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The Impact Of Announcements Of Mergers And Acquisitions (M&A) On Stock Returns

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ABSTRACT

One of the corporate actions carried out by companies is mergers and acquisitions (M&A). This research aims to examine the impact of merger and acquisition (M&A) announcements on stock returns of banking companies listed on LQ 45 for the 2011-2021 period. This research uses the event study method, with 3 banking companies from 8 merger and acquisition (M&A) events, with an event window of 91 days, namely 45 days pre-announcement, 1 day of announcement and 45 days post-announcement. The results of this research show that the market responded positively to 8 merger and acquisition (M&A) announcement events. The benefit of this research is for policy makers to stimulate stock prices with the help of various announcements from their corporate action strategies. Investors will be helped in understanding stock market mechanisms in making wise investment decisions before reacting to corporate actions. Meanwhile, policy makers are interested in influencing stock prices and investors are interested in the composition of risk-return parameters in their portfolios. This research will act as an important investment tool for both.

1. Introduction

The literature on mergers and acquisitions is extensive. Mergers and Acquisitions are one of the most important corporate activities that significantly influence various different stakeholder groups (Kastanakis et al., 2019, Thanos & Papadakis, 2012a). Strategists face a significant dilemma when considering whether or not to engage in Mergers and Acquisitions (M&A) deals. They recognize that M&A is a key, enduring strategic mechanism for rejuvenating and realigning organizations as the environmental context changes. As a result, mergers and acquisitions have become a topic of great interest to academics in terms of theoretical and empirical investigation over the last four decades. (Yaghoubi et al., 2016). Song & Walkling (2000), Campa & Hernando (2006), Diaw (2011), Chen et al. (2020) find evidence of a positive impact of merger and acquisition announcements on target companies and a negative or zero impact on companies making offers.

That a company or organization needs financial resources to expand company operations or growth, because mergers and acquisitions (M&A) refer to a form of financial deal. Mergers and acquisitions (M&A) carried out by companies are expected to increase competitiveness between companies and gain a competitive advantage over other companies in the same field by gaining

existing market share so that they become larger and have more resource power obtained from the merger. companies to serve expanded markets (Vaulia et al., 2021). The motivation for companies to undertake mergers and acquisitions (M&A) is to create synergies, reduce costs, increase income, reduce capital requirements, obtain lower taxes, and avoid mistakes (Ross et al., 2016). Synergy and increasing bank efficiency are the main attractions for adopting merger and acquisition (M&A) strategies by banks (Mall & Gupta, 2019). A study shows that less than 25 percent of mergers and acquisitions (M&A) are able to meet financial objectives (Lewis & McKone, 2016, Fitriningrum et al., 2020).

Mall & Gupta (2019), Rahman et al. (2018) explained that event study is a method for testing the results of market reactions when a company announces a merger and acquisition (M&A). The event study method can also be used to test the information content of an event. Shah & Arora (2014) examine the effect of merger and acquisition announcements in Asia-Pacific markets and find insignificant abnormal returns. Adnan & Hossain (2016) found a downward trend in the post-announcement period by examining a sample of 50 bidders and targeting US companies. Sachdeva et al. (2015), found negative abnormal returns for post-announcement dates. Diaw (2011) analyzes the effect of announcements on stock returns of European banks from 1997 to 2008 and finds that stock returns of target companies have a positive and insignificant impact on companies that make offers. Chen et al. (2020), also find that while target companies experience positive abnormal returns, acquirer companies experience negative abnormal returns. Pandey & Kumari (2020b) find significant abnormal returns around merger announcements in India and the United States, with Indian markets being more sensitive to such information. Most studies have found positive impacts on targets and negative impacts on bidders.

Rahman et al. (2018), the event date of each event is taken from the share price of the acquiring company. Therefore, the timeline of the event study method is very important to calculate an accurate initial stock price response. Kalsie & Arora (2018), analyzed stock movements 10 days before the M&A announcement date and 10 days after the M&A announcement date. Overall, this research illustrates that all merging entities fail to enjoy the synergy benefits of consolidation announcements. Mall & Gupta (2019), uses the event study method with a 21 day time window where -10 days before the announcement, 0 days at the time of the announcement and +10 days after the announcement. The findings suggest that consolidation in the Indian banking sector to positive average abnormal returns with wealth creation for shareholders of acquiring banks. The results show that mergers and acquisitions in the banking sector cause a spike in volatility that curves around the announcement date, which implies that the disclosure of restructuring events in the banking sector affects the variability of returns. Vijayavargiya (2020), researched four large banks that merged in 2019. The research method used was event study on the window of day 11, day 21 and day 61, namely -5 to +5 days of stock returns, -10 to +10 days stock returns and -30 to +30 days stock returns respectively. Shareholder returns of acquiring banks and abnormal returns due to announcements of mergers and acquisitions have been examined. The results of this research are that announcements of mergers and acquisitions in the banking sector in India cause price downgrades for acquiring banks although the pattern is not consistent.

