

## Government Officially Revokes PPKM Policy: Stock Market Investment Decisions

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### ABSTRACT

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The purpose of this study is to examine the effect of behavioural biases from investors on investment decision before and after government officially revokes PPKM in Indonesia. This study is quantitative research which relies on numerical data. Data used in this research are secondary data for trading volume from November 2022 until February 2023 of companies listed on LQ45. This study also examines the difference in trading volume before and after revoking of PPKM, hence this's event study. The results showed that investors' behaviours have significant effect to trading volume before and after government officially revokes PPKM. On average, total trading volume is higher after the announcement from the government, 92,174,703 shares before the announcement and 110,020,882 shares after the announcement. Reflecting on this amount, since many community activities were hampered when the PPKM policy was implemented, after the termination of the policy, investors become more optimistic about investing in the capital market. This research generates valuable knowledge into the role of behaviour biases of investors in Indonesia in doing the investment. Trading activities in stock exchanges remain an anomaly. Further studies can be conducted by analyzing the other measurements of behavioral biases in the stock market.



## A. INTRODUCTION

Covid-19 virus that appeared at the end of 2019 has a humongous impact on economy throughout the world, especially in Indonesia. This unexpected virus has negative impact on global stock market performance (Al-Awadhi et al., 2020; He et al., 2020; Zhang et al., 2020). Veny, Angelene and Junita (2022) analyzed the fundamental factors of companies before and after Covid-19. They found different reactions of fundamental factors to stock price in Indonesia before and after Covid-19. Ashraf (2020) found stock markets have negative responds to Covid-19 cases. Covid-19 outbreak has negative effect to the stock market in Canada and US (Xu, 2021). A previous study by Robin (2021) found that the Covid-19 depresses the returns of stock market in Indonesia.

In order to overcome this situation, government need to make the best regulations in a country. Government need to choose whether to save the economy or the people's lives first. When implementing a lockdown, the impact is unemployment that will lead to the downturn of economy growth. Unemployment in the country makes investors unsure about the expected return when doing investment during the pandemic. The higher the number of infected cases and deaths will put pressure on various aspects like health and economic growth. Even though the country's economy is in crisis, the government must act as quickly as possible to halt the spread.

Covid-19 pandemic in Indonesia affected the capital market in terms of stock price and trading volume (Adriatama and Rahadi, 2021; Ali, Anwar and Haseeb, 2021; Hardiyanti, Septiyanti and Dharma, 2021; Hersugondo, Karim and Rouf 2021; Lina, Hesniati and Robin, 2022 and Thomas and Tambunan, 2022; and Wijaya, et.al., 2022).

In efficient market, investment with high risk will need to offer greater returns to overcome loss. Investors can consider company profitability as a result of management efforts within investment decisions that provide high returns (Inggrida, Setiawan and Veny, 2023). How much return must be obtained with certain risk is a challenge for investors in facing the highly competitive stock market. The volatility of the stock market occurs from various factors (Bekaert & Harvey, 1997). Profitable investment means that investment should increase the owner's equity value (Arditti, 1967). Investors must choose investment which has the greater return of the investment more than the cost.

Fundamental analysis can be used by investors to estimate company performance, as well as to predict stock price movements (Veny and Gunawan, 2022). Stock price is not only determined by fundamental factors, but also from behaviour of the investors. Investor sentiment turns out has an important role in determining market price. Investors will be more optimistic when there is a bull market with low risk. However, in bearish market, investors are relatively pessimistic. Those investors tend to hold their money to do the investment until recovery takes place. This behaviour causes over reaction behaviour from investors in short-term (Liu et al., 2020). Information can influence investment decision and this explains investors' behaviour and a market that deviates from Efficient Market Hypothesis (Kim and Nofsinger, 2007; Nofsinger, 2017). Rashid, Tariq and Rehman (2022) investigated further about stock market decisions, they found the role of investor behaviour with stock market decisions.

IHSG fluctuated from November 2022 until February 2023 as we can see from table 1. In January 2023, IHSG experienced a significant decline. At that time, government had announced the revoking of PPKM since 30 December 2022. Based on cities and districts, PPKM targets limited restrictions on community activities. PPKM consists of certain policies,



such as limiting Work from Offices (WFO) by implementing Work from Home (WFH). All learning and teaching activities are carried out online. Dining at restaurant can only be as much as 25% and operating hours for shopping centers until 07.00 p.m.

**Table 1. IHSG Period November 2022-February 2023**

Date	Open	High	Low	Close
15-Nov-22	7.019,39	7.048,39	6.999,24	7.035,50
16-Nov-22	7.035,50	7.047,00	6.955,53	7.014,38
17-Nov-22	7.014,38	7.051,27	6.965,76	7.044,99
18-Nov-22	7.045,03	7.094,10	7.027,75	7.082,18
21-Nov-22	7.082,18	7.107,32	7.050,44	7.063,25
22-Nov-22	7.063,25	7.108,83	7.030,59	7.030,59
23-Nov-22	7.030,63	7.089,69	7.026,39	7.054,12
24-Nov-22	7.054,16	7.104,89	7.054,16	7.080,52
25-Nov-22	7.080,55	7.086,56	7.013,22	7.053,15
28-Nov-22	7.053,11	7.083,38	7.011,45	7.017,36
29-Nov-22	7.017,32	7.036,54	6.990,90	7.012,07
30-Nov-22	7.012,11	7.081,31	6.993,70	7.081,31
01-Dec-22	7.081,19	7.090,28	7.018,27	7.020,80
02-Dec-22	7.020,80	7.021,81	6.967,95	7.019,64
05-Dec-22	7.019,64	7.053,90	6.987,33	6.987,33
06-Dec-22	6.987,37	6.987,37	6.862,56	6.892,57
07-Dec-22	6.892,57	6.892,66	6.799,30	6.818,75
08-Dec-22	6.818,79	6.821,05	6.683,63	6.804,23
09-Dec-22	6.804,23	6.804,23	6.695,38	6.715,12
12-Dec-22	6.715,12	6.734,45	6.641,81	6.734,45
13-Dec-22	6.734,49	6.826,12	6.714,87	6.810,32
14-Dec-22	6.810,36	6.854,10	6.774,13	6.801,75
15-Dec-22	6.801,79	6.801,84	6.740,96	6.751,86
16-Dec-22	6.751,86	6.812,19	6.693,77	6.812,19
19-Dec-22	6.812,15	6.827,81	6.754,09	6.779,70
20-Dec-22	6.779,70	6.792,20	6.715,04	6.768,32
21-Dec-22	6.768,32	6.820,66	6.763,70	6.820,66
22-Dec-22	6.820,70	6.844,12	6.800,62	6.824,43
23-Dec-22	6.824,39	6.824,39	6.784,59	6.800,67
26-Dec-22	6.800,71	6.858,15	6.796,17	6.835,81
27-Dec-22	6.835,85	6.933,89	6.835,66	6.923,03
28-Dec-22	6.923,07	6.953,04	6.828,14	6.850,52
29-Dec-22	6.850,52	6.879,58	6.786,98	6.860,08
30-Dec-22	6.860,12	6.888,74	6.838,59	6.850,62
02-Jan-23	6.850,74	6.856,89	6.823,48	6.850,98
03-Jan-23	6.850,98	6.908,00	6.838,57	6.888,76
04-Jan-23	6.888,80	6.900,60	6.813,24	6.813,24



