

# Free float, firm size, stock return, and stock market liquidity: Asymmetric information interaction

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**ARTICLE INFO****Article history:**

Received Nov 9, 2024  
Revised Nov 12, 2024  
Accepted Nov 28, 2024

**Keywords:**

Asymmetric Information;  
Firm Size;  
Free Float;  
Liquidity;  
Stock Market.

**ABSTRACT**

This research was conducted to determine the effect of free float, firm size, and stock returns on liquidity in the stock market with information asymmetry as moderation. Quantitative research was based on panel data. The object of this research was companies included in the LQ45 index on the Indonesia Stock Exchange with an observation period of 2019-2023. This study applied the regression model equation test with Moderated Regression Analysis (MRA) analysis with Eviews 12 software. The results of this study found that free float and firm size had a significant negative effect on market liquidity, while stock return did not have a significant impact on stock market liquidity in LQ45. Information asymmetry in this study could not moderate the relationship between free float and stock return on liquidity. With the value of data, variation was found to have a wide range of values, which indicated that the variables are volatile.

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**1. Introduction**

The positive achievements of the Indonesian capital market in the last three years have fueled hopes for Indonesia's economic growth for the next year. The increase in investors in the capital market was supremised by the increase in the number of investors who invested in stock instruments exclusively experienced a fantastic increase of 811 thousand to 5.25 million as reported by the official website of the Indonesia Stock Exchange (IDX). Stock instruments play a vital role in the economy especially for companies to raise capital and investors to diversify portfolios. The high surge of stock investors in the Indonesian capital market, monitoring by the competent authority is considered very important in creating market conditions that uphold the credibility and efficiency of transactions on the exchange.

To create regular, fair, and efficient trading in the capital market as stated in Law Number 8 Year 1995 Chapter III Article 7 paragraph 1 and as an effort to increase protection for investors by the Indonesia Stock Exchange as the supervisor of issuers since February 2019, the free float ratio or the number of shares owned by the public with less than 5% ownership will be included in the calculation of the index valuation weight. The addition of this weighting aims to estimate the readiness of shares in the benchmark index and the implementation of free float. The IDX found a high total market capitalization. However, the amount of free float circulating in the public is only one-third of the total market capitalization (Mutira, 2019).

Free float shares in Thailand have the same number of controlling shareholders as public shareholders with an average composition of 50%, in contrast in Indonesia the number of shares outstanding and ready to be traded is only 20%-30% in each industry, making controlling investors or strategic investors the owners of most of the issued shares (Ismailyah, 2020). According to Ding et al., (2016) this is a company's strategy so that the ownership structure of the company is still regulated by the founder or

management of the company and to facilitate making company policies by channeling its shares to strategic investors. When the dominant shares are owned by the public, company policies tend to be adjusted to the interests of investors who have a big portion of shares. As a result, many companies apply free float only to fulfill the requirement of the Indonesia Stock Exchange of 7.5%, to remain listed and able to transact in the stock market.

Market liquidity is a crucial factor, according to Purwanto & Purwanto (2020) stock liquidity is one of the elements that can grow company value. Companies with productive stock liquidity visualize the company's progress in managing company performance and opportunities from investors' understanding (Jannah & Faisal, 2019). Stock market liquidity is an effort to achieve maximum stock trading capacity with low transaction prices (Sidhu, 2016). Two components impact stock market liquidity, namely, company size and book value Danil & Yusra (2019). In addition, stock returns also affect stock market liquidity (Marozva, 2019). A liquid market shows the state of securities, especially in stock instruments, which are converted to cash (cash) and easy to trade so that high liquidity can increase price efficiency, and become an attractive consideration for the investors (Satria & Adnan, 2018).

Various opinion from previous researchers regarding the effect of free float on liquidity was found; according to Ibrahim (2021) free float has a negative effect on liquidity that the higher the level of free float is contrary to the higher level of stock trading. However, according to Martysz (2023) who found a positive relationship between free float and stock market liquidity. According to Putri (2022); Viratama et al (2022) firm size does not have a positive relationship with stock liquidity and cannot increase the smoothness of trading activities that have an impact on liquidity. However, contrary to Nurhaeda (2019); Ferdila et al (2023) companies with large firm sizes have a positive and significant effect on liquidity.

