

THE EFFECT OF RISK PERCEPTION, FINANCIAL LITERACY, AND FINANCIAL PLANNING ON CRYPTOCURRENCY ASSET MANAGEMENT

Adinda Maratusholikhah¹⁾, Liliek Nur Sulistiyowati²⁾, Ririh Anggraini Setyahety³⁾

^{1,2,3} Fakultas Ekonomi dan Bisnis, Universitas PGRI Madiun

¹ email: adindams01@gmail.com

² email: liliek1702@gmail.com

³ email: ririh@unipma.ac.id

Abstrak

Penelitian ini bertujuan untuk menganalisis Pengaruh persepsi resiko, literasi keuangan, dan perencanaan keuangan terhadap manajemen aset kripto studi kasus Pada Generasi Z Se-Karesidenan Madiun. Beberapa tahun terakhir, aset kripto (*cryptocurrency*) menjadi salah satu instrumen investasi digital yang mengalami pertumbuhan signifikan, khususnya di kalangan Generasi Z. Penelitian ini menggunakan pendekatan kuantitatif dengan data primer yang diperoleh melalui kuisioner. Teknik analisis yang digunakan adalah regresi linier berganda dengan bantuan aplikasi SPSS versi 21. Hasil penelitian menunjukkan persepsi resiko berpengaruh positif signifikan terhadap manajemen aset, literasi keuangan berpengaruh positif signifikan terhadap manajemen aset, dan perencanaan keuangan berpengaruh positif signifikan terhadap manajemen aset.

Kata kunci: *Cryptocurrency*, Literasi Keuangan, Perencanaan Keuangan, Persepsi Resiko

Abstract

This study aims to analyze the influence of risk perception, financial literacy, and financial planning on crypto asset management, with a case study on Generation Z in the Madiun Residency. In recent years, crypto assets (cryptocurrencies) have become one of the fastest-growing digital investment instruments, particularly among Generation Z. This research employs a quantitative approach using primary data obtained through questionnaires. The analytical technique used is multiple linear regression with the help of SPSS version 21. The results indicate that risk perception has a significant positive effect on asset management, financial literacy has a significant positive effect on asset management, and financial planning also has a significant positive effect on asset management.

Keywords: *Cryptocurrency, Financial Literacy, Financial Planning, Risk Perception*

A. INTRODUCTION

In recent years, cryptocurrency has become one of the digital investment instruments experiencing significant growth, particularly among Generation Z (Danurwenda & Suhartini, 2024). This generation is known as digital natives who are accustomed to technological developments, including blockchain, fintech, and other digital financial ecosystems (Gaol, 2025). This makes them relatively quick to become interested in and adapt to cryptocurrencies such as Bitcoin, Ethereum, and various altcoins. Cryptocurrency investment has developed into one of the most popular digital financial instruments in the world (Sulaksana & Sumanti, 2025). Crypto, short for cryptocurrency, is a digital currency based on blockchain technology that allows transactions without intermediaries such as banks (Sari, S.A & Nasution, 2024). This phenomenon has become increasingly massive, marked by a surge in global crypto users, including in Indonesia. The high interest in crypto assets is accompanied by very high risk levels, including sharp price fluctuations, potential scams (scam coins), and platform hacking. This situation requires investors to have adequate digital financial literacy as well as risk awareness (risk perception) before investing.

According to Ekasani et al. (2024), Generation Z, born between 1997–2012, emerges as a demographic group that is highly adaptive to technology, including digital investments such as cryptocurrency. Crypto assets like Bitcoin, Ethereum, and Solana are not only speculative instruments but also part of the dynamic financial lifestyle of digital-native Generation Z. The following shows cryptocurrency users across all age groups on the Bitget platform.