05-Jan-23	6.813,28	6.813,42	6.621,99	6.653,84
06-Jan-23	6.653,76	6.708,64	6.598,65	6.684,56
09-Jan-23	6.684,56	6.726,97	6.638,65	6.688,27
10-Jan-23	6.688,27	6.690,23	6.570,24	6.622,50
11-Jan-23	6.622,54	6.622,79	6.557,92	6.584,45
12-Jan-23	6.584,49	6.662,23	6.574,09	6.629,93
13-Jan-23	6.629,93	6.658,48	6.600,59	6.641,83
16-Jan-23	6.641,83	6.688,06	6.627,70	6.688,06
17-Jan-23	6.688,06	6.801,87	6.688,06	6.767,34
18-Jan-23	6.767,18	6.790,16	6.721,46	6.765,79
19-Jan-23	6.765,75	6.820,98	6.754,55	6.819,91
20-Jan-23	6.819,91	6.874,93	6.819,53	6.874,93
24-Jan-23	6.874,93	6.906,79	6.841,01	6.860,85
25-Jan-23	6.860,85	6.871,36	6.821,28	6.829,93
26-Jan-23	6.829,97	6.874,87	6.815,79	6.864,82
27-Jan-23	6.864,82	6.932,71	6.864,82	6.898,98
30-Jan-23	6.899,02	6.925,47	6.834,08	6.872,48
31-Jan-23	6.872,52	6.880,96	6.827,24	6.839,34
01-Feb-23	6.838,92	6.893,18	6.838,92	6.862,26
02-Feb-23	6.862,26	6.896,73	6.855,37	6.890,57
03-Feb-23	6.890,71	6.951,97	6.890,71	6.911,73
06-Feb-23	6.911,73	6.924,88	6.835,76	6.873,79
07-Feb-23	6.873,79	6.946,23	6.873,79	6.935,30
08-Feb-23	6.935,30	6.961,92	6.912,11	6.940,12
09-Feb-23	6.940,12	6.961,15	6.896,04	6.897,37
10-Feb-23	6.895,24	6.895,24	6.803,42	6.880,33
13-Feb-23	6.880,33	6.915,14	6.871,88	6.900,14
14-Feb-23	6.900,14	6.941,85	6.900,14	6.941,85
15-Feb-23	6.941,85	6.946,03	6.872,87	6.914,54

Source: yahoofinance.com

Trading volume fluctuations can be affected by several variables such as the large number of stocks traded, informations, events or news that occur on the stock exchange, the circumstances and current issues of company and country. As we can see from table 2, trading volume also fluctuated from November 2022 until February 2023 as we can see from table 2.

**Table 2. Trading Volume Period November 2022-February 2023**

Date	Trading Volume
15-Nov-22	167.825.000
16-Nov-22	165.129.900
17-Nov-22	156.588.900
18-Nov-22	167.164.400
21-Nov-22	162.801.100



22-Nov-22	177.602.200
23-Nov-22	157.476.700
24-Nov-22	159.926.700
25-Nov-22	158.716.200
28-Nov-22	187.211.500
29-Nov-22	164.098.100
30-Nov-22	273.493.300
01-Dec-22	167.994.300
02-Dec-22	139.459.800
05-Dec-22	165.306.000
06-Dec-22	149.697.900
07-Dec-22	158.724.300
08-Dec-22	162.316.700
09-Dec-22	127.123.900
12-Dec-22	134.471.100
13-Dec-22	396.136.700
14-Dec-22	215.430.000
15-Dec-22	145.093.400
16-Dec-22	156.126.900
19-Dec-22	127.896.600
20-Dec-22	151.817.000
21-Dec-22	139.079.800
22-Dec-22	129.012.900
23-Dec-22	120.430.300
26-Dec-22	117.543.200
27-Dec-22	121.669.200
28-Dec-22	120.571.100
29-Dec-22	141.016.100
30-Dec-22	129.302.000
02-Jan-23	109.645.000
03-Jan-23	156.894.900
04-Jan-23	142.541.400
05-Jan-23	180.589.300
06-Jan-23	109.855.600
09-Jan-23	135.949.700
10-Jan-23	144.817.300
11-Jan-23	124.903.900
12-Jan-23	148.901.900
13-Jan-23	165.594.900
16-Jan-23	154.893.500
17-Jan-23	217.634.400
18-Jan-23	194.959.200



19-Jan-23	154.234.600
20-Jan-23	173.846.000
24-Jan-23	196.805.400
25-Jan-23	187.905.300
26-Jan-23	171.067.600
27-Jan-23	149.187.500
30-Jan-23	134.698.100
31-Jan-23	151.785.000
01-Feb-23	145.899.200
02-Feb-23	189.189.500
03-Feb-23	202.858.400
06-Feb-23	143.480.000
07-Feb-23	173.101.600
08-Feb-23	172.668.200
09-Feb-23	176.681.300
10-Feb-23	140.803.700
13-Feb-23	213.914.100
14-Feb-23	162.808.100
15-Feb-23	148.477.900

Source: yahoofinance.com

The differential impact of the revoking of PPKM in December 2022 on financial conditions needs to be examined quantitatively. Public company performance is the basis to make investment decisions. Therefore, this study is crucial to deliver valuable informations to investors after government officialy revoking PPKM policy. This is the first research to analyze the effect of revoking of PPKM in December 2022 on trading volume for LQ45 in Indonesia. Furthermore, this study intends to research about the role of behavioral errors to stock market decisions before and after revoking of PPKM. This paper contributes to knowledge about the reaction of the stock market to academics, governments and investors after revoking of PPKM.

## B. LITERATURE REVIEW

### Signalling Theory

Signalling theory was introduced by Ross (1977). This theory says that two parties are involved in the signalling process. One party is internal entity (management) that sends signal while other party is external party (investor) that receives signal. By providing this signal, management tries to deliver valuable informations that can be used by the investor. Later, the investor can adjust their investment decision to their understanding about the signal.

Signal theory and firm value are interrelated concepts. Signal hypothesis clears up how to send mistake cautions to investors. Symmetrical information is a balanced understanding of the company's fundamental by investors and managers. On the other hand, asymmetric information refers to managers' more accurate data than the traders' (Brigham & Houston, 2011).



### **Impact of COVID-19 to Stock Markets**

Anh and Gan (2020) analyzed the effect of Covid-19 cases on returns during lockdown period in Vietnam. Stock performance in several business sectors in Vietnam has significant difference during lock down. Financial sector experienced sizable losses during Covid-19 outbreak. Waryati, et.al. (2020) analyzed the differences of stock returns and trading volume activity before and after Covid-19 announcement for companies listed in LQ-45 in Indonesia. There are significant differences for average stock abnormal return and trading volume after Covid-19 announcement, both for short and long term periods.

Alzyadat and Asfoura (2021) investigated the effect of Covid-19 on stock market in Saudi Arabia. Stock return has negative effect to Covid-19 cases. During the early days of Covid-19, negative market reaction is strong. Furthermore, Mangindaan, Manossoh and Walangitan (2022) analyzed the impact of Covid-19 on share prices in Indonesia. This research finds the adverse impact of Covid-19 pandemic on stock prices, particularly in 2020.

### **Impact of PPKM Announcement to Stock Markets in Indonesia**

Public Activity Restriction (PPKM) is a policy from government to reduce the spread of during Covid-19 virus. There're several studies that discuss about the implementation of this policy to stock market. Adriatama and Rahadi (2021) examined several index in Indonesia during Covid-19 pandemic. Different sectors react differently to the implementation and announcement of policies.

Afdhal, Mayapada and Septian (2022) analyzed the effect of government policies due to Covid-19 pandemic on stock return for restaurant, hotel, and tourism sectors in Indonesia. This study tested before and after implementing government policies related to lockdowns. Investors for restaurant, hotel, and tourism sectors are only reactive for the initial period of the spread of Covid-19 in Indonesia. Furthermore, Sastra (2022) examined the differences in average abnormal returns and trading volume before and during PSBB and PPKM. Based on the results, trading volume has significant differences before and during PPKM.

Tambunan and Ugut (2022) examined 51 companies from property sector for stock reaction due to Covid-19 pandemic. Announcement of PSBB in Jakarta causing a bad response by the market, especially for stock returns. Company size, cash/TA, leverage, BVPS, and market to book value have significant effect to cumulative abnormal return. Size and abnormal return has positive relationship.

However, there's different result that find no difference for stock return after announcement of PPKM. Kufanda and Intriani (2022) examined the abnormal return for 30 companies in LQ45 on the day before and the day after the PPKM policy. There is no significant difference for abnormal return and trading volume activity before and after the implementation of PPKM.

### **Market Investment Decision**

Market investment decision which is measured by trading volume becomes the dependent variable in this research (Rashid, Tariq and Rehman, 2022). Stock trading volume is a comparison between transaction volume and outstanding shares (Priyati, 2019). Trading volume can be used to measure market reactions to information. Stock trading can be reflected by trading volume. The increasing of trading volume shows that investors can absorb information as good information (good news). Conversely, if the trading volume decreases, the information is considered as insufficient information (bad news).



### C. RESEARCH METHODOLOGY

This study is quantitative research which relies on numerical data. Data used in this research are secondary data for trading volume from November 2022 until February 2023 of companies listed on LQ45. This study examines the difference in trading volume before and after revoking of PPKM, hence this's event study. Furthermore, this study examines the effect of behavioral errors to market investment decision as measured by trading volume. Behavioral biases in this study is measured by using confidence and rational behavior (Rashid, Tariq and Rehman, 2022).

#### Confidence

Previous day return is used to measure investors' confidence to trade. If the return on previous day is non negative, then investor will do the trading  $R_{t-1} \geq 0 \rightarrow$  there will be trading), while in case the return on the previous day is negative, the investor will not do the trading  $R_{t-1} < 0 \rightarrow$  there will be no trading).

#### Rational behaviour

Asset prices reflect available informations in efficient market. Information that has an effect to prices also tends to affect expectations of the investors. It infers that investors sometimes make related errors, hence,  $E(R) = R_{t-1} + \epsilon_{t-1}$ .

$E(R)$  is expected return,  $R_{t-1}$  is previous day returns and  $\epsilon_{t-1}$  is error. Expected return on investment is equal to previous day return of that investment plus error. Error represents the unknown information.

#### Investment decision

The dependent variable in this study is investment decision making. Trading volume is used as the proxy of this variable (Rashid, Tariq and Rehman, 2022).

#### Regression model

In the regression model, trading volume is dependent variable. Furthermore, confidence and rational behaviours are independent variables. The regression equation as

$$\text{TradingVolume} = \beta_0 + \beta_1 \text{Confidence} + \epsilon \quad \dots (1)$$

$$\text{TradingVolume} = \beta_0 + \beta_1 \text{Rational} + \epsilon \quad \dots (2)$$

This is quantitative research and the hypothesis testing will be measured using statistics through SPSS version 26. Data analysis method in this study as follows:

1. Using independent sample t-test analysis to analyze the differences in trading volume for companies listed in LQ45 before and after government revokes PPKM in December 2022 in Indonesia.
2. Using regression analysis to do the hypothesis testing, analyze the effect of behavioral errors to trading volume for companies listed in LQ45 before and after government revokes PPKM in December 2022 in Indonesia.



#### D. RESULTS AND DISCUSSION

Separate results for each regression model are calculated and interpreted. According to table 1, the test results show that p-value is smaller than  $\alpha$ , it can be concluded that there is a significant difference in Trading Volume obtained by investors before and after government officially revokes PPKM for LQ45 stocks. Investors have different investment tendencies as a result of announcements distributed by the government. On average, total trading volume is higher after the announcement from the government, 92,174,703 shares before the announcement and 110,020,882 shares after the announcement. Reflecting on this amount, since many community activities were hampered when the PPKM policy was implemented, after the termination of the policy, investors become more optimistic about investing in the capital market.

**Table 1.**  
**Independent Sample t-test before and after Government Officially Revokes PPKM**

		F	Sig	t	df	Sig (2-tailed)
<b>Trading Volume</b>	Equal variances assumed	3.500	.061	-3.087	2913	.002
	Equal variances not assumed			-3.095	2912.602	.002

These results are similar with the findings of several studies which concerned about the announcement of public event. Traders would get optimal portfolios before public announcements (Kim and Verrecchia, 1991). New public announcements have significant effect to trader's strategy in trading. This represents that investor behaviour has positive effect on trading volume. Similar with Sastra, Syaipudin and Andi (2022) and Thomas and Tambunan (2022), they found significant differences in trading volumes before and during PPKM. Sectors such as consumer goods and infrastructure gained profit while property and mining suffered a loss (Adriatama and Rahadi, 2021). There're many other studies that already proven the existence of behavioral biases on investment decision (Tjondro, et.al., 2007; Adi and Hidayat, 2009 and Lin, 2011).

Based on table 2, the results showed that confidence behaviour has significant effect to trading volume before government officially revokes PPKM for LQ45 stocks. If the return on previous day is non negative, then the investor will do the trading, while in case the return on the previous day is negative, the investor will not do the trading. Before announcement, investors prefer to transact on trading because of the amount of past return is bigger than 0,  $R_{t-1} \geq 0$  means there will be trading (Rashid, Tariq and Rehman, 2022). An experimental study by Trinugroho (2011) found trading activity tend to decrease in the post bad news period among low overconfidence investors. Investment returns of high overconfidence investors is significantly lower than the other investors.

**Table 2.**  
**Regression Results for Confidence Behaviour before Government officially Revokes PPKM**

	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
<b>Constant</b>	6.839	.074		92.081	.000
<b>Confidence</b>	.115	.038	.078	3.051	.002

Dependent Variable: Trading Volume

The next regression is to test between the effect of rational behaviour to investment decision as measured by trading volume before government officially revokes PPKM. Investors are assumed to be rational for optimal decisions in the modern financial theory. Based on table 3, the results showed that rational behaviour has significant effect to trading volume before government officially revokes PPKM for LQ45 stocks. Rational investors only trade when they achieve their expected utility. A rational investor would make an objective assessment and then decide to buy, hold, or sell the shares (Pompian, 2006). Human beings take risks and make decisions on the basis of their experience, and intuition, instead of gathering relevant information which would make better decisions (Mushinada, 2020). Shukla (2020) found that investors' decisions are affected by their information, historical performance, past experiences and expectations. Thus, individual investors tend to demonstrate behavioral biases while trading; therefore, they make trading mistakes.

**Table 3.**  
**Regression Results for Rational Behaviour before Government officially Revokes PPKM**

	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
<b>Constant</b>	7.091	.054		131.978	.000
<b>Rational</b>	.055	.028	.051	1.976	.048

Dependent Variable: Trading Volume

The next regression is to test between the effect of confidence behaviour to investment decision as measured by trading volume after government officially revokes PPKM. Based on table 4, the results showed that confidence behaviour has significant effect to trading volume after government officially revokes PPKM for LQ45 stocks. This shows investors are still behaving confidence although they experienced different events, before and after news announcement. Similar with the previous result for confidence behaviour, after the announcement, investors prefer to transact on trading because of the amount of past return is bigger than 0,  $R_{t-1} \geq 0$  means there will be trading (Rashid, Tariq and Rehman, 2022).

**Table 4.**  
**Regression Results for Confidence Behaviour after Government officially Revokes PPKM**

	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	



<b>Constant</b>	6.781	.046		148.959	.000
<b>Confidence</b>	.102	.013	.204	8.064	.000

Dependent Variable: Trading Volume

The next regression is to test between the effect of rational behaviour to investment decision as measured by trading volume after government officially revokes PPKM. Based on table 5, the results showed that rational behaviour has significant effect to trading volume after government officially revokes PPKM for LQ45 stocks, similar with the previous result. This shows investors are still behaving rationally although they experienced different events, before and after news announcement.