So that the gap in previous research made researchers interested in finding out the effect of these variables on liquidity, which distinguished this research from the previous research, this recent research added information asymmetry moderation variables which were still little empirically found so researchers are expected to provide an understanding of whether asymmetry can moderate the effect of independent variables; free float, firm size, and stock return on liquidity in the Indonesian stock market.

The Indonesia Stock Exchange created the LQ45 Index (LiQuid45) including 45 selected issuers that had a large capitalization value and were relatively easy to trade so that they had a high level of liquidity which tended to be actively traded and visualized good market conditions. The IDX periodically evaluated stocks by fulfilling the minimum weighting of 5% free float shares so that it was relevant to this research. This research was conducted to determine the effect of free float shares on liquidity in the stock market with information asymmetry as moderation and added the effect of firm size, and stock return on liquidity in the stock exchange.

An increase in institutional ownership suggests that when financial institutions such as banks and corporations hold a larger proportion of a company's shares, market liquidity tends to decrease (El-Nader, 2018). Large institutions are less likely to engage in frequent trading activities compared to free-float investors, who typically participate actively in the market. Consequently, this can negatively impact market liquidity.

Both Indonesia and Thailand have implemented policies aimed at maintaining company listings by increasing the percentage of publicly held shares (free float), as reported by Bloombergtechnoz. This strategy aims to bolster investor confidence and sustain trading activity on the exchange. However, despite sharing this common objective, a disparity remains in the implementation of free float requirements between the two countries, with Indonesia exhibiting a lower percentage (Ismailsyah, 2020). According to (Ding et al., 2016), this discrepancy is intentional, allowing companies to retain greater control over corporate policies. Such practices may consequently impact the efficiency of the Indonesian stock market.

## 2. Research Method

This research was panel data-based quantitative research by collecting secondary data from annual reports published on the company's official website. The object of this research was companies listed on the LQ45 index on the IDX with an observation period of 2019-2023. Sampling data with purposive sampling, including companies consistently listed on the LQ45 index and had complete annual reports, as many as 29 companies listed with 16 companies that did not have complete annual report data were then eliminated and produced 145 observations. This research model was developed using the best E-views model, namely the

Common Effect Model, then continued with the classical assumption test to meet the eligibility standards, testing the regression model equation with Moderated Regression Analysis (MRA) analysis.

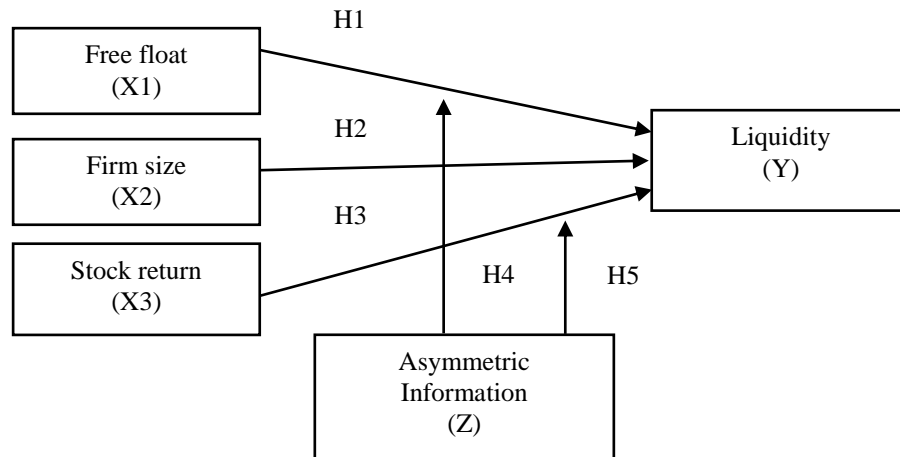


Figure 1. Conceptual framework

This study described two research models in econometric equations. Each model showed the relationship between variables and their measurements, as follows.

$$L_{it} = \alpha + \beta_1 FF + \beta_2 FS + \beta_3 SR + \varepsilon_{it} \dots \dots \dots (1)$$

$$L_{it} = \alpha + \beta_1 FF + \beta_2 FS + \beta_3 SR + \beta_4 FF * AI_{it} + \beta_5 SR * AI_{it} + \varepsilon_{it} \dots \dots \dots (2)$$

