Enrichment: Journal of Management, 12 (4) (2022)

Published by: Instiute of Computer Science (IOCS)

Enrichment: Journal of Management

Journal homepage: www.enrichment.iocspublisher.org

Price Reversal : Overreaction and Liquidity in Sharia Manufacturing Shares Listed in the Indonesia Sharia Stock Index (ISSI) for the Period 2019 – 2021

M. Rizkita Yoga[1], Siti Komariah[2]

[1,2]Department of Business and Management, Universitas Widyatama, Bandung, Indonesia

ARTICLE INFO

Article history:

Received Sep 21, 2022
Revised Oct 10, 2022
Accepted Oct 23, 2022

Keywords:

Price Reversal
Overreaction and Liquidity
Manufacture
Sharia Stock

ABSTRACT

In choosing their desired types of investment, investors often considered several factors. The objective of this study is to examine the influence of overreaction and liquidity on price reversal phenomenon. The method used is descriptive research method with quantitative approach. We employed secondary data obtained from the 73 sharia manufacturing companies that are registered in the Indonesia Sharia Stock Index (ISSI) during the period 2019-2021, which is determined using several criteria. Based on the analysis results, it is indicated that there is an effect of overreaction and liquidity on price reversals on Sharia Manufacturing shares listed on the ISSI during the period 2019-2021. This study highlighted that overreaction phenomenon is a major problem for investors and the company itself.

Corresponding Author:

M. Rizkita Yoga,
Department of Business and Management,
Universitas Widyatama,
Jl. Cikutra No.204A, Sukapada, Kec. Cibeunying Kidul, Kota Bandung, Jawa Barat 40125, Indonesia
Email: yoga.pangestu@widyatama.ac.id

INTRODUCTION

Information related to stock prices in the capital market is the main key for investors in determining the purchase or sale of shares. All information that is spread is a necessity for investors as confidence to know the conditions or direction of market movements so that they can determine the allocation of their sources of funds (Abiprayu, K. B, 2022). In responding to information, of course, it can affect the psychology of investors in determining investment decisions. These psychological factors will later become the peak point of influence on investors in investing and also determine the results to be achieved (Liu, C., Wu, Y., & Zhu, D, 2022). Therefore, investment analysis with psychological science and financial science is known as Behavioral Finance (Hojaji, S. N, 2022; Vasileiou, E 2021). According to Pompian, M (2012) Behavioral Finance is a theory of the psychological influence of investors in making financial allocation decisions when market conditions are uncertain. These psychological factors can determine investment decisions and also the results that will be obtained. Behavioral Finance describes how an investor manages and uses his finances. Effective use of finance is a form of one's responsibility for his financial behavior (Suhari, Trinugroho, Rahardian, & Ivada, 2011). Investors with a high level of risk always make repeated investments in investment products that have a high risk. Meanwhile, investors with low risk levels prefer to invest in products with low

risk and are relatively rare. The importance of knowing market conditions in the capital market is something that must be known by investors (Ahmer, F,2021) . To find out market conditions in the capital market, there is a concept that is often used by investors, namely the Efficient Market Hypothesis or what is often called the Efficient Market Hypothesis (EMH).

Efficient Market Hypothesis (EMH) is a capital market hypothesis that explains the price of a stock which is always reflected from the information available in the market (Singh, J. E, 2021). This hypothesis becomes a reference for investors in making investment decisions (Parveen, et al, 2020). In 1970, Fama introduced the Efficient Market Hypothesis (EMH) for the first time. A market is said to be efficient if the price is formed from a reflection of existing information so that it can cause investors not to get abnormal returns. The COVID-19 pandemic is an event that has had a negative impact on various sectors, one of which is the capital market sector (Aharon, D. Y, 2021). The phenomenon of the COVID-19 pandemic creates information that can affect investors' psychology, causing overreactions to investors in making transactions as well as uncertainty in significant price changes. Conditions of high uncertainty due to the outbreak of the COVID-19 pandemic caused investors to react to these events, which could lead to an overreaction phenomenon (Borgards, O, 2021)