Several studies show differences in the results of market reactions and event dates for merger and acquisition (M&A) announcements. Apart from that, this research provides new empirical evidence, by contributing to covering the gap in differences in previous research results while providing a different perspective on research objects in Indonesia. Furthermore, from a practical side, this research can provide useful information for investors in Indonesia regarding corporate action. So that is the aim of this researchwhat are the results of stock returns seen from abnormal returns and cumulative abnormal returns before and after the announcement of mergers and acquisitions (M&A).

2. Method

Vijayavargiya, (2020) explains that the use of event study methodology shows that all types of new information reflect stock prices in a highly efficient market (Mall and Gupta, 2019). Event dates for announcements of mergers and acquisitions (M&A) that have been approved by the OJK and data taken from www.kppu.go.id which has been officially published. Event dates are very important to measure the impact of merger and acquisition (M&A) transactions on bank

performance (Rahman et al., 2018). This research is to examine the impact of merger and acquisition (M&A) announcements before and after the announcements made by banking companies on the LQ 45 index between 2011-2021, as many as 3 companies with 8 seven merger and acquisition (M&A) events. Upadhyay and Kurmi (2020) explain that the event window is the study period in which abnormal returns and cumulative abnormal returns will be calculated. If abnormal returns have occurred before the day of the event, then it is possible that information about the event has been leaked to the market. In this research we will take an event window of 91 days, namely 45 days before, 1 day of announcement and 45 days after the event announcement (Mall and Gupta, 2019). This can be seen in tables 1, 2 and 3 below:

Table 1. Research Sample Criteria

No	Criteria	Number of Companies
1.	Banking company registered in LQ 45.	9
2.	Banking companies consistently listed in LQ 45 for the 2011-2021 period.	(4)
3.	Banking companies that carried out mergers and acquisitions (M&A) between 2011-2021.	(2)
4.	Banking companies that do not have research data.	0
	Total sample of banking companies that meet the criteria.	3

Based on Table 1, the total number of banking companies that meet the criteria is 3 (three) banking companies from 2011 to 2021. The following are the names of banking companies that will be used as samples in this research:

Table 2. Research Sample Criteria

No	**Issuer Code**	**LQ 45 Company**
1	BBCA	Bank Central Asia Tbk
2	BMRI	Bank Mandiri (Persero) Tbk.
3	BBRI	Bank Rakyat Indonesia (Persero) Tbk.

Table 3. Data on Mergers and Acquisitions (M&A) between 2011-2021

INCIDENT	M&A date	Companies Undertaking M&A	Companies undergoing M&A
1	March 14, 2011	PT Bank Rakyat Indonesia (Persero), Tbk	PT Bank Agroniaga, Tbk
2	February 24, 2014	PT Bank Central Asia, Tbk	PT Central Sentosa Finance
3	03 June 2014	PT Bank Mandiri (Persero), Tbk	PT Asuransi Jiwa Inhealth Indonesia
4	January 23, 2019	PT Bank Rakyat Indonesia (Persero), Tbk	PT BRI Ventura Investama (formerly PT Sarana Nusa Tenggara)
	January 23, 2019	PT Bank Rakyat Indonesia (Persero), Tbk	PT Danareksa Securities
	January 23, 2019	PT Bank Rakyat Indonesia (Persero), Tbk	PT Danareksa Investment Management
5	October 24, 2019	PT Bank Rakyat Indonesia (Persero), Tbk	PT Asuransi Beringin Sejahtera
6	December 12, 2019	PT Bank Central Asia, Tbk	PT Bank Royal Indonesia
7	06 November 2020	PT Bank Central Asia, Tbk	PT Bank Interim Indonesia
8	September 13, 2021	PT Bank Rakyat Indonesia (Persero), Tbk	PT Pegadaian
	September 13, 2021	PT Bank Rakyat Indonesia (Persero), Tbk	PT National Capital Madani

[a.] Source: Processed data, 2022

Measurement

Expected Stock Return (CAPM)

$R_{i,t} = R_f + \beta_i (R_m + R_f)$

Where :

$R_{i,t}$ = realized returnith security in the t-th estimation period.
R_f = risk free rate returns.
B_i = Beta of the i-th company in the t-th period.
R_m = market return indexin the t-th estimation period it is calculated using the IHSG with the formula R_m = (IHSGt - IHSGIt-1)/IHSGIt-1

Actual Stock Return

$$Total\ Return = \frac{Pt-(Pt-1)}{(Pt-1)}$$

Where:

Total*R*eturn = Company share returns i

Pt = Company share price in period t

Pt_{-1} = Price company shares the day before period t

Abnormal Stock Returns

$$RTNi,t = Ri,t - E(Ri,t)$$

Where:

$RTN_{i,t}$ =*Abnormal returns*i-th security in the t-th event period.