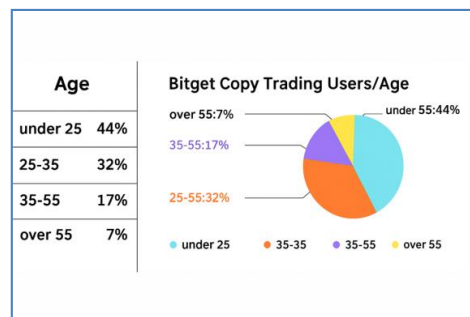


Figure 1 User Age Investor Kripto di Indonesia

Sumber: Pintu.co.id, 2025

Figure 1 shows that 44% of copy trading service users are under 25 years old, which demographically falls within Generation Z. This is followed by the 25–35 age group at 32%. These data confirm that cryptocurrency investment, including copy trading features, is dominated by young investors. The use of cryptocurrency in Indonesia has increased significantly in recent years, especially among younger age groups. Young people, particularly those aged 15 to 29, represent the largest segment interested in cryptocurrency investment. The following table presents the population by age group 15–29, reflecting the potential for crypto adoption in the region:

Table 1 Generasi Z Se Karesidenan Madiun

Kota/Kabupaten	Umur	Total
Kota Madiun	15–19	15.461
	20–24	15.758
	25–29	15.037
Kabupaten Madiun	15–19	48.450
	20–24	48.460
	25–29	49.750
Ponorogo	15–19	59.600
	20–24	62.500
	25–29	65.300
Ngawi	15–19	62.468
	20–24	62.955
	25–29	60.952
Pacitan	15–19	37.670
	20–24	41.470
	25–29	41.430
Magetan	15–19	46.550
	20–24	46.872
	25–29	44.288

Sumber: BPS, 2025

This phenomenon shows that Generation Z has a strong interest in digital assets as part of their financial strategy. According to Damodaran et al. (2024), asset management is a systematic process of planning, acquiring, managing, maintaining, and disposing of assets—whether physical, financial, digital, or intellectual—to maximize their value and contribution to objectives.

Cryptocurrency asset management is becoming an increasingly relevant topic as public interest, especially among young people, in technology-based investments grows (Darmawan et al., 2024). Unlike traditional investment instruments, cryptocurrencies are characterized by very high price volatility, regulations that are not yet fully stable, and technological risks such as hacking, loss of wallet access, and scams.



Figur 2 Proyeksi Kripto Manajemen Aset
Sumber: Grandviewresearch.com, 2025

The growth of the global cryptocurrency asset management market has shown a very significant trend from 2020 to the projected 2030. Based on Figure 2, the cryptocurrency asset management market is estimated to reach USD 818 million in 2024, with a compound annual growth rate (CAGR) of 24.6% through 2030. Some members of Generation Z tend to invest in cryptocurrencies driven by trends, fear of missing out (FOMO), or social media influence, rather than based on fundamental analysis or an understanding of risk perception (Aritonang & Hariwibowo, 2024). Risk perception is an individual's subjective assessment of the likelihood of an event and how concerned they are about the consequences resulting from that event (Urnika & Khasanah, 2023).

This phenomenon indicates that risk perception plays a crucial role in determining how wisely Generation Z can manage their cryptocurrency assets. The more accurate and realistic their risk perception, the higher the likelihood that Generation Z will apply rational, well-planned asset

management principles oriented toward long-term financial sustainability (Budiyono & Tololiu, 2025).

