



Event study announcement of fraud and abnormal returns of BUMN companies

Umi Zahrotin Nafisa¹, Makaryanawati¹, Haslinda²

¹Universitas Negeri Malang, Jl. Semarang No. 05, Malang, Jawa Timur, 65145, Indonesia

²Universiti Teknologi MARA, Jalan Ilmu 1/1, Shah Alam, Selangor 40450, Malaysia

Received: 18 Mei 2023

Revised: 12 Juli 2023

Accepted: 13 Juli 2023

Correspondence:

makaryanawati.fe@um.ac.id

DOI:

<http://dx.doi.org/10.17977/um004v10i122023p129>

Abstract

This study aims to determine the effect of fraudulent financial reporting of BUMN on abnormal returns. This study is important because most of the research examining these events has been conducted in developed markets. This study uses an event study approach with a window period of five days before and five days after the incident. By using the purposive sampling method, five BUMN companies that were reported to have committed the fraudulent in 2019 was selected in this study. The result shows that the incident of fraudulent financial report announcements does not significantly affect abnormal returns. This finding shows that the investors reaction the fraudulent news be not significant. This concludes that the news of fraudulent BUMN companies is not strong enough to influence investment decisions in the capital market. The results of this study are useful for investors in considering investment decisions in state-owned companies because they have fundamentally strong capital, so investors feel safe to invest. The results of this study contribute to the literature by adding new insights about fraud announcement events in BUMN. The results of this study also support the signal theory concept because investors respond to the second and third events as bad signals.

Keywords: abnormal returns; event study; financial fraudulent announcement; signaling theory

Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh peristiwa pengumuman kecurangan BUMN terhadap abnormal return. Penelitian ini penting untuk dilakukan karena sebagian besar penelitian yang mengkaji peristiwa tersebut dilakukan di pasar negara maju. Penelitian ini menggunakan pendekatan event study dengan periode jendela lima hari sebelum dan lima hari setelah peristiwa. Dengan menggunakan metode purposive sampling, lima perusahaan BUMN yang diberitakan melakukan kecurangan pada tahun 2019 menjadi sampel dalam penelitian ini. Hasilnya menunjukkan bahwa peristiwa pengumuman kecurangan tidak berpengaruh secara signifikan terhadap abnormal return. Temuan ini menunjukkan bahwa reaksi investor atas berita kecurangan tidak signifikan. Artinya berita kecurangan perusahaan BUMN tidak cukup kuat untuk memengaruhi keputusan investasi di pasar modal. Hasil penelitian ini bermanfaat bagi investor dalam mempertimbangkan keputusan investasi di perusahaan BUMN karena memiliki modal yang kuat secara fundamental, sehingga investor merasa aman untuk berinvestasi. Hasil penelitian ini berkontribusi pada literatur dengan menambah wawasan baru tentang peristiwa pengumuman kecurangan di BUMN. Hasil penelitian ini juga

mendukung konsep teori sinyal karena investor merespons peristiwa kedua dan ketiga sebagai sinyal buruk.

Kata Kunci: abnormal return; event study; pengumuman kecurangan; signaling theory

INTRODUCTION

An efficient capital market is a market in which all information reflects the prices of all traded securities (Cheng & Christiawan, 2011; Fama, 1970; Helanda & Suryani, 2020; Kalayil *et al.*, 2019; Peón, Antelo, & Calvo, 2019). If the market is efficient, it will adapt quickly to all new and unexpected information (Baucus & Baucus, 1997; Eliyawati, Hidayat, & Azizah, 2014), and the stock price will change according to the random walk theory (RWT) (Brown, 2020; du Toit, Hall, & Pradhan, 2018; Fama, 1970; Helanda & Suryani, 2020; Peón, Antelo, & Calvo, 2019). Stock prices that fluctuate outside of normal conditions can lead to abnormal returns (Sahputra & Diantimala, 2018; Sorescu, Warren, & Ertekin, 2017). An abnormal return is the difference between the actual return and the expected return (Hartono, 2017). In this case, the abnormal return can be negative or positive. For example, the research by Najam & Mehmood (2019) examined natural disaster events and showed a negative signal. Another study conducted by Lee & Connolly (2010) related to IT news and showed there are 10 positive and 13 negative abnormal returns.

Abnormal return can be influenced by an event or information. Several previous kinds of literature have conducted research related to the causes of abnormal returns (Liu & Liu, 2015) by using the event study method (Puah & Liew, 2011). Event study observes changes in stock prices around the date of company events. The event can be a voluntary company announcement or made by another entity (Sorescu, Warren, & Ertekin, 2017). One of the events that can affect stock prices is the fraud announcement event (Song & Han, 2017). For companies, news of fraud is considered bad news that has the potential to damage the company's reputation (Ghafoor, Zainudin, & Mahdzan, 2019; Smith *et al.*, 2019), lower sales, and lower stock prices (Hartono, 2017). The fraud that occurs is likely to be widely covered by the media and have a serious impact on investors' decisions to buy, hold or sell their shares (Song & Han, 2017). This is because the fraud that occurs poses a serious threat to investor confidence in the audited and published financial statements (Sane, 2019). In addition, the existing lawsuit also resulted in an economically and statistically significant loss in shareholder wealth (Murphy, Shrieves, & Tibbs, 2009), so rational investors will react by discounting the stock price resulting in a negative reaction (Zeidan, 2013).