$R_{i,t}$ = *Actual returns*that occurred for the i-th security in the periodtth event.

E ($R_{i,t}$) = Expected return of the i-th security for the t-th event period.

Cumulative Abnormal Return

$$ARTN(t1,tp) = \sum_{t=t1}^{tp} RTNi,t$$

Where:

ARTN(t1, tp) = accumulated abnormal return (cumulative abnormal return) of the ith security on the t-th day which is accumulated from the abnormal return (RTN) of the i-th security from the beginning of the event period (t1) until the ith day but.

$RTN_{i,t}$ = abnormal return for the i-th securityt-th day

3. Results and Discussion

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3.1 Event 1

Table 4. Event 1

t-Test: Paired Two Samples for Means(Average Abnormal Stock Return – CumulativeAbnormal Return 45 Days Before and After Announcement).

t-Test: Paired Two Samples for Means	AR		CAR	
	BEFORE	*AFTER*	*BEFORE*	*AFTER*
Mean	0.0164	0.0163	0.3884	0.3989
Variance	0.0004	0.0002	0.0395	0.0509
Observations	45	45	45	45
Pearson Correlation	0.1067		0.9756	
Hypothesized Mean Difference	0		0	
df	44		44	
t Stat	0.0145		-1.3032	
P(T<=t) one-tailed	0.4942		0.0996	
t Critical one-tail	2.4141		2.4141	
P(T<=t) two-tailed	0.9885		0.1993	
t Critical two-tail	2.6923		2.6923	

[b.] Source: processed data, 2022

Based on table 1 onPT Bank Rakyat Indonesia (Persero), Tbkshows that the average abnormal stock return 45 days before the announcement was 0.0164 and the average abnormal stock return 45 days after the announcement was 0.0163. From these data it can be seen that the average abnormal stock return 45 days before the announcement is greater than the average abnormal stock return 45 days after the announcement (0.0164 > 0.0163) and there is a difference in the average abnormal return of 0, 0001. Table 1 which tests the H1 hypothesis shows that the calculated t value is 0.0145 with the t table value using α = 0.01 and df = 44 and using a two tail t-Test of 2.6923 where t stat < t-Test two tail (0.0145 < 2.6923) and P-Value value of 0.9885 > α = 0.01. It is concluded that H1a is rejected and H10 is accepted, which means there are no significant abnormal stock returnsbefore and after the announcement of mergers and acquisitions (M&A)onPT Bank Rakyat Indonesia (Persero), Tbkbetween 2011 and 2021.

That the average cumulative abnormal stock return 45 days before the announcement was 0.3884 and the average cumulative abnormal stock return 45 days after the announcement was 1.1564. From these data it can be seen that the average cumulative abnormal stock return 45 days before the announcement is smaller than the average cumulative abnormal stock return 45 days after the announcement (0.3884 < 1.1564) and there is a difference in the average cumulative abnormal return of 0.7680. Table 1 which tests the H2 hypothesis shows that the calculated t value is -1.3032 with the t table value using α = 0.01 and df = 44 and using a two tail t-Test of 2.6923 where t stat < t-Test two tail (0.0145 < 2.6923) and P-Value value of 0.1993 > α = 0.01. It can be concluded that H2a is rejected and H20 is accepted, which means there are no significant cumulative abnormal stock returnsbefore and after the announcement of mergers and acquisitions (M&A)onPT Bank Rakyat Indonesia (Persero), Tbkbetween 2011 and 2021.