The phenomenon of the COVID-19 pandemic has certainly had a major impact on the investment world in Indonesia. Fluctuations that occur in the capital market certainly affect the behavior of investors in carrying out investment activities because in analyzing the capital market, of course, one must know the economic conditions in the industrial sector in Indonesia. On August 24, 2020, it was noted that the issuer PT. Astra International Tbk experienced a 44% decline in net income per share due to the pandemic. The spread of the COVID-19 pandemic virus resulted in a significant impact on car sales so that it fell by 45% and 40% for motorcycle sales (Idxchannel.com, 2020). In addition, the impact of the COVID-19 pandemic has also affected the price fluctuations of the ISSI (Indonesia Sharia Stock Index) in the last 5 years. There was a drastic decline at the beginning of the 2020 period. The drastic decline was caused by the emergence of information about the COVID-19 pandemic which was responded to excessively by investors and of course caused panic so that investors sold their shares to protect their assets. The overreaction action had an impact on determining stock price movements to decrease by 16.5% in January-February 2020. This phenomenon provoked a price reversal that occurred in early March 2020 which caused the ISSI to increase to 13.9%.

Another phenomenon is shown by the data on the significant decline in the stock price of the JCI, where there was a drastic change in the price in the opposite direction after that. On May 12, 2022, the stock price of JCI experienced a large decline with a return of -3.17%. Even though on May 13, 2022 there was still a decline in returns of -0.03%, but in the following days there was an increase in changes with positive returns of 0.70%, 2.24% and then on May 19, 2022 of 0.44%. This phenomenon proves that price declines and stock price reversals occurred in the Composite Stock Price Index (JCI), while during the COVID-19 pandemic, the movement of the sharia index in Indonesia accelerated and performed positively in the midst of the pandemic. The Indonesia Stock Exchange noted that since the Covid-19 case in Indonesia, ISSI rose by 13.9% while JII70 was 12.3% and JII increased by 7.8%. These results prove that the three sharia indices experienced better movements compared to LQ45 and IDX30 during the early period of the covid-19 pandemic (kontan.co.id, 2021).

Price reversal in the opposite direction indicates that the market has overreacted to information (DeBondt & Thaler, 1985). Such information can encourage investors to overreact, causing a price reversal. The price reversal phenomenon can make stock prices in the capital market abstract due to price reversals caused by overreaction to information that cannot be anticipated so that it can cause losses for various parties, especially for investors who can get negative returns. The price reversal change is a deviation from the efficient capital market hypothesis which is usually called the winner-losser anomaly. The overreaction hypothesis states that investors tend to overreact to new information. Overreaction is caused by the circulation of information received by investors

in excess. The circulation of this information has an impact on investors' psychology which can result in price spikes that are too high for good news (good news) and prices that are too low for bad news (bad news).

Based on the phenomena and results of several studies, it shows that there are differences of opinion regarding overreaction and liquidity on the price reversal phenomenon. These factors are considered important by investors to invest. Therefore, this study develops these studies by conducting further research on Islamic stocks listed on ISSI with the research title "Price Reversal: Overreaction & Liquidity in Islamic manufacturing stocks listed on ISSI for the period 2019 - 2021".

RESEARCH METHOD

The research method used in this research is descriptive research method using a quantitative approach. In this study the researchers took secondary data from the companies studied in the research period, namely 2019 - 2021. The sampling method in this study used the Purposive Sampling technique, with the following criteria:

1. Manufacturing companies that have been registered with ISSI for the 2019-2021 period.
2. Issued the latest complete financial reports for the period 2019-2021.
3. Published financial reports for 3 consecutive years during the period 2019-2021.