Association of Certified Fraud Examinations (ACFE) (2020) stated that the problem of fraud continues to this day in Indonesia. ACFE found that there were 239 cases including 167 cases of corruption, 22 cases of financial statement fraud, and 50 cases of misuse of state and company assets or assets. (ACFE, 2020). The number of cases has increased from the previous survey of 229 cases (ACFE, 2017). In terms of organizations or institutions that are most disadvantaged due to fraud, Badan Usaha Milik Negara (BUMN) is in second place after the government, private companies are in third place, and non-profit organizations are in fourth place (ACFE, 2020). This means that every company has the possibility of fraud cases, including BUMN companies.

The increasing number of fraud cases has made many researchers interested in studying the stock market reaction to these events (Zeidan, 2013). A large body of literature

has emerged and is beginning to estimate the impact of fraudulent announcements on investor behavior from the fraud event (Sane, 2019), but found a different reaction. Zeidan (2013) examined the impact of the company's illegal actions on the performance of banking companies and found a significant negative reaction. Furthermore, Aggarwal, Hu, & Yang, (2015) looked at the market reaction to fraud by companies in China and found a negative reaction to stock prices. This finding is consistent with other studies which also found negative reactions to news of fraud (Cox & Weirich, 2002; Davidson, Worrell, & Lee, 1994; Davidson & Worrell, 1988; Feroz, Park, & Pastena, 1991; Francis, Philbrick, & Schipper, 1994; Kellogg, 1984; Song & Han, 2017; Strachan, Smith, & Beedless, 1983). However, other studies did not find any significant negative reaction on stock prices to fraudulent announcements (see Eryigit, 2019; Rao, 1997; Tay *et al.*, 2016). That is, there are inconsistencies in the results of previous studies.

This study examines the market reaction when there is an announcement of a company's fraud which is measured by abnormal returns to represent the information content of the market reaction. By using the event study method, this research uses signaling theory which provides the basis for estimating the market reaction to fraud announcement events. Signal theory is concerned with reducing the information asymmetry of both parties (individuals or organizations) in the market (Spence, 1978). Signaling theory suggests that the signaler has greater inside information that is not known to the public or has not yet reached the receiver, with equally important qualities (Spence, 1978). The information can be negative or positive and when illustrated by the signaler it will be useful to the receiver (Kirmani & Rao, 2000; Yasar, Martin, & Kiessling, 2020). The content of the existing information will provide a message to market participants and will be used to make decisions (Bhattacharya, 1979). If an event or information occurs suddenly, the market will react and the stock price may also change (Suryani & Pertiwi, 2021).

Each event can contain good or bad information as a signal that will have an impact on the capital market in a country. The event of announcing fraud may give a bad signal (bad news) and be responded to negatively by the capital market, such as the results of research conducted by Cox & Weirich (2002); Davidson & Worrell (1988); Feroz, Park, & Pastena (1991); Francis, Philbrick, & Schipper (1994); Kellogg (1984). This is because efficient markets respond negatively to bad news (Tandelilin, 2010). However, investors may not react to the event (abnormal return is zero). This is because the information contained in the release of fraudulent news will send a message to market participants and will be used to make decisions. Accurate and reliable information content will be one of the main prerequisites for investors in determining the right investment decisions (Eryigit, 2019).

This study aims to determine the effect of fraudulent financial reporting of BUMN on abnormal returns. This study is expected to increase knowledge and insight to market participants in making investment decisions to buy, hold, or sell shares that are held when there is a future fraud event. This study tries to answer suggestions from previous research by Song & Han (2017) and Zeidan (2013) to be able to broaden its line of inquiry by focusing on a different market i.e. in developing countries. This is because most of the research examining these events was conducted in developed markets (Zeidan, 2013), while in emerging markets with different investor characteristics (Tay *et al.*, 2016) still very limited. The Indonesian stock market has a relatively low capitalization and may not be as efficient as the capital markets of more developed countries (Utama & Hapsari, 2012). Thus, this study formulates the following hypothesis:

H_a: There is an effect of fraud announcements made by the company on abnormal returns

METHOD

This study collects daily stock closing price data and the Indeks Harga Saham Gabungan (IHSG) before, during, and after the fraud announcement incident taken from yahoo finance. The sample was taken using a purposive sampling method with the following criteria: (1) BUMN companies listed on the Indonesia Stock Exchange in 2019 (n=25), (2) reported cheating in 2019 (n=5). To find out which companies were reported to have committed fraud and the date when the news first reached the public, this study uses five online news sites that are in the top ten the most popular sites, namely detik.com, kompas.com, liputan6.com, okezone.com, and tribunnews.com (Alexa, 2020; Kompasiana, 2020). When different event dates are found from the five news sites, the date that is the first to reach the public will be selected. This study conducted observations for five days before and five days after the event. This is done to avoid the possibility of other events occurring so that information from one event is mixed with other events (Song & Han, 2017).

Table 1. Distribution of Estimated Time and Window Duration

Corporate	Event	Estimated Time Duration		Window Time Duration		
		t-120	t-21	t-05	t0*	t+05
PT Wijaya Karya	1	18/09/2018	12/02/2019	06/03/2019	14/03/2019	21/03/2019
PT Krakatau Steel	2	26/09/2018	20/02/2019	15/03/2019	22/03/2019	29/03/2019
PT Garuda Indonesia	3	23/10/2018	20/03/2019	15/04/2019	24/04/2019	02/05/2019
Bank Negara Indonesia	4	18/04/2019	17/09/2019	09/10/2019	16/10/2019	23/10/2019
Bank Tabungan Negara	5	14/06/2019	01/11/2019	25/11/2019	02/12/2019	09/12/2019

*Note: announcement date

The period of this research is 2019 because the results of the Indonesian fraud survey show an increase in the number of fraud cases. The BUMN company was chