia-Ukraine conflict and SVB collapse. *Journal of Financial Economic Policy*, 16(5), 656–689. <https://doi.org/10.1108/JFEP->



12-2023-0386

- Soi, A. B., Yusuf, H., & Damirah, D. (2023). E-Gold and Investment Challenges: How Digital Gold Works for Economic Recovery After Covid-19 Pandemic. *Al-Falah Journal of Islamic Economics*, 8(2), 227. <https://doi.org/10.29240/alfalah.v8i2.8487>
- Suchitra, V. G., Lohith, V., & Subramanyan, B. (2025). A Study on Perception of Investors in Digital Gold Market. *Ejmeh*, 2(2), 67-71. [https://doi.org/10.59324/ejmeh.2025.2\(2\).08](https://doi.org/10.59324/ejmeh.2025.2(2).08)
- Sulistiyani, E., Wahyuni, S., Setyadi, D., & Karnowahadi, R. (2024). Determinant of Gold Investment Decision in Z Generation: A Study of Planned Behavior and Social Learning Theory. *Management and Accounting Review*. <https://doi.org/10.24191/MAR.V23i01-17>
- Sunitha, S. P., & Nayak, A. P. (2025). Digital Gold in the Fintech Era: Innovations and Implications - A study in Indian Scenario. *International Journal of Engineering, Management and Humanities*, 6(1).
- Suprapdi, S., & Mujib, A. (2023). Analisis Perlindungan Hukum Konsumen Tabungan Emas Pada E-Commerce Tokopedia. *Al-Mustashfa: Jurnal Penelitian Hukum Ekonomi Syariah*, 8(1), 74. <https://doi.org/10.24235/jm.v8i1.12622>
- Supriadi, I., Maghfiroh, R. U., & Abadi, R. (2024). Decentralized Islamic Finance: Harnessing Blockchain Technology. *EL DINAR: Jurnal Keuangan Dan Perbankan Syariah*, 12(1), 108-131. <https://doi.org/10.18860/ed.v12i1.23333>
- Supriani, I., Herianingrum, S., Ninglasari, S. Y., & Budi, R. S. (2022). Islamic Stock Market Performance Pre-COVID-19: Empirical Evidence from Jakarta Islamic Index. *Jurnal Ekonomi Dan Bisnis Islam (Journal of Islamic Economics and Business)*, 8(2), 267-287. <https://doi.org/10.20473/jebis.v8i2.37789>
- Susanti, A., Farida, A., & Ardyan, E. (2023). Does Financial Literacy Affect Decisions Regarding Gold Investments? Risk Perception, Income, and Financial Behavior of the Surakarta Community. *International Journal of Economics Business and Management Research*, 07(12), 142-162. <https://doi.org/10.51505/ijebmr.2023.71209>
- Tamara, D., Maharani, A., Heriyati, P., Seto, A. B. R., & Nathanael, K. (2023). Intention in Investing Digital Gold Through E-Commerce Platforms. *E3s Web of Conferences*, 426, 2010. <https://doi.org/10.1051/e3sconf/202342602010>
- Trabelsi, N., Gozgor, G., Tiwari, A. K., & Hammoudeh, S. (2021). Effects of Price of Gold on Bombay Stock Exchange Sectoral Indices: New Evidence for Portfolio Risk Management. *Research in International Business and Finance*, 55, 101316. <https://doi.org/10.1016/j.ribaf.2020.101316>
- Tubagus, S. O. (2024). Transformation of Sharia Investment at IAIN Manado: Analysis of Student Interest and Impact. *ECo-Fin*, 6(2), 387-395. <https://doi.org/10.32877/ef.v6i2.1437>
- Tuna, G. (2019). Interaction between precious metals price and Islamic stock



- markets. *International Journal of Islamic and Middle Eastern Finance and Management*, 12(1), 96–114. <https://doi.org/10.1108/IMEFM-06-2017-0143>
- Verma, B., & Thakur, R. S. (2018). *Sentiment Analysis Using Lexicon and Machine Learning-Based Approaches: A Survey* (pp. 441–447). https://doi.org/10.1007/978-981-10-8198-9_46
- Wang, F., Wang, P., Xu, X., Dong, L., Xue, H., Fu, S., & Ji, Y. (2017). Tracing China's Energy Flow and Carbon Dioxide Flow Based on Sankey Diagrams. *Energy Ecology and Environment*, 2(5), 317–328. <https://doi.org/10.1007/s40974-017-0070-y>
- Webber, D. J., Hughes, E., Pacheco, G., & Parry, G. (2022). Investment in Digital Infrastructure: Why and for Whom? *Region*, 9(1), 147–163. <https://doi.org/10.18335/region.v9i1.415>
- Widjaja, M., Gaby, & Havidz, S. A. H. (2024). Are gold and cryptocurrency a safe haven for stocks and bonds? Conventional vs Islamic markets during the COVID-19 pandemic. *European Journal of Management and Business Economics*, 33(1), 96–115. <https://doi.org/10.1108/EJMBE-05-2022-0135>
- Wulandari, N. (2023). Views Of Islamic Economics on Buying and Selling Interests Through the Shopee Kafen Online System. *AL-ITTIFAQ Jurnal Ekonomi Syariah*, 3(2), 55. <https://doi.org/10.31958/al-ittifaq.v3i2.9554>
- Yang, X. (2024). Digital Transformation and Innovation Investments. *Advances in Economics and Management Research*, 10(1), 307. <https://doi.org/10.56028/aemr.10.1.307.2024>
- Yarovaya, L., Elsayed, A. H., & Hammoudeh, S. (2021). Determinants of Spillovers between Islamic and Conventional Financial Markets: Exploring the Safe Haven Assets during the COVID-19 Pandemic. *Finance Research Letters*, 43, 101979. <https://doi.org/10.1016/j.frl.2021.101979>
- Yousfi, M., Farhani, R., & Bouzgarrou, H. (2024). From the pandemic to the Russia-Ukraine crisis: Dynamic behavior of connectedness between financial markets and implications for portfolio management. *Economic Analysis and Policy*, 81, 1178–1197. <https://doi.org/10.1016/j.eap.2024.02.001>
- Yuneline, M. H., & Rosanti, M. F. C. (2023). The Role of Digital Finance, Financial Literacy, and Lifestyle on Financial Behaviour. *HOLISTICA – Journal of Business and Public Administration*, 14(2), 97–115. <https://doi.org/10.2478/hjbpa-2023-0018>
- Zakaria, Z., Ramli, S. Q., Shoid, N. S. Z. M., & Sulaiman, A. (2022). Mapping Halal Cosmetics Research: A Bibliometric Analysis. *Malaysian Journal of Syariah and Law*, 10(1), 63 – 75. <https://doi.org/10.33102/mjsl.vol10no1.384>
- Zakir, M. A. bin M., Zakaria, M. Z. bin, Salleh, A. Z., Ismail, A. M., Hasbullah, M., & Majid, M. N. A. (2023). Digital Gold Investment Platform in Shariah Perspective: A Case Study of Quantum Metal. In *Digitalization in Halal Management* (pp. 47–64). Springer Singapore. https://doi.org/10.1007/978-981-99-5146-8_4



Zhang, R., & Sidik, M. H. J. (2024). Big Data, Artificial Intelligence, and Financial Literacy: Exploring their Combined Influence on Investment Behavior among Chinese Household. *Journal of Information Systems Engineering and Management*, 9(1), 24446. <https://doi.org/10.55267/iadt.07.14651>