There are 73 sharia manufacturing companies registered in the Indonesia Sharia Stock Index (ISSI) which will be sampled in this study. The data collection in this research is library technique and documentation technique by tracing historical data from the website:

1. www.idx.co.id
2. www.investing.com
3. www.yahoofinance.com

RESULTS AND DISCUSSIONS

Result

Descriptive Analysis

Price Reversal

Table 1. Price Reversal test

Date: 07/22/22 Time: 17:07
Sample: 2019 2021

	PRICE_REVERSAL
Mean	-0.101365
Median	-0.222214
Maximum	3.818671
Minimum	-1.601163
Std. Dev.	0.638910
Skewness	2.365859
Kurtosis	12.98912
Jarque-Bera	1114.817
Probability	0.000000
Sum	-22.19890
Sum Sq. Dev.	88.98883
Observations	219

Source: Output eViews 12, Data processed

Based on table 1, it can be seen that the Price Reversal variable has a minimum value of -1.601163 and a maximum value of 3.818671 which means that the value of the Price Reversal variable ranges from -1.601163 to 3.818671. The average value of the Price Reversal variable shows a negative value of -0.101365 and the standard deviation of the Price Reversal variable is 0.638910.

Overreaction

Table 2. Overreaction test

Date: 07/22/22 Time: 17:07
Sample: 2019 2021

	OVERREACTION
Mean	0.093218
Median	-0.021659
Maximum	3.959454
Minimum	-0.864325
Std. Dev.	0.582253
Skewness	3.238920
Kurtosis	17.98085
Jarque-Bera	2430.792
Probability	0.000000
Sum	20.41473
Sum Sq. Dev.	73.90600
Observations	219

Source: Output eViews 12, Data processed

Based on table 2, it can be seen that the Overreaction variable has a minimum value of -0.864325 and a maximum value of 3.959454 which means that the Overreaction variable value ranges from -0.864325 to 3.959454. The average value of the Overreaction variable shows a positive value of 0.093218 and the standard deviation of the Overreaction variable is 0.582253.

Liquidity

Table 3. Liquidity test

Date: 07/22/22 Time: 17:08
Sample: 2019 2021

	LIKUIDITAS
Mean	1.27E+08
Median	9367700.
Maximum	1.88E+09
Minimum	3800.000
Std. Dev.	2.98E+08
Skewness	3.414185
Kurtosis	15.07659
Jarque-Bera	1756.294
Probability	0.000000
Sum	2.78E+10
Sum Sq. Dev.	1.93E+19
Observations	219

Source: Output eViews 12, Data processed

Based on the table, it can be seen that the Liquidity variable has a minimum value of 3.800 and a maximum value of 1.88E+09, which means that the value of the Liquidity variable ranges from 3.800 to 1.88E+09. The average value of the Liquidity variable shows a positive value of 1.27E+08 and the standard deviation of the Liquidity variable is 2.98E+08.

Inference Analysis

Table 4. Inference Analysis Test

Dependent Variable: PRICE_REVERSAL
Method: Panel Least Squares
Date: 07/22/22 Time: 03:12
Sample: 2019 2021
Periods included: 3
Cross-sections included: 73
Total panel (balanced) observations: 219

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.228134	0.025559	-8.925804	0.0000
OVERREACTION	0.900860	0.043195	20.85560	0.0000
LIKUIDITAS	3.37E-10	1.26E-10	2.679218	0.0002
Effects Specification				
Cross-section fixed (dummy variables)				
R-Squared	0.847705	Mean dependent var		-0.101365
Adjusted R-squared	0.769443	S.D. dependent var		0.638910
S.E. of regression	0.306781	Akaike info criterion		0.740310
Sum squared resid	14.55253	Schwarz criterion		1.900951
Log likelihood	-6.063921	Hannan-Quinn criter		1.209059
F-statistic	10.83156	Durbin-Watson stat		2.800268
Prob(F-statistic)	0.000000			