3.2 Event 2

Table 5. Event 2

t-Test: Paired Two Samples for Means(Average Abnormal Stock Return – CumulativeAbnormal Return 45 Days Before and After Announcement)

t-Test: Paired Two Samples for Means	AR		CAR	
	BEFORE	*AFTER*	*BEFORE*	*AFTER*
Mean	0.0022	0.0029	0.0472	0.0598
Variance	0.0001	0.0001	0.0017	0.0017
Observations	45	45	45	45
Pearson Correlation	-0.1578		0.9247	
Hypothesized Mean Difference	0		0	
df	44		44	
t Stat	-0.2627		-5.2876	
P(T<=t) one-tailed	0.3970		0.0000	
t Critical one-tail	2.4141		2.4141	
P(T<=t) two-tailed	0.7940		0.0000	
t Critical two-tail	2.6923		2.6923	

[c.] Source: processed data, 2022

Based on table 2 on PT Bank Central Asia, Tbk shows that the average abnormal stock return 45 days before the announcement was 0.0022 and the average abnormal stock return 45 days after the announcement was 0.0029. From these data it can be seen that the average abnormal stock return 45 days before the announcement is smaller than the average abnormal stock return 45 days after the announcement (0.0022 < 0.0029) and there is a difference in the average abnormal return of 0, 0007. Table 2 which tests the H1 hypothesis shows that the calculated t value is -0.2627 with the t table value using α = 0.01 and df = 44 and using a two tail t-Test of 2.6923 where t stat < t-Test two tail (-0.2627 < 2.6923) and a P-Value of 0.7940 > α = 0.01. It is concluded that H1a is rejected and H10 is accepted, which means there are no significant abnormal stock returnsbefore and after the announcement of mergers and acquisitions (M&A) onPT Bank Central Asia, Tbk between 2011 and 2021.

That the average cumulative abnormal stock return 45 days before the announcement was 0.0472 and the average cumulative abnormal stock return 45 days after the announcement was 0.1640. From these data it can be seen that the average cumulative abnormal stock return 45 days before the announcement is smaller than the average cumulative abnormal stock return 45 days after the

announcement (0.0472 < 0.1640) and there is a difference in the average cumulative abnormal return of 0.1168. Table 2 which tests the H2 hypothesis shows that the calculated t value is -5.2876 with the t table value using α = 0.01 and df = 44 and using a two tail t-Test of 2.6923 where t stat < t-Test two tail (-5.2876 < 2.6923) and a P-Value of 0 < α = 0.01. It can be concluded that H2a is rejected and H20 is accepted, which means there are no significant cumulative abnormal stock returnsbefore and after the announcement of mergers and acquisitions (M&A)onPT Bank Central Asia, Tbkbetween 2011 and 2021.

3.3 Event 3

Table 6. Event 3

t-Test: Paired Two Samples for Means(Average Abnormal Stock Return – CumulativeAbnormal Return 45 Days Before and After Announcement)

t-Test: Paired Two Samples for Means	AR		CAR	
	BEFORE	*AFTER*	*BEFORE*	*AFTER*
Mean	0.0134	0.0120	0.3080	0.2750
Variance	0.0001	0.0001	0.0300	0.0274
Observations	45	45	45	45
Pearson Correlation	0.2135		0.9952	
Hypothesized Mean Difference	0		0	
df	44		44	
t Stat	0.8287		12.0957	
P(T<=t) one-tailed	0.2059		0.0000	
t Critical one-tail	2.4141		2.4141	
P(T<=t) two-tailed	0.4118		0.0000	
t Critical two-tail	2.6923		2.6923	

[d.] Source: processed data, 2022

Based on table 3 on PT Bank Mandiri (Persero), T bkshows that the average abnormal stock return 45 days before the announcement was 0.0134 and the average abnormal stock return 45 days after the announcement was 0.0120. From these data it can be seen that the average abnormal stock return 45 days before the announcement is smaller than the average abnormal stock return 45 days after the announcement (0.0134 < 0.0120) and there is a difference in the average abnormal return of 0, 0014. Table 3 which tests the H1 hypothesis shows that the calculated t value is 0.8287 with the t table value using α = 0.01 and df = 44 and using a two tail t-Test of 2.6923 where t stat < t-Test two tail (0.8287 < 2.6923) and the P-Value is 0.4118 > α = 0.01. It is concluded that H1a is rejected and H10 is accepted, which means there are no significant abnormal stock returnsbefore and after the announcement of mergers and acquisitions (M&A)onPT Bank Mandiri (Persero), Tbk between 2011 and 2021.

That the average cumulative abnormal stock return 45 days before the announcement was 0.3080 and the average cumulative abnormal stock return 45 days after the announcement was 0.8818. From these data it can be seen that the average cumulative abnormal stock return 45 days before the announcement is smaller than the average cumulative abnormal stock return 45 days after the announcement (0.3080 < 0.8818) and there is a difference in the average cumulative abnormal return of 0.5738. Table 3 which tests the H2 hypothesis shows that the calculated t value is 12.0957 with the t table value using α = 0.01 and df = 44 and using a two tail t-Test of 2.6923 where t stat < t-Test two tail (12.0957 > 2.6923) and the P-Value is 0 < α = 0.01. It is concluded that H20 is rejected and H2a is accepted, which means there is a significant cumulative abnormal stock returnbefore and after the announcement of mergers and acquisitions (M&A)onPT Bank Mandiri (Persero), Tbkbetween 2011 and 2021.