**Table 5.**  
**Regression Results for Rational Behaviour after Government officially Revokes PPKM**

	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
<b>Constant</b>	6.458	.088		73.681	.000
<b>Rational</b>	.117	.013	.224	8.967	.000

Dependent Variable: Trading Volume

According to behavioural finance theory, information can affect investment decisions, but information affects emotions and leads to cognitive biases. Behavioural finance explains the behaviour of investors and markets that deviate from the Efficient Market Hypothesis (Kim and Nofsinger, 2007). Human beings have limited capacity to process information instead of utilising complete information for decision making as assumed in traditional finance. These irrational decisions are mainly because of using the emotions and feelings in doing the investment decision (Tversky and Kahneman, 1992).

Signaling theory is one of the pillar theories in understanding the investment decision. Information on a company's performance is not available to all parties in a market. Signaling theory is useful for describing behavior when two parties like individuals or organizations have access to different informations. According to Signaling theory is a theory that describes the signal in which the owner of the information tries to provide pertinent pieces of information that the recipient can use (Spence, 1973). Hence, the receiving parties will modify its behavior in accordance with the new informations. This research provides valuable insights into the role of this theory in making investment decision.

Investors in Indonesia behave rationally and confidently in responding to every announcements on the capital market. However, Rashid, Tariq, and Rehman (2022) found that stock trading has suffered from pessimistic investors. They found a positive sign of confidence and negative sign of optimism with the trading volume. They found a positive role of confidence and rational expectations in affecting the daily trading volume. The next results show a negative sign of both optimism and rational expectation with the trading volume. Furthermore, the next model shows a negative sign of confidence combined with pessimism while testing their relationship with the trading volume. Finally, they found that optimism has negative effect to trading volume, and on the other hand, pessimism has a positive impact to trading volume.

There're several researchers that have proven that there is a behavioral factor in conducting investment activities. Kasoga (2021) found that financial literacy mediates insignificantly the effects of behavioral biases on investment decisions. Financial literacy has no effect on investment decisions. Risk tolerance is confirmed as a positive mediator of



overconfidence, availability, anchoring and representativeness heuristics in investment decisions. This study shows that overconfidence exerts a stronger influence on investment decisions, followed by availability, representativeness, risk tolerance, anchoring and financial literacy. This study can help individual investors to evaluate their behavior toward investment making decision.

## E. CONCLUSION

This study has examined the effect of behavioural biases on investment decision in the Indonesian Stock Exchange before and after government officially revokes PPKM. This study uses secondary data for measuring behavioural biases and investment decision based on trading volume. The results showed that investors' behaviours have significant effect to trading volume before and after government officially revokes PPKM for LQ45 stocks. The method and empirical testing of behavioural biases and their relationship with investment decision used in this research seem to be a promising way to better understand the role of psychology in deriving financial decisions for academics and policymakers. Investors in Indonesia behave rationally and confidently in responding to every announcements on the capital market.

There are several recommendations of this study for investors and future studies. This research provides valuable insights into the role of behaviour of Indonesian investors in doing investment. It is worth mentioning that trading activities in stock exchanges mostly remain an anomaly. Further research can be made by using the other measurements of behavioral biases in the stock market.

This research has a number of limitations. The first is that the samples were taken only limited to the most liquid stocks in Indonesia (LQ45), so that the conclusions are still not specific. Behavioral biases in this study are only limited to rational and confidence behaviors. For the investment decision is determined by trading volume where there are many other measurements that can measure investment decision more specific. Research with a longer period of time by considering other public announcements can be considered to learn more about investor behavior. This study does not use the sector classification. A classification by firm sector can give more accurate comparative findings. By looking at the results among all sectors, it can provide clearer knowledge because all sectors can have different reactions and strategies in doing the operational activities.

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