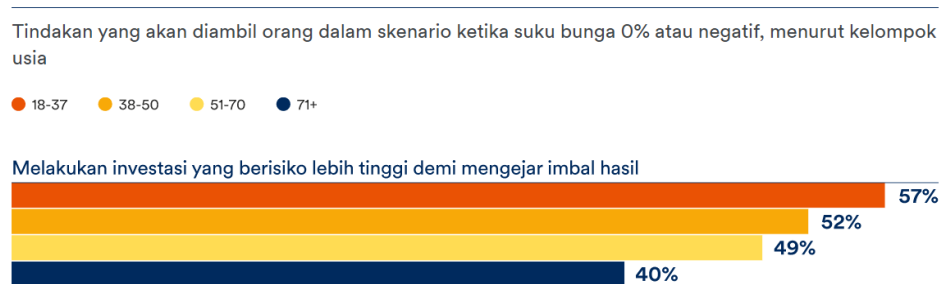


Figure 3 Tingkat Resiko di Kalangan Umur Investor

Sumber: Schroders, 2025

Figure 3 shows that the 18–37 age group tends to be the most aggressive in taking investment risks, with 57% of respondents opting for higher-risk investments to pursue greater returns. The 38–50 age group follows at 52%, then 51–70 years at 49%, and only 40% among those aged 71 and above. This difference reflects that younger generations have a more permissive or optimistic risk perception, making them more open to high-risk instruments such as speculative cryptocurrencies (Khalik et al., 2024). This aligns with Nizam (2023), who notes that risk perception directly affects investors’ portfolio composition. Investors with high risk perception tend to avoid high-risk assets and prefer stable and diversified portfolios.

The development of cryptocurrencies as a form of digital investment has attracted the attention of various groups, especially Generation Z. However, behind this enthusiasm, there is concern about low financial literacy, particularly regarding the ability to manage crypto assets wisely and strategically. Financial literacy, according to Bakri et al. (2024), is an individual’s ability to understand, manage, and use financial information for effective decision-making, including risk management and investment. Many novice investors still lack a solid understanding of these basic principles when investing in cryptocurrencies.



Sumber: Otoritas Jasa Keuangan (OJK)

Figure 4 Indeks Literasi Keuangan Indonesia 2024

Sumber: OJK, 2025

Based on data from the Financial Services Authority (OJK), Indonesia's financial literacy index in 2024 shows variations in financial understanding across age groups. The 26–35 age group recorded the highest index, approaching 75%, followed by the 36–50 and 18–25 age groups, which were above 60%. High financial literacy enables individuals not only to understand the benefits of investing but also to effectively and sustainably apply asset management principles (Elsa & Dasilah, 2024). This aligns with Hoeriah et al. (2023), who demonstrated a positive and significant influence of financial literacy on asset management.

Investing in cryptocurrency assets has now become part of the financial lifestyle of young people, including students and early-career professionals (Hamelinda et al., 2024). Unfortunately, despite the growing interest, financial planning is still not a strong habit among young investors. Many include cryptocurrencies in their portfolios without a clear financial plan. Financial planning, according to Laili (2022), is a systematic process that includes collecting financial data, setting short- and long-term goals, budgeting, managing debt, implementing savings or investment programs, and regularly monitoring and adjusting plans. In practice, however, many crypto

investors neglect these steps. They often use funds intended for consumption to buy crypto assets, lack clear portfolio allocation, and do not set loss tolerance (cut loss) or profit targets (take profit).