1. Simultaneous Significance Test Prob (F-statistic) of 0.00 <0.05 so that the Overreaction and Liquidity variables simultaneously affect Price Reversal.
2. Coefficient of Determination
   The Adjusted R-Squared value of 0.769 (77%) means that the Price Reversal variable can be explained by Overreaction and Liquidity of 77%, while the rest (100%-77% = 23%) is explained by other variables outside the model.
3. Partial Significance Test (Individual)
   a. Prob value. Overreaction is 0.00 < 0.05 so Overreaction has an effect on Price Reversal
   b. Prob value. Liquidity is 0.00 < 0.05 so that liquidity has an effect on Price Reversal

Classic Assumption Test
Normality test

The normality test is only used if the number of observations is less than 30, to find out whether the error term is close to the normal distribution. If the number of observations is more than 30, then there is no need to test for normality because the distribution of the sampling error term is close to normal (Ajija et al, 2011:42). This study uses the number of observations 219 so the normality test can be ignored. This study uses the OLS (Ordinary Least Least) approach, so that the panel regression estimation that uses the OLS approach, namely the fixed effects and common effects models, does not need to test for normality, while the random effects model is required to do a normality test because it does not use the OLS approach but uses the Generalized Least approach. Square (GLS).

Multicollinearity Test

Table 5. Multicolinearity test

Variance Inflation Factors
Date: 07/27/22 Time: 17:30
Sample: 1 219
Included observations: 219

Variable	Coefficient Variable	Uncentered VIF	Centered VIF
C	0.000597	1.185193	NA
OVERREACTION	0.001601	1.100503	1.072877
LIKUIDITAS	6.13E-21	1.268792	1.072877

Multicollinearity test aims to test whether there is a correlation between the independent variables in the regression model. Multicollinearity testing in this study was carried out by looking at the VIF value for each variable. Based on the table, it is known that the VIF value in the Overreaction and Liquidity variables is less than 10 which indicates that there is no multicollinearity problem.

Autocorrelation

Autocorrelation testing on non-time series data, both cross section data and panel data, will only be in vain or meaningless (Basuki and Prawoto, 2017: 297). Thus, the autocorrelation test was not carried out in this study. In other words, in this study it is assumed that for certain independent variables there is no autocorrelation or serial correlation among the disturbance factors.

Heteroscedasticity Test (ARCH)

Table 6. Heteroscedasticity test

Heteroskedasticity Test: ARCH			
F-statistic	1.473710	Prob. F(1,216)	0.2261
Obs*R-squared	1.477277	Prob. Chi-Square(1)	0.2241

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 07/22/22 Time: 03:25
Sample (adjusted): 2 219
Included observations: 218 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.100110	0.019499	5.134033	0.0000
RESID^2(-1)	0.082321	0.067812	1.213965	0.2261
R-squared	0.006776	Mean dependent var		0.109093
Adjusted R-squared	0.002178	S.D. dependent var		0.266662
S.E. of regression	0.266372	Akaike info criterion		0.201285
Sum squared resid	15.32605	Schwarz criterion		0.232335
Log likelihood	-19.94002	Hannan-Quinn criter		0.213826
F-statistic	1.473710	Durbin-Watson stat		1.988917
Prob(F-statistic)	0.226087			

Based on the output results above, it can be seen that the Prob. Chi-Square value is 0.2242 > 0.05, it explains that there is no heteroscedasticity problem.

Model Feasibility Test (F Test)

Table 7. Feasibility test

Dependent Variable: PRICE_REVERSAL
Method: Panel Least Squares

Date: 07/22/22 Time: 03:12
Sample: 2019 2021
Periods included: 3
Cross-sections included: 73
Total panel (balanced) observations: 219