3.4 Event 4

Table 7. Event 4

t-Test: Paired Two Samples for Means(Average Abnormal Stock Return – CumulativeAbnormal Return 45 Days Before and After Announcement)

t-Test: Paired Two Samples for Means	AR		CAR	
	BEFORE	*AFTER*	*BEFORE*	*AFTER*

Mean	0.0020	0.0036	0.0661	0.0696
Variance	0.0001	0.0001	0.0007	0.0019
Observations	45	45	45	45
Pearson Correlation	-0.1508		0.8399	
Hypothesized Mean Difference	0		0	
df	44		44	
t Stat	-0.7367		-0.8990	
P(T<=t) one-tailed	0.2326		0.1868	
t Critical one-tail	2.4141		2.4141	
P(T<=t) two-tailed	0.4652		0.3736	
t Critical two-tail	2.6923		2.6923	

[e.] Source: processed data, 2022

Based on table 4 onPT Bank Rakyat Indonesia (Persero), Tbk showedThe average abnormal stock return 45 days before the announcement was 0.0020 and the average abnormal stock return 45 days after the announcement was 0.0036. From these data it can be seen that the average abnormal stock return 45 days before the announcement is smaller than the average abnormal stock return 45 days after the announcement (0.0020 < 0.0036) and there is a difference in the average abnormal return of 0, 0016. Table 4 which tests the H1 hypothesis shows that the calculated t value is -0.7367 with the t table value using α = 0.01 and df = 44 and using a two tail t-Test of 2.6923 where t stat < t-Test two tail (-0.7367 < 2.6923) and a P-Value of 0.4652 > α = 0.01. It is concluded that H1a is rejected and H10 is accepted, which means there are no significant abnormal stock returnsbefore and after the announcement of mergers and acquisitions (M&A)onPT Bank Rakyat Indonesia (Persero), Tbkbetween 2011 and 2021.

That the average cumulative abnormal stock return 45 days before the announcement was 0.0661 and the average cumulative abnormal stock return 45 days after the announcement was 0.1622. From these data it can be seen that the average cumulative abnormal stock return 45 days before the announcement is smaller than the average cumulative abnormal stock return 45 days after the announcement (0.0661 < 0.1622) and there is a difference in the average cumulative abnormal return of 0.0961. Table 4.12 which tests the H2 hypothesis shows that the calculated t value is -0.8990 with the t table value using α = 0.01 and df = 44 and using a two tail t-Test of 2.6923 where t stat < t-Test two tail (-0.8990 < 2.6923) and a P-Value of 0.3736 < α = 0.01. It can be concluded that H2a is rejected and H20 is accepted, which means there are no significant cumulative abnormal stock returnsbefore and after the announcement of mergers and acquisitions (M&A)onPT Bank Rakyat Indonesia (Persero), Tbkbetween 2011 and 2021.

3.5 Event 5

Table 8. Event 5

t-Test: Paired Two Samples for Means(Average Abnormal Stock Return – CumulativeAbnormal Return 45 Days Before and After Announcement)

t-Test: Paired Two Samples for Means	**AR**		**CAR**	
	BEFORE	*AFTER*	*BEFORE*	*AFTER*
Mean	0.0172	0.0172	0.0172	0.0172
Variance	0.0001	0.0001	0.0001	0.0001
Observations	45	45	45	45
Pearson Correlation	0.4726		0.4726	
Hypothesized Mean Difference	0		0	
df	44		44	
t Stat	0.0192		0.0192	
P(T<=t) one-tailed	0.4924		0.4924	
t Critical one-tail	2.4141		2.4141	
P(T<=t) two-tailed	0.9848		0.9848	
t Critical two-tail	2.6923		2.6923	

Source: processed data, 2022

Based on table 5 on PT Bank Rakyat Indonesia (Persero), Tbkshows that the average abnormal stock return 45 days before the announcement was 0.0172 and the average abnormal stock return 45 days after the announcement was 0.0172. From these data it can be seen that the average abnormal stock return 45 days before the announcement is smaller than the average abnormal stock return 45

days after the announcement (0.0172 < 0.0172) and there is no difference in the average abnormal return. Table 5 which tests the H1 hypothesis shows that the calculated t value is 0.0192 with the t table value using α = 0.01 and df = 44 and using a two tail t-Test of 2.6923 where t stat < t-Test two tail (0.0192 < 2.6923) and the P-Value is 0.9848 > α = 0.01. It is concluded that H1a is rejected and H10 is accepted, which means there are no significant abnormal stock returnsbefore and after the announcement of mergers and acquisitions (M&A)onPT Bank Rakyat Indonesia (Persero), Tbk between 2011 and 2021.

ThatThe average cumulative abnormal stock return 45 days before the announcement was 0.4086 and the average cumulative abnormal stock return 45 days after the announcement was 1.1967. From these data it can be seen that the average cumulative abnormal stock return 45 days before the announcement is smaller than the average cumulative abnormal stock return 45 days after the announcement (0.4086 < 1.1967) and there is a difference in the average cumulative abnormal return of 0.7881. Table 5 which tests the H2 hypothesis shows that the calculated t value is 0.0192 with the t table value using α = 0.01 and df = 44 and using a two tail t-Test of 2.6923 where t stat < t-Test two tail (0.0192 < 2.6923) and the P-Value is 0.9848 < α = 0.01. It can be concluded that H2a is rejected and H20 is accepted, which means there are no significant cumulative abnormal stock returnsbefore and after the announcement of mergers and acquisitions (M&A)onPT Bank Rakyat Indonesia (Persero), Tbkbetween 2011 and 2021.

3.6 Event 6

Table 9. Event 6

t-Test: Paired Two Samples for Means(Average Abnormal Stock Return – CumulativeAbnormal Return 45 Days Before and After Announcement)

t-Test: Paired Two Samples for Means	AR		CAR	
	BEFORE	*AFTER*	*BEFORE*	*AFTER*
Mean	-0.0025	-0.0011	-0.0560	-0.0130
Variance	0.0000	0.0001	0.0008	0.0003
Observations	45	45	45	45
Pearson Correlation	-0.1037		0.7601	
Hypothesized Mean Difference	0		0	
df	44		44	
t Stat	-0.7320		-15.2577	
P(T<=t) one-tailed	0.2340		0.0000	
t Critical one-tail	2.4141		2.4141	
P(T<=t) two-tailed	0.4681		0.0000	
t Critical two-tail	2.6923		2.6923	

Source: processed data, 2022

Based on table 6 on PT Bank Central Asia, Tbk shows that the average abnormal stock return 45 days before the announcement was -0.0025 and the average abnormal stock return 45 days after the announcement was -0.0011. From these data it can be seen that the average abnormal stock return 45 days before the announcement is smaller than the average abnormal stock return 45 days after the announcement (-0.0025 < -0.0011) and there is a difference in the average abnormal return of 0.0014. Table 6 which tests the H1 hypothesis shows that the calculated t value is -0.7320 with the t table value using α = 0.01 and df = 44 and using a two tail t-Test of 2.6923 where t stat < t-Test two tail (-0.7320 < 2.6923) and a P-Value of 0.4681 > α = 0.01. It was concluded that H1$a$rejected and H10 accepted, which means there are no significant abnormal stock returnsbefore and after the announcement of mergers and acquisitions (M&A)onPT Bank Central Asia, Tbkbetween 2011 and 2021.

That the average cumulative abnormal stock return 45 days before the announcement was -0.0560 and the average cumulative abnormal stock return 45 days after the announcement was -0.1275. From these data it can be seen that the average cumulative abnormal stock return 45 days before the announcement is greater than the average cumulative abnormal stock return 45 days after the announcement (-0.0560 < -0.1275) and there is a difference in the cumulative average abnormal return of 0.0715. Table 6 which tests the H2 hypothesis shows that the calculated t value is -15.2577 with the t table value using α = 0.01 and df = 44 and using a two tail t-Test of 2.6923 where t stat <

t-Test two tail (-15.2577 < 2.6923) and a P-Value of 0 < α = 0.01. It can be concluded that H2a is rejected and H20 is accepted, which means there are no significant cumulative abnormal stock returnsbefore and after the announcement of mergers and acquisitions (M&A)onPT Bank Central Asia, Tbk between 2011 and 2021.

3.7 Event 7

Table 10. Event 7

t-Test: Paired Two Samples for Means(Average Abnormal Stock Return – CumulativeAbnormal Return 45 Days Before and After Announcement)

t-Test: Paired Two Samples for Means	AR		CAR	
	BEFORE	*AFTER*	*BEFORE*	*AFTER*
Mean	0.0041	0.0021	0.0731	0.0457
Variance	0.0001	0.0001	0.0025	0.0016
Observations	45	45	45	45
Pearson Correlation	0.0475		0.9077	
Hypothesized Mean Difference	0		0	
df	44		44	
t Stat	0.8712		8.6000	
P(T<=t) one-tailed	0.1942		0.0000	
t Critical one-tail	2.4141		2.4141	
P(T<=t) two-tailed	0.3884		0.0000	
t Critical two-tail	2.6923		2.6923	