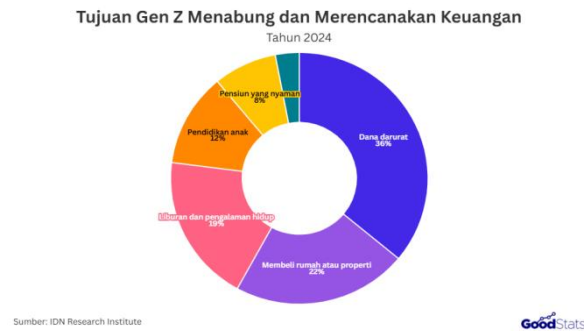


Figure 5 Tingkat Perencanaan Keuangan Generasi Z
Sumber: Goodstats, 2025

Figure 5 shows that Generation Z demonstrates a fairly high level of financial awareness in planning their future. The top priority for Generation Z in saving is for an emergency fund, accounting for 36%. This indicates that they understand the importance of having financial reserves to face unexpected situations. Additionally, 27% of respondents save to purchase a house or property, reflecting a strong desire to own fixed assets and achieve long-term stability. Other goals include vacations and life experiences (19%), children's education (10%), and a comfortable retirement (6%), showing that besides short-term needs, Generation Z also considers life balance and future planning. Although only 2% save for other purposes, overall, the data illustrates that Generation Z maintains a fairly balanced financial orientation between emergency needs, long-term investment, and personal satisfaction. This phenomenon is closely related to the importance of financial planning as an initial step in the asset management process. Without basic knowledge, individuals may struggle to create a financial plan that covers goals, resource allocation, and wealth growth strategies. Well-structured financial planning allows individuals to manage expenses, select investment instruments that match their risk profile, and gradually build an asset portfolio in a measured and systematic manner (Joseph, 2024).

THEORETICAL REVIEW AND HYPOTHESIS DEVELOPMENT

Asset Management

Cryptocurrency asset management is the process of managing digital assets based on blockchain technology (such as Bitcoin, Ethereum, etc.) that includes investment decision-making, diversification, security, and continuous portfolio monitoring. Asset management is defined as a systematic process of identifying, maintaining, monitoring, and optimizing the utilization of assets to deliver maximum value throughout their lifecycle (Hidayat, 2021). According to Pertiwi et al. (2023), asset management involves inventory, maintenance, asset valuation, and risk assessment to support more transparent and accountable financial management.

Risk Perception

Risk perception, according to Tangesow (2019), is an individual's subjective view regarding potential losses or dangers that may arise as a consequence of a decision or action, whether in economic, social, or personal contexts. This perception is shaped by various factors such as prior experience, information received, literacy level, psychological condition, and the influence of environment and media. Even when faced with the same risk, two individuals may perceive it very differently depending on how they evaluate the severity and likelihood of its occurrence.

Financial Literacy

Financial literacy, according to Winarti (2021), is an individual's ability to understand, manage, and make effective decisions regarding personal financial aspects, including budgeting, saving, investing, borrowing, and risk management. Financial literacy includes comprehension of fundamental economic and financial concepts such as compound interest, inflation, diversification, and prudent use of financial products and services. With good financial literacy, individuals are able to plan their finances in a more structured manner and avoid harmful financial mistakes..

Financial Planning

Financial planning, according to Putra & Martok (2025), is a systematic process of managing personal or organizational finances to achieve short-, medium-, and long-term financial

goals effectively and efficiently. This process involves assessing the current financial condition, setting realistic financial goals, and formulating strategies encompassing income management, expenditures, savings, investments, and debt control. Financial planning helps individuals and institutions make more targeted and responsible financial decisions.

HYPOTHESIS DEVELOPMENT

Based on the theoretical review, the research hypotheses are formulated as follows:

H1: Risk perception has an effect on cryptocurrency asset management – A Case Study on Generation Z in the Madiun Residency.

H2: Financial literacy has an effect on cryptocurrency asset management – A Case Study on Generation Z in the Madiun Residency.

H3: Financial planning has an effect on cryptocurrency asset management – A Case Study on Generation Z in the Madiun Residency.

B. RESEARCH METHOD

This study uses a quantitative method with primary data collected through Google Forms. The sample was selected using purposive sampling, totaling 384 respondents. The research instrument is a questionnaire using a Likert scale. Data processing in this study was carried out with the assistance of SPSS 21 software.

C. RESULTS AND DISCUSSION

Normalitas Test

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		384
Normal Parameters ^{a,b}	Mean	,000000
	Std. Deviation	3,45657557
Most Extreme Differences	Absolute	,068
	Positive	,068
	Negative	-,056
Kolmogorov-Smirnov Z		1,331

Asymp. Sig. (2-tailed)	,058
a. Test distribution is Normal.	
b. Calculated from data.	

Sumber: SPSS21, 2025

Based on the Kolmogorov-Smirnov test, the research findings indicate that the regression model has residuals that are normally distributed. This is evidenced by a significance coefficient of 0.058, which is greater than 0.05.