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.228134	0.025559	-8.925804	0.0000
OVERREACTION	0.900860	0.043195	20.85560	0.0000
LIKUIDITAS	3.37E-10	1.26E-10	2.679218	0.0002
Effects Specification				
Cross-section fixed (dummy variables)				
R-Squared	0.847705	Mean dependent var		-0.101365
Adjusted R-squared	0.769443	S.D. dependent var		0.638910
S.E. of regression	0.306781	Akaike info criterion		0.740310
Sum squared resid	14.55253	Schwarz criterion		1.900951
Log likelihood	-6.063921	Hannan-Quinn criter		1.209059
F-statistic	10.83156	Durbin-Watson stat		2.800268
Prob(F-statistic)	0.000000			

The Prob value (F-statistic) in the table above is 0.00 < 0.05, this number indicates that the Overreaction and Liquidity variables have a linear relationship to the Price Reversal variable. So the model is feasible to interpret the effect of Overreaction and Liquidity on Price Reversal.

Hypothesis Test (t Test)

Table 8. Hypothesis test

Dependent Variable: PRICE_REVERSAL
Method: Panel Least Squares
Date: 07/22/22 Time: 03:12
Sample: 2019 2021
Periods included: 3
Cross-sections included: 73
Total panel (balanced) observations: 219

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.228134	0.025559	-8.925804	0.0000
OVERREACTION	0.900860	0.043195	20.85560	0.0000
LIKUIDITAS	3.37E-10	1.26E-10	2.679218	0.0002
Effects Specification				
Cross-section fixed (dummy variables)				
R-Squared	0.847705	Mean dependent var		-0.101365
Adjusted R-squared	0.769443	S.D. dependent var		0.638910
S.E. of regression	0.306781	Akaike info criterion		0.740310
Sum squared resid	14.55253	Schwarz criterion		1.900951
Log likelihood	-6.063921	Hannan-Quinn criter		1.209059
F-statistic	10.83156	Durbin-Watson stat		2.800268
Prob(F-statistic)	0.000000			

Based on the table of fixed effects test results above, the panel data regression model is obtained as follows:
Y = -0.228134 + 0.900860 X1 + 3.37E-10 X2
Where:
Y = Price Reversal
X1 = Overreaction
X2 = Liquidity

a. Overreaction probability is 0.000. This figure is smaller than 5% alpha (t stat probability < significant level = 0.05), meaning Ho is rejected or H1 is accepted. So Overreaction affects Price Reversal. The Overreaction coefficient figure is 0.900860 which means that if Overreaction increases by one unit, Price Reversal will increase by 0.900860 units, and vice versa if Overreaction decreases by one unit, Price Reversal will decrease by 0.900860 units.
b. Liquidity Probability of 0.0082. This number is smaller than 5% alpha (t stat probability < significant level = 0.05), meaning Ho is rejected or H2 is accepted. So Liquidity has an effect on Price Reversal. The Liquidity coefficient figure is 3.37E-10 which means that if Liquidity increases by one unit, Price Reversal will increase by 3.37E-10 units, and vice versa if Liquidity decreases by one unit, Price Reversal will decrease by 3.37E-10 units.

Discussion

Effect of Overreaction on Price Reversal

Based on the results of hypothesis testing conducted, it shows that the overreaction event has a significant effect on the stock price reversal phenomenon during the study period. This means that changes in stock prices that occurred during the study period were caused by an overreaction made by investors in valuing stocks. This research is supported by the results of research conducted by DeBondt and Thaler (1985) which states that a price reversal in the opposite direction indicates that the market has overreacted to information. Such information can encourage investors to overreact, causing a price reversal. In addition, the results of research conducted by Benou and Richie (2003) state that the price reversal phenomenon is caused by an overreaction.

Likewise with research in Indonesia conducted by Iramani and Umayanti, 2002 in their research stating that in the price reversal phenomenon, stock prices can change on a large scale and be followed by changes back in the opposite direction, namely extreme price increases followed by a decrease in price in the next period, and vice versa, an extreme decrease in price will be followed by an increase in price in the next period. This happens because it is triggered by the extreme information received by investors in excess. The occurrence of stock price reversals caused by overreaction events can be seen from the graph of the time series data during the following research period.