[f.] Source: processed data, 2022

Based on table 7 in onPT Bank Central Asia, Tbkshows that the average abnormal stock return 45 days before the announcement was 0.0041 and the average abnormal stock return 45 days after the announcement was 0.0020. From these data it can be seen that the average abnormal stock return 45 days before the announcement is smaller than the average abnormal stock return 45 days after the announcement (0.0041 < 0.0020) and there is a difference in the average abnormal return of 0, 0021. Table 7 which tests the H1 hypothesis shows that the calculated t value is 0.8712 with the t table value using α = 0.01 and df = 44 and using a two tail t-Test of 2.6923 where t stat < t-Test two tail (0.8712 < 2.6923) and P-Value value of 0.3884 > α = 0.01. It is concluded that H1a is rejected and H10 is accepted, which means there are no significant abnormal stock returnsbefore and after the announcement of mergers and acquisitions (M&A)onPT Bank Central Asia, Tbkbetween 2011 and 2021.

That the average cumulative abnormal stock return 45 days before the announcement was 0.0772 and the average cumulative abnormal stock return 45 days after the announcement was 0.2415. From these data it can be seen that the average cumulative abnormal stock return 45 days before the announcement is smaller than the average cumulative abnormal stock return 45 days after the announcement (0.0772 < 0.2415) and there is a difference in the average cumulative abnormal return of 0.1643. Table 7 which tests the H2 hypothesis shows that the calculated t value is 8.6000 with the t table value using α = 0.01 and df = 44 and using a two tail t-Test of 2.6923 where t stat < t-Test two tail (8.6000 < 2.6923) and the P-Value is 0 < α = 0.01. It can be concluded that H2a is rejected and H20 is accepted, which means there are no significant cumulative abnormal stock returnsbefore and after the announcement of mergers and acquisitions (M&A)onPT Bank Central Asia, Tbkbetween 2011 and 2021.

3.8 Event 8

Table 11. Event 8

t-Test: Paired Two Samples for Means(Average Abnormal Stock Return – CumulativeAbnormal Return 45 Days Before and After Announcement)

t-Test: Paired Two Samples for Means	**AR**		**CAR**	
	BEFORE	*AFTER*	*BEFORE*	*AFTER*
Mean	0.0146	0.0284	0.3123	0.9651
Variance	0.0005	0.0093	0.0348	0.0326
Observations	45	45	45	45

Pearson Correlation	-0.0915	0.9784
Hypothesized Mean Difference	0	0
df	44	44
t Stat	-0.9146	-113.4028
P(T<=t) one-tailed	0.1827	0.0000
t Critical one-tail	2.4141	2.4141
P(T<=t) two-tailed	0.3654	0.0000
t Critical two-tail	2.6923	2.6923

g. Source: processed data, 2022

Based on table 8 onPT Bank Rakyat Indonesia (Persero), Tbk showedThe average abnormal stock return 45 days before the announcement was 0.0146 and the average abnormal stock return 45 days after the announcement was 0.0284. From these data it can be seen that the average abnormal stock return 45 days before the announcement is smaller than the average abnormal stock return 45 days after the announcement (0.0146 < 0.0284) and there is a difference in the average abnormal return of 0, 0138. Table 8 which tests the H1 hypothesis shows that the calculated t value is -0.9146 with the t table value using α = 0.01 and df = 44 and using a two tail t-Test of 2.6923 where t stat < t-Test two tail (-0.9146 < 2.6923) and a P-Value of 0.3654 > α = 0.01. It is concluded that H1a is rejected and H10 is accepted, which means there are no significant abnormal stock returnsbefore and after the announcement of mergers and acquisitions (M&A)onPT Bank Rakyat Indonesia (Persero), Tbkbetween 2011 and 2021.

That the average cumulative abnormal stock return 45 days before the announcement was 0.3123 and the average cumulative abnormal stock return 45 days after the announcement was 1.6195. From these data it can be seen that the average cumulative abnormal stock return 45 days before the announcement is smaller than the average cumulative abnormal stock return 45 days after the announcement (0.3123 < 1.6195) and there is a difference in the average cumulative abnormal return amounting to 1.3072. Table 4.24 which tests the H2 hypothesis shows that the calculated t value is -113.4028 with the t table value using α = 0.01 and df = 44 and using a two tail t-Test of 2.6923 where t stat < t-Test two tail (-113.4028 < 2.6923) and a P-Value of 0 < α = 0.01. It can be concluded that H2a is rejected and H20 is accepted, which means there are no significant cumulative abnormal stock returnsbefore and after the announcement of mergers and acquisitions (M&A) onPT Bank Rakyat Indonesia (Persero), Tbkbetween 2011 and 2021