Where:

L	= Liquidity
$\alpha$	= Constant
$\beta$	= Regression coefficient
AI	= Asymmetric Information
FF	= Free Float
FS	= Firm Size
SR	= Stock Return
$\varepsilon$	= Error term

### Hypothesis Development

Free float on liquidity, in signal theory, Michael Spence (1973) explained how parties who have important information can send signals to information recipients. According to Puspitaningtyas (2019) companies need to give signals to investors about the company's potential.

So, through the free float, shares were traded to the public as a form of the company giving signals to investors which showed the company's transparency so that it could affect the good or bad assessment of investors in deciding investment decisions so that it affects the liquidity of shares in the market. According to Ibrahim (2021) free float has a negative effect on liquidity that the higher the level of free float is inversely proportional to the increase in stock trading.

Free float contributes to market liquidity by modifying the company's trading activity, high free float indicates increased market capitalization, making stocks more liquid Martysz (2023); Viratama et al., (2022) found a positive relationship between free float and stock market liquidity. Free float can be measured through the proportion of individual and institutional shareholders outside the main controlling group divided by the number of shares in paid-up capital (Ding et al., 2016). H1: Free float has a negative effect on liquidity.

Firm size on liquidity, company size is one of the various characteristics that affect the company (Malini, 2024). Company capacity presents the scale of the company as measured by the increase in the amount of company equity, the greater the size of the company, the potential to attract investors to invest. According to Putri (2022); Viratama et al., (2022) firm size does not have a positive relationship with

liquidity and cannot increase the smoothness of trading activities. However, according to Nurhaeda (2019); Ferdila et al., (2023) companies with large firm sizes have a positive and significant effect on liquidity. So that it increases trading transactions on the stock exchange which has an impact on high market liquidity and provides flexibility to investors thereby increasing market efficiency and company value. However, firm size is a value that shows the size of the company which is obtained using the natural logarithm of total assets Sanjaya et al., (2023), so it can be concluded that: H2: Firm size has a negative effect on liquidity.

Stock return on liquidity, stock return as a measuring tool to assess company performance Fadilla & Ismawati (2021), the dynamics of stock returns correlate with trading activity, stocks with high return expectations can trigger investors' desire to invest funds so that they refer to the dynamics of market productivity. Stock return can be interpreted as a form of return obtained by investors in return for the results of stock investment (Marozva, 2019).

According to amihud (2002) in Lam et al., (2019) found a positive relationship between liquidity and stock expectations and according to Nurhaeda (2019) Stock return is measured by the difference in the current year's stock market closing price minus the previous year's stock market closing price divided by the current year's stock market closing price (Laksmiwati et al., 2023; Putri, 2022). Then the following hypothesis can be proposed: H3: Stock return has a positive effect on liquidity.

Information asymmetry moderates free float on market liquidity, according to agency theory by Michael C. Jensen (1976) stated that conflicts of interest between shareholders (principals) and managers (agents) often cause agents to act in their interests rather than in the interests of the principal, this can occur when there is an information gap or information asymmetry where the agent has more information regarding the use of company resources, so that it can affect free float refers to the proportion of shares available for trading in the public. According to Astari & Suidarma (2020), company management is assumed to have information that is not listed in the public about the company's true potential, high asymmetry causes investors' perceptions of investment risk so that they are less interested in making transactions which in turn can disrupt smooth trading in the stock market and vice versa. Information asymmetry can be measured by the value of market capitalization added by debt divided by total assets Barus (2021), so it can be concluded that: H4: Information asymmetry moderates the effect of free float on liquidity.

Information asymmetry moderates stock return on liquidity, information asymmetry indicates the unequal distribution of information between information distributors and shareholders (Barus, 2021). In agency theory, Michael C. Jensen (1976) stated that conflicts of interest between shareholders (principals) and managers (agents) often cause agents to act in their interests and ignore the interests of the principal, when information gaps or information asymmetry occur, conditions where agents have more information regarding the use of company resources.