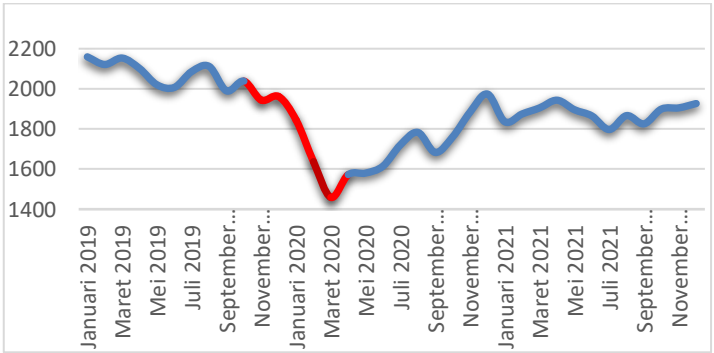

Figure 1. Time Series Data of 2019-2021

Based on the picture above, it can be seen that there has been a significant decline in stock prices from January 2020 to March 2020. The decline in stock prices was caused by the Covid-19 pandemic, which certainly affected all economic sectors so that it experienced a decline, especially the capital market in Indonesia. This triggers investors to shift most of their shares to safer investments such as gold. Although it had plunged to its lowest point in early 2020, ISSI experienced a price reversal and continued to increase in March 2020 due to sharia shares performing positively in the midst of the Covid-19 pandemic. This is reflected in the three sharia indices on the exchange which are moving better than before the pandemic. The three indices are the Indonesian Sharia Index (ISSI), the Jakarta Islamic Index 70 (JII70), and the Jakarta Islamic Index (JII). The Indonesia Stock

Exchange (IDX) noted that since the Covid-19 case in Indonesia was first announced on March 2, 2020 to March 31, 2021, ISSI has strengthened by 13.9%. Meanwhile, JII70 rose 12.3% and JII increased 7.8%. (kontan.co.id, 2021)

Effect of Liquidity on Price Reversal

Based on the results of hypothesis testing, it shows that there is an influence of liquidity on the stock price reversal phenomenon. Stock liquidity shows the smoothness of a stock trade which is reflected in the trading volume in a certain period of time. When investors get positive information about a stock price, it certainly supports the overreaction made by the investor, then the investor will allocate funds to the previous stock to buy new shares. If a stock has a high level of liquidity, it will accelerate the reversal of stock prices. It can be concluded that the more liquid a stock is, the more likely it will be to reverse the stock price. The results of this study are in accordance with research conducted by (Santosa & Hosen, 2011) in their research stating that liquidity has a significant effect on price reversal in both winner and losser stocks.

CONCLUSION

Based on the results of the research that has been carried out, the researchers conclude that there is an effect of overreaction and liquidity on price reversals on Sharia Manufacturing shares listed on the Indonesia Sharia Stock Index (ISSI) during the period 2019 – 2021. This shows that the overreaction phenomenon is a major problem for investors. and company. When investors receive information in excess, it can make investors make excessive transactions that can change the ups and downs of a stock's liquidity, thus encouraging the phenomenon of stock price reversals. Based on the results of this study, it can be seen that there are still limitations and shortcomings, so the researchers suggest,(1) investors should pay more attention to information regarding good or bad news, because the information obtained is not necessarily true. So it is necessary to analyze the effect or impact of the information, (2) for further researchers to pay more attention to the factors that can affect the occurrence of stock price reversals, because there are still other factors that cause stock price reversals that were not tested in this study.

References

Abiprayu, K. B., Rafinda, A., & Wiratama, B. (2022). Market Overreaction and Price Reversal in Indonesian Stock Exchange. Management Analysis Journal, 11(2).

Aharon, D. Y., & Siev, S. (2021). COVID-19, government interventions and emerging capital markets performance. Research in International Business and Finance, 58, 101492.

Ahmed, F. (2021). Assessment of capital market efficiency in COVID-19. European Journal of Business and Management Research, 6(3), 42-46.