Multikolinieritas Test

**Table 3 Multikolinieritas Test
Coefficients^a**

Model		Collinearity Statistics	
		Tolerance	VIF
1	(Constant)		
	Persepsi Resiko(X1)	,833	1,200
	Literasi Keuangan(X2)	,843	1,187
	Perencanaan Keuangan(X3)	,844	1,185

Sumber: SPSS21, 2025

Based on Table, the calculation results show that the Variance Inflation Factor (VIF) values for all variables are less than 10. The variables, namely risk perception (X1), financial literacy (X2), and financial planning (X3), have VIF values < 10. This indicates that there is no strong correlation among the independent variables. In other words, multicollinearity among all independent variables is still tolerable. Additionally, the tolerance values for risk perception (X1), financial literacy (X2), and financial planning (X3) are all greater than 0.1, which confirms that multicollinearity does not occur among the independent variables. Therefore, regression testing can be conducted with significant results expected.

Heteroskedastistas Test

Table 4 Heteroskedastistas Test

Variabel	Sig.	Kesimpulan
Persepsi Resiko(X1)	0,700	Tidak Terjadi Heteroskedastisitas

Literasi Keuangan(X2)	0,070	Tidak Terjadi Heteroskedastisitas
Perencanaan Keuangan(X3)	0,396	Tidak Terjadi Heteroskedastisitas

Sumber: SPSS21, 2025

Based on Table 4, it is observed that the probability values for each variable are greater than 0.05 (alpha). Therefore, the decision is to accept H₀, indicating that there are no signs of heteroskedasticity.

Parsial t Test

Table 5 Parsial t (Uji t) Test

Model	Coefficients ^a				t	Sig.
	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. Error	Beta			
	(Constant)	8,513	1,200		7,093	,000
1	X1	,131	,047	,146	2,788	,006
	X2	,196	,053	,194	3,710	,000
	X3	,136	,050	,142	2,727	,007

a. Dependent Variable: Y

Sumber: Output SPSS

The t-test criteria are as follows: H₀ is accepted if $t_{count} < t_{table}$, and H₀ is rejected if $t_{count} \geq t_{table}$. The critical value is based on a significance level of 5% ($\alpha = 0.05$). To obtain t_{table} for a two-tailed test, with degrees of freedom $df = n - k - 1 = 384 - 3 - 1 = 380$, the t_{table} value is 1.966.

DISCUSSION

The Effect of Risk Perception on Cryptocurrency Asset Management among Generation Z in the Madiun Residency.

Based on the test results in Table 4.16, the t_{count} value was 2.788, which is greater than t_{table} 1.966, and the significance value was $0.006 < 0.05$. Therefore, H₀ is rejected and H₁ is accepted. This means the hypothesis is supported. In other words, risk perception has a significant effect on cryptocurrency asset management among Generation Z in the Madiun Residency.

The Effect of Financial Literacy on Cryptocurrency Asset Management among Generation Z in the Madiun Residency.

Based on the test results in Table 4.16, the tcount value was 3.710, which is greater than ttable 1.966, and the significance value was $0.000 < 0.05$. Therefore, H0 is rejected and H2 is accepted. This indicates that the hypothesis is supported. In other words, financial literacy significantly affects cryptocurrency asset management among Generation Z in the Madiun Residency.

The Effect of Financial Planning on Cryptocurrency Asset Management among Generation Z in the Madiun Residency.

Based on the test results in Table 4.16, the tcount value was 2.727, which is greater than ttable 1.966, and the significance value was $0.007 < 0.05$. Therefore, H0 is rejected and H3 is accepted. This means the hypothesis is supported. In other words, financial planning significantly influences cryptocurrency asset management among Generation Z in the Madiun Residency.