So that investors who aim to get high returns tend to avoid the risk of loss which ultimately affects the smoothness or liquidity of stock trading in the market. Sugiantara (2022), stated that information asymmetry moderates the effect of stock return on liquidity. Liquidity is seen from Trading Volume Activity (TVA), namely the number of shares traded divided by the number of shares outstanding Oktaviana et al., (2024), so it can be concluded that: H5: Information asymmetry moderates the effect of stock return on liquidity.

### 3. Result and Discussion

In determining the model specification, analyses were conducted using the Chow test, Hausman test, and Lagrange Multiplier test, which indicated that the best model for this study was the Common Effect Model (CEM). The results of multicollinearity and heteroscedasticity tests have fulfilled the classical assumption test to ensure that no abnormality occurs.

According to (Nahdlah et al., 2023) the results of descriptive statistical tests to understand the data through the average value, maximum, minimum standard deviation can be seen in Table 1.

**Table 1.** Deskriptive statistic

	FF	FS	SR	AI	L
Mean	0,383575	19,05197	5332,007	406745,1	2348,471
Maximum	0,646686	29,611192	52999,00	9623960	40807,30
Minimum	0,037584	14,06128	169,0000	0,005024	0,000000

Std.Dev.	0,116176	2,902030	8020,791	1166711	5928,052
Observations	145	145	145	145	145

Source: Processed Data by Eviews 12, 2024

Table 1 shows that the data distribution for all variables of free float, firm size, stock return, asymmetric information, and liquidity, shows a mean value of 0.383575 to 19.05197, indicating that the data distribution shows a wide range of data variation. It was found that some variables have Std. Dev value was higher than the Mean value such as the firm size variable ( $2.902030 > 19.05197$ ), stock return ( $8020.791 > 2439.000$ ), asymmetric information ( $1166711 > 614.2373$ ), indicating that these variables were volatile.

The results of hypothesis testing of panel data regression with the Common Effect Model (CEM) can be seen in the following table.

**Table 2.** Model estimation

No	Variabel	Model 1	Model 2
1.	C	16626,36	17118,16
	P - Value	0,0000	0,0000
2.	FF	- 17724,66	-16737,11
	P - Value	0,0001***	0,0002***
3.	FS	- 375,4182	- 409,2535
	P - Value	0,0229**	0,0139**
4.	SR	0,061269	0,048258
	P - Value	0,3159	0,4718
5.	FF*AI	-	- 0,001184
	P - Value	-	0,3046
6.	SR*AI	-	- 4,88E-08
	P - Value	-	0,6597
	F - Statistic	6,754725	4,605842
	P - Value	0,000273	0,000642
	Adjusted R-Squared	0,107055	0,111271

Description of Dependent, L = Sig 1%\*\*\* and Sig 5%\*\*

The results of the analysis of model-1 and model-2 found that H1 Accepted: free float had a negative effect was found to be consistent in the test results of the two models above, in line with Ibrahim (2021) that free float has a negative effect on liquidity that the higher the level of free float is inversely proportional to the high stock trading.

Through free float, namely, shares traded to the public as a form of a company giving signals to investors which showed the company's transparency, so that it could affect the good or bad assessment of investors, the low free float could reflect low transparency as well, it affected investors in determining investment decisions in the company.

The results of the analysis of model-1 and model-2 found H2: Accepted, firm size was found to consistently have a negative effect on market liquidity. In line with Putri (2022); Viratama et al., (2022) that firm size does not have a positive relationship with stock liquidity and cannot increase the smoothness of trading activities that have an impact on liquidity. When the size of the company increased, the share price also increased so it affected the decline in investor interest, ultimately affecting the smoothness of trading activities.

The results of the analysis of model-1 and model-2 found H3: Rejected, the test results showed the effect of stock return on market liquidity consistently had no significant effect. Generally, stocks with expectations of large returns can add a tendency to allocate funds which in time will have an impact on stock market liquidity (Natsir et al., 2023).

However, there was a possibility that due to the expectation of high stock or stock returns, the investors retained their shares, because they hoped to get a large profit in the future. According to Jadoon et al., (2024) investors are willing to pay a premium for the benefits of liquidity, such as ease of trading and lower price effects. As a result, stocks with increased liquidity tended to have minimal return expectations compared to illiquid stocks. This relationship between liquidity and return expectations was an important consideration for investors when making investment decisions.