Borgards, O., Czudaj, R. L., & Van Hoang, T. H. (2021). Price overreactions in the commodity futures market: An intraday analysis of the Covid-19 pandemic impact. Resources Policy, 71, 101966.

Cox, D. R., & Peterson, D. R. (1994). Stock Return Following Large One-Day Declines: Evidence on Short-Term Reversals and Longer-Term Performance. The Journal of Finance, 255-267.

DeBondt, W. F., & Thaler, R. (1985). Does the Stock Market Overreact? The Journal Of Finance, 798-805.

Fama, E. F. (1970). Efficient Capital Market: A Review of Theory and Empirical Work. The Journal Of Finance, 383-417.

Hojaji, S. N., Yahyazadehfar, M., & Abedin, B. (2022). Machine Learning in Behavioral Finance: A Systematic Literature Review. The Journal of Financial Data Science, 4(3), 129-151.

Idxchannel.com. (2020, 8 24). idxchannel.com. Retrieved from idxchannel.com: https://www.idxchannel.com/market-news/laba-astra-international-turun-44-persen-jadi-rp55-triliun-gara-gara-pandemi

Jogiyanto, H. (2010). Teori Portofolio dan Analisis Investasi. Yogyakarta: BPFE.

kontan.co.id. (2021, 4 9). kontan.co.id. Retrieved from kontan.co.id: https://investasi.kontan.co.id/news/indeks-syariah-melesat-di-tengah-pandemi-covid-19-ini-sebabnya

Kusumawardani, S. (2001). Analisis Reaksi Berlebihan, Efek Bid-Ask, Firm Size, dan Likuiditas dalam Fenomena Price Reversal di Bursa Efek Jakarta. Tesis Universitas Diponegoro.

Liu, C., Wu, Y., & Zhu, D. (2022). Price overreaction to up-limit events and revised momentum strategies in the Chinese stock market. Economic Modelling, 105910.

Magdalena, M., & Choery, M. (2008). Analisis Likuiditas Saham Sebelum dan Sesudah Stock Split Di Indonesia Pada Tahun 2008. STIE Nusa Megarkencana Yogyakarta, 29-39.

Martalena, & Malinda, M. (2011). Pengantar Pasar Modal. Yogyakarta: Andi.

Pompian, M (2012). Behavioral Finance and Wealth Management: How to Build Investment Strategies That Account for Investor Biases. Wiley.

Parveen, S., Satti, Z. W., Subhan, Q. A., & Jamil, S. (2020). Exploring market overreaction, investors' sentiments and investment decisions in an emerging stock market. Borsa Istanbul Review, 20(3), 224-235.

Santosa, P. W., & Hosen, M. N. (2011). Probability of Price Reversal and Intraday Trading Activity for Low Banking Sector at Indonesia Stock Exchange. International Research Journal of Finance and Economics, 31-42.

Shefrin, H. (2000). Beyond Greed and Fear: Understanding Behavioral Finance and the Psychologgy of Investing. Harvard Business School Press.

Suhari, E., Trinugroho, I., Rahardian, R., & Ivada, W. (2011). Psychographic And Investor Behavior In Indonesia. Interdisciplinary Journal of Contemporary Research in Business, 296-302.

Singh, J. E., Babshetti, V., & Shivaprasad, H. N. (2021). Efficient market hypothesis to behavioral finance: A review of rationality to irrationality. Materials Today: Proceedings.

Vasileiou, E. (2021). Behavioral finance and market efficiency in the time of the COVID-19 pandemic: does fear drive the market?. International Review of Applied Economics, 35(2), 224-241.

Yull, E., & Kirmizi. (2012). Analisis Overreaction Hypothesis dan Pengaruh Ukuran Perusahaan, Bid-Ask Spread, dan Likuiditas Saham terhadap Fenomena Price Reversal. Pekbis Jurnal, 1-16.