D. CONCLUSION

The results of this study indicate that risk perception affects cryptocurrency asset management among Generation Z in the Madiun Residency. This finding shows that the higher an individual's perceived risk, the more cautious they are in managing cryptocurrency assets. Financial literacy affects cryptocurrency asset management among Generation Z in the Madiun Residency. This finding suggests that the higher an individual's financial literacy, the better their ability to manage cryptocurrency assets strategically and systematically. Financial planning affects cryptocurrency asset management among Generation Z in the Madiun Residency. This indicates that the better an individual's financial planning, the more structured and prudent they are in managing cryptocurrency assets for the long term and goal-oriented purposes.

E. RECOMMENDATIONS

Future research can be further developed by expanding the respondent scope, not only limited to Generation Z in the Madiun Residency but also involving other generations or different geographic areas to obtain a more comprehensive picture of cryptocurrency asset management. Additionally, subsequent studies may include other variables such as the influence of social media, investment experience, or financial technology (fintech) on cryptocurrency asset management to broaden the understanding of factors influencing young investors' behavior in the digital ecosystem. A qualitative approach can also be employed to explore more deeply the motivations and perceptions of individuals in cryptocurrency investment decision-making..

REFERENCES

- Aritonang, D. E., & Hariwibowo, I. N. (2024). Fenomena “Fomo” Investasi Cryptocurrency: Analisis Sentimen. *Konstelasi: Konvergensi Teknologi Dan Sistem Informasi*, 4(2). <https://doi.org/10.24002/konstelasi.v4i2.10073>
- Bakri, A. N., Rasbi, M., & Amalina, Q. (2024). Pengabdian Masyarakat Tentang Literasi Keuangan Pada Pegawai Kemenag Kab. Luwu. 6(3).
- Budiyono, E. F. C. S., & Tololiu, G. C. (2025). Investasi Di Era Generasi Z: Analisis Gender Dan Persepsi Risiko Sebagai Faktor Pengambilan Keputusan. *Jurnal Ilmiah Manajemen, Ekonomi, & Akuntansi (Mea)*, 9(1), 181–203. <https://doi.org/10.31955/Mea.v9i1.4888>
- Damodaran, D., Regin, R., & Rajest, S. S. (2024). Analysis Of Fixed Asset Management With Traditional Financial Statement.
- Danurwenda, R., & Suhartini, D. (2024). Pengambilan Keputusan Investasi Cryptocurrency Pada Generasi Z. *Jurnal E-Bis*, 8(2), 573–583. <https://doi.org/10.37339/E-Bis.v8i2.1792>
- Darmawan, M. A., Munadiati, M., & Chalil, R. D. (2024). Analisis Perilaku Investor Muslim Millennial Di Kota Langsa Terhadap Keputusan Investasi Cryptocurrency. *El-Amwal*, 7(1), 81. <https://doi.org/10.29103/El-Amwal.v7i1.15892>
- Ekasani, D., Kuswinarno, M., Madura, U. T., Telang, J. R., Kamal, K., Bangkalan, K., & Timur, J. (2024). *Digital-Native Workforce: Strategi Pengembangan Sdm Untuk Generasi Z*. 5.
- Elsa, V., & Dasilah, R. A. (2024). Analisis Tingkat Literasi Keuangan Terhadap Resiko Finansial Di Kalangan Mahasiswa Universitas Muhammadiyah Palopo. 08(03).