The results of the model-2 analysis after the interaction test found H4: Rejected, information asymmetry did not moderate the effect of free float on liquidity. Information asymmetry was found to not

always moderate the effect of free float on liquidity in the market, it could be influenced by aspects outside this study. For example, when investors already understand and have good research information about the state of the market or company, then asymmetry cannot affect investment decisions by investors. So that when free float provided a signal as described by signal theory, namely the company's openness was carried out by sharing its share ownership with the public, thus investors could examine the results of information research that has been collected and determine quality investment decisions, it could have an impact on market liquidity directly without being affected by information asymmetry and when market efficiency was high which reflected the transparency of important information through stock prices that could adjust the latest information, it made investors more confident to operate trading activities that affected market liquidity.

The results of the model-2 analysis after the interaction test, H5: Rejected, the test results of information asymmetry did not moderate the effect of stock returns on market liquidity. In signal theory, it is explained that investors with a better understanding can assess signals from managers or agents related to stock returns. Thus, information asymmetry did not affect investor assessments when investors already had quality information so without the influence of information asymmetry investors could carry out transactions that had an impact on stock market liquidity.

After conducting the interaction test, it was found that the Adjusted R-Square value increased by 1% on the effect of the independent variables tested with information asymmetry on market liquidity, where before the interaction the value of the effect was 10%, and after the interaction, the effect of information asymmetry on liquidity increased to 11%. In both models, the F statistic value showed that FF, FS, and SR variables simultaneously affected liquidity with the values of model-1 ( $0.000273 < 0.05$ ) and model-2 ( $0.000642 < 0.05$ ).

#### 4. Conclusion

The results of this study found that free float and firm size had a significant negative effect on the smooth trading activities of the stock market in LQ45. Information asymmetry could not moderate the relationship between the effect of free float and stock return on liquidity. The value of data variation was found to have a wide range of values and indicated that the variables in this study were volatile. Several limitations were found, such as a limited research period and a specific sample of companies, limited variables for future researchers require a wider scope to provide a more comprehensive understanding, and pay attention to other elements outside this study, and suggest developing a research model to produce more reliable and relevant data.

In signal theory, it is explained that investors with a better understanding can assess signals from managers or agents related to stock returns. Thus, information asymmetry did not affect investor assessments when investors already had quality information so without the influence of information asymmetry investors could carry out transactions that had an impact on stock market liquidity. A comprehensive understanding of the relationship between stock returns and liquidity requires considering multiple factors, including information asymmetry, disclosure quality, firm size, and industry sector.

A comprehensive analysis of the relationship between free float adjustments, firm size, stock returns, and liquidity within the Indonesian stock market, particularly the LQ45 index, can provide valuable insights for investors, corporate managers, and policymakers. By understanding how these factors interact, stakeholders can make more informed decisions regarding investment strategies, corporate actions, and regulatory policies. Such an analysis can contribute to a more efficient and liquid stock market, benefiting both domestic and foreign investors.

#### ACKNOWLEDGEMENTS

We would like to express our gratitude to the Faculty of Economics and Business, Universitas Tanjungpura, for facilitating the writing of this article and to the friends and lecturers who have been involved in this writing. May God bless you

#### References

Astari, N. K. P., & Suidarma, I. M. (2020). Analisis Perbedaan Trading Volume Activity, Bid-Ask Spread Dan Abnormal