Discussion

This research shows the results that abnormal returns and cumulative abnormal stock returns responding to announcements of mergers and acquisitions (M&A) show positive and negative results both before and after the announcement of mergers and acquisitions (M&A). This research discusses eight merger and acquisition (M&A) events carried out by 3 companies between 2011 - 2021. It can be seen that the results before and after the announcement of mergers and acquisitions (M&A) in the event of abnormal returns tend to produce positive results from price movements. shares that occurred in event 2 and the average cumulative abnormal return from the eight events that occurred. For cumulative abnormal returns, it produces stock movements with positive results that occur at event 1, event 2, event 3, event 5, event 8 and the average cumulative abnormal return from eight events. In contrast to event 4 and event 7, in the results of stock movements before the announcement of mergers and acquisitions (M&A), it can be assessed that the results of cumulative abnormal returns, even though there are fluctuating stock movements, can produce average shares that display positive numbers. Furthermore, in event 7 specifically abnormal returns before the publication of the announcement of mergers and acquisitions (M&A), the value of stock return prices varies but still produces a positive sign. In line with research conducted by Patel and Shah (2016), two companies produced positive data regarding the abnormal returns from six banking companies that were acquired. Mall and Gupta (2019) explain that the results of calculating abnormal returns which are calculated based on before and after the event produce positive numbers. Research conducted by Fitriningrum et al. (2020) explains that the acquisition carried out by the company PT Bank Central Asia Tbk of PT Central Sentosa Finance resulted in positive results. And in Upadhyay and Kurmi's (2020) research, it was reported that after the announcement of mergers and acquisitions (M&A), the market responded with stock movements in a positive direction.

Meanwhile, what happened in event 1, event 3 and event 5 in the abnormal return results did not show any significant changes and this proves that there may be no information content in the announcement of mergers and acquisitions (M&A) made by the company. Patel and Shah (2016) explained that the abnormal return results from six banking companies that were acquired, there was one company that did not cause significant changes. According to Muttalib et al. (2019) results show that there is no significant difference with market performance. Kumara et al. (2019) outlined that there were no significant changes observed in share prices following the merger announcement. Even though mergers and acquisitions (M&A) are company activities that can be said to be large enough to have an impact on the value of the acquiring company.

Event 6 abnormal returns before and after the announcement of mergers and acquisitions (M&A) moved in a negative direction. Likewise, what happened in events 4 and 7 for cumulative abnormal returns after the announcement experienced a drastic decline so that stock returns also decreased. Meanwhile, what happened in event 6 created a stock movement response that occurred before and after the announcement, showing a negative effect because stock movements continued to decline significantly. In line with research that has been tested by Patel and Shah (2016), the results of research on pre- and post-announcement merger announcements resulted in 3 banks displaying negative data from the 6 banks studied. Furthermore, research conducted by Rahman et al. (2018) describing the results of abnormal returns for 7 banks from 11 banking companies revealed that the observation results were negative, as well as the cumulative abnormal returns from the 11 banks studied, there were 8 banking companies that produced negative values. According to Vijayavargiya (2020); Koo et al. (2020); and Kim et al. (2020) explains that the impact of acquisition announcements on stock movements triggers negative assessments. Research conducted by Maneenop and Kotcharin (2020); Naidu et al. (2021); and Shahzad et al. (2021) informs that apart from the announcement of mergers and acquisitions (M&A), other factors such as the announcement of Covid-19 can also result in a decline in share prices due to fear of the announcement.

4. Conclusion

The conclusion is that of the eight events there was one event that produced negative abnormal returns and cumulative abnormal returns or perceived bad news regarding the announcement of mergers and acquisitions (M&A) as in event six. Where the market reacts with (overreaction), investors consider news of announcements of mergers and acquisitions (M&A) to be bad news so that stock prices move with extreme declines (loser).

Other events experienced a significant increase starting from before the announcement of mergers and acquisitions (M&A) to after the announcement of mergers and acquisitions (M&A). This extreme increase (winner) occurred at event 1, event 2, event 3, event 4, event 5, event 7, event 8 and an average of eight events. Investors respond to market information with announcements of mergers and acquisitions (M&A) which is good news. Changes in stock price movements mean the creation of a response from the market which is called overreaction.

Suggestion

Before carrying out stock trading activities, investors must pay more attention to the company that is or will be launching a corporate action, one of which concerns the announcement of mergers and acquisitions (M&A) because each event contains information in it that investors can use to see whether there is an influence on prices. shares to be invested.

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