- Gaol, A. V. L. (2025). Analisis Pemanfaatan Fintech Pada Generasi Z Dalam Belanja Online. 6(2).
- Haji, R. (2022). Urgensi Penerapan Kerangka Regulasi Aset Kripto Yang Komprehensif, Adaptif, Dan Akomodatif.
- Hamelinda, F., Setiawati, R., & Wediawati, B. (2024). Literasi Keuangan Dan Preferensi Risiko Terhadap Keputusan Investasi Cryptocurrency Pada Generasi Milenial Di Kota Jambi.
- Haryani, D. S. (2019). Pengaruh Persepsi Risiko Terhadap Keputusan Pembelian Online Di Tanjungpinang. *Jurnal Dimensi*, 8(2). <https://doi.org/10.33373/dms.v8i2.2155>
- Hidayat, U. (2021). Implementasi Manajemen Aset Tetap Pada Koperasi Fungsional Dalam Upaya Optimalisasi Pemanfaatan Aset Tetap. 1(2).
- Hoeriah, H., Yani, D., & Isyanto, P. (2023). Pengaruh Literasi Keuangan Terhadap Pengelolaan Keuangan Umkm Kedai Utuy Pulojaya Lemahabang. *Jurnal Penelitian Ekonomi Manajemen Dan Bisnis*, 2(3), 156–164. <https://doi.org/10.55606/jekombis.v2i3.1939>
- Ilham, R. N., & Sinurat, M. (2021). Analisis Potensi Dan Risiko Investasi Pada Instrumen Keuangan Dan Aset Digital Cryptocurrency Di Indonesia.
- Joseph, C. N. (2024). Peranan Literasi Keuangan Dalam Meningkatkan Kemampuan Pengelolaan Keuangan Pribadi.
- Khalik, A., Sultan, M. S., & Hamzah, M. (2024). Pengaruh Literasi Keuangan, Toleransi Resiko Dan Persepsi Resiko Terhadap Keputusan Investasi Crypto Currency Di Sulawesi Selatan. 21.
- Laili, D. A. N. (2022). Analisis Faktor Yang Memengaruhi Perencanaan Keuangan Pribadi Mahasiswa. 10.
- Marchyta, N. K., & Sutanto, E. M. (2024). Pentingnya Literasi Keuangan Untuk Pengelolaan Keuangan Pribadi Sejak Dini.
- Nabella, L., Safaruddin, S., & Santoso, R. (2022). Analisis Pengaruh Manajemen Aset Dalam Optimalisasi Aset Tetap Di Pt Semen Baturaja (Persero) Tbk. At Tariiz : *Jurnal Ekonomi Dan Bisnis Islam*, 1(03), 132–141. <https://doi.org/10.62668/attariiz.v1i03.314>
- Nizam, F. B. (2023). A Study On Risk Perception And Portfolio Management Of Equity Investors.
- Pertiwi, P. A. B., Isnowati, S., & Stikubank, U. (2023). Penerapan Manajemen Aset Dalam Pengelolaan Aset Daerah Di Kota Semarang. 5(2).
- Putra, A. S., & Martok, Y. (2025). Peningkatan Kesadaran Perencanaan Keuangan Pribadi Melalui Pelatihan Platform Digital Untuk Karyawan Cv Kencana. 3(1).

- Rumbik, F. E., Kurniawan, R., & Ginting, R. (2024). Menguak Perilaku Konsumtif Generasi Z Dalam Penggunaan Digital Payment Dan Literasi Keuangan Berdasarkan Mental Accounting: Sebuah Studi Fenomenologi. 12(2).
- Sari, S. A., & Nasution, M. I. P. (2024). Implementasi Teknologi Blockchain Dalam Uang Digital: Potensi Dan Dampaknya Terhadap Sistem Keuangan Global.
- Sulaksana, D., & Sumanti, M. (2025). Peran Cryptocurrency Dalam Diversifikasi Portofolio Investasi Di Era Digital. 02.
- Tangesow, N. (2019). Pengaruh Gaya Hidup Dan Persepsi Risiko Terhadap Keputusan Pembelian Pakaian Online (Studi Kasus Pada Mahasiswa Manajemen Unsrat 2014).
- Urnika, A., & Khasanah, I. (2023). Analisis Pengaruh Kepercayaan, Persepsi Risiko, Dan E-Service Quality Terhadap Keputusan Pembelian Di Lazada Dengan Minat Beli Sebagai Variabel Intervening.
- Winarti, W. (2021). Peranan Literasi Keuangan Dalam Mengatur Perencanaan Keuangan Individu.