- Return Sebelum Dan Sesudah Stock Split Di Pt Unilever Indonesia Tbk. *Jurnal Ilmiah Akuntansi Dan Bisnis*, 5(2), 14–26. <http://journal.undiknas.ac.id/index.php/akuntansi>
- Br. Barus, S. F. (2021). *Laba Pada Perusahaan Food and Beverages Yang Terdaftar Di Bursa Efek Indonesia Skripsi Oleh : Sri Friska Devi Br . Barus Fakultas Ekonomi Dan Bisnis Universitas Medan Area Medan Skripsi Oleh :*
- Danil, A., & Yusra, I. (2019). *Pengaruh Kausal Antara Ukuran Perusahaan, Nilai Buku Dan Likuiditas Saham Di Bursa Efek Indonesia*. 1–11.
- Ding, X. S., Ni, Y., & Zhong, L. (2016). Free float and market liquidity around the world. *Journal of Empirical Finance*, 38(71303155), 236–257. <https://doi.org/10.1016/j.jempfin.2016.07.002>
- Fadilla, M. Z., & Ismawati, L. (2021). Pengaruh Profitability, Leverage Dan Ukuran Perusahaan Terhadap Pengembalian Saham Pada Perusahaan Pertambangan Sub-Sektor Batu Bara Yang Terdaftar Di Bursa Efek Indonesia (Bei) Periode 2014-2019. *Journal of Economics, Management, Business and Accounting*, 1(1), 63–72. <https://doi.org/10.34010/jemba.v1i1.5020>
- Ferdila, F., Mustika, I., & Martina, S. (2023). Pengaruh Firm Size, Likuiditas, Leverage Dan Profitabilitas Terhadap Nilai Perusahaan Pada Perusahaan Manufaktur Sub Sektor Barang Konsumsi Yang Terdaftar Di Bursa Efek Indonesia. *Owner*, 7(4), 3274–3284. <https://doi.org/10.33395/owner.v7i4.1883>
- Ismailiyah. (2020). Analisis Pengaruh Free Float Saham-Saham First Liner, Second Liner, dan Third Liner terhadap Likuiditas Saham. *Jurnal Ilmiah Mahasiswa FEB*, 9(1), 1–28.
- Jadon, U., Shah, S. Q., Iqbal, A., Raza, H., & Mubeen, M. (2024). *Free Float and Stock Liquidity: Evidence from Pakistan Stock Exchange Research Journal for Societal Issues Free Float and Stock Liquidity: Evidence from Pakistan Stock Exchange. September*. <https://doi.org/10.56976/rjsi.v6i3.275>
- Jannah, W., & Faisal. (2019). Pengaruh Corporate Governance Terhadap Likuiditas Saham Di Indonesia. *Jurnal Ilmiah Mahasiswa Ekonomi Manajemen*, 4(4), 672–684. <http://jim.unsyiah.ac.id/ekm>
- Laksmiwati, M., Meidiyustiani, R., Oktaviani, R. F., & Priyanto, S. (2023). The Role of Dividend Policy as An Intervening of Financial Performance on Company Value. *International Journal of Social Service and Research*, 3(1), 170–180. <https://doi.org/10.46799/ijssr.v3i1.234>
- Lam, K. S., Tam, L. H., & Dong, L. (2019). Liquidity and stock returns: evidence from the Chinese stock market. *China Accounting and Finance ...*, December. [https://www.researchgate.net/profile/Keith-Lam/publication/343713964\\_Liquidity\\_and\\_Stock\\_Returns\\_Evidence\\_from\\_the\\_Chinese\\_Stock\\_Market/links/61d2afb0e669ee0f5c8183f0/Liquidity-and-Stock-Returns-Evidence-from-the-Chinese-Stock-Market.pdf](https://www.researchgate.net/profile/Keith-Lam/publication/343713964_Liquidity_and_Stock_Returns_Evidence_from_the_Chinese_Stock_Market/links/61d2afb0e669ee0f5c8183f0/Liquidity-and-Stock-Returns-Evidence-from-the-Chinese-Stock-Market.pdf)
- Malini, H. (2024). Firm Size, Profitability, and ESG Disclosure in Indonesia: Geographical Location As Moderating Variable. *International Journal of Economics Development Research*, 5(2), 2024–2878.
- Marozva, G. (2019). Liquidity And Stock Returns: New Evidence From Johannesburg Stock Exchange. *Journal of Developing Areas*, 53(2), 79–90. <https://www.jstor.org/stable/26501907>
- Martysz, C. B. (2023). Free Float in the Polish Capital Market and Its Importance for Investors. *Annales Universitatis Mariae Curie-Skłodowska, Sectio H – Oeconomia*, 56(4), 83–106. <https://doi.org/10.17951/h.2022.56.4.83-106>
- Michael C. Jensen, W. H. M. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Mutira, P. (2019). Adakah Pengaruh Free Float Terhadap Pelaku Pasar Saham Di Indonesia? *Jurnal Bisnis Dan Akuntansi*, 21(1), 39–46. <https://doi.org/10.34208/jba.v21i1.424>
- Nahdlah, Y. H., Fathoni, A. Z., & Hafiz, H. S. (2023). Pengaruh Asimetri Informasi, Ukuran Perusahaan dan Kinerja Perusahaan terhadap Praktik Manajemen Laba. *Riset, Ekonomi, Akuntansi Dan Perpajakan (Rekan)*, 4(1), 15–30. <https://doi.org/10.30812/rekan.v4i1.2754>
- Natsir, K., Bangun, N., & Waani, A. M. (2023). Analisis Faktor-Faktor yang Mempengaruhi Likuiditas Pasar Saham. *Jurnal Ekonomi*, 28(2), 155–176. <https://doi.org/10.24912/je.v28i2.1414>
- Nurhaeda, A. (2019). Pengaruh Free Float Terhadap Likuiditas Saham Pada Perusahaan-Perusahaan Yang Tercatat Di Bursa Efek Indonesia. *Tangible Journal*, 4(2), 231–244. <https://doi.org/10.47221/tangible.v4i2.81>
- Purwanto, E., & Purwanto, A. D. B. (2020). An investigative study on sustainable competitive advantage of manufacture companies in Indonesia. *Business: Theory and Practice*, 21(2), 633–642. <https://doi.org/10.3846/btp.2020.12256>
- Puspitaningtyas, Z. (2019). Empirical evidence of market reactions based on signaling theory in Indonesia Stock Exchange. *Investment Management and Financial Innovations*, 16(2), 66–77. [https://doi.org/10.21511/imfi.16\(2\).2019.06](https://doi.org/10.21511/imfi.16(2).2019.06)
- Sanjaya, S., Parlindungan, Hidayat, R., Nainggolan, E. P., & Surna, G. (2023). Effect of Company Size and Profitability on Tax Aggressiveness Listed on The Indonesia Stock Exchange. *Journal of Management Science (JMAS)*, 6(1), 15–19.
- Sastri Melinda T. Putri. (2022). *Analisis Pengaruh Free Float Terhadap Likuiditas Saham*.
- Satria, K., & Adnan. (2018). Analisis Peristiwa Stock Split Terhadap Harga Saham, Likuiditas Saham dan Abnormal Return (Studi Kasus Pada Perusahaan Manufaktur Yang Terdaftar di Bursa Efek Indonesia Tahun 2011-2015). *Jurnal Ilmiah Mahasiswa Ekonomi Akuntansi (JIMEKA)*, 3(3), 364–384.
- Sidhu, M. K. (2016). Corporate Governance and Stock Market Liquidity. *Journal of Commerce and Accounting Research*, 5(3), 2012. <https://doi.org/10.21863/jcar/2016.5.3.033>
- Sugiantara, P. W. (2022). Analisis Perilaku Herding Berdasarkan Kondisi Pasar Dengan Asimetri Informasi Sebagai Variabel Pemoderasi. *E-Jurnal Akuntansi*, 32(3), 721. <https://doi.org/10.24843/eja.2022.v32.i03.p13>
- Sundari Oktaviana, Adler Haymans Manurung, Wirawan Widjanarko, Muhammad Richo Rianto, & Jhonni Sinaga.

- (2024). Determinan Likuiditas Pasar di Bursa Efek Indonesia. *MASMAN: Master Manajemen*, 2(3), 47–60. <https://doi.org/10.59603/masman.v2i3.443>
- Syaipul Malik Ibrahim, D. H. (2021). Penyebaran Kepemilikan, Likuiditas, Dan Nilai Perusahaan: Bukti Dari Indonesia. *Jurnal Ilmiah Indonesia*, 6(12), 6397–6407.
- Viratama, D. I., Hasnawati, S., & Hendrawati, E. (2022). Free Float and Volatility Effect on Stock Liquidity in Indonesia Stock Exchange. *Asian Journal of Economics, Business and Accounting*, 22(23), 248–256. <https://doi.org/10.9734/ajebe/2022/v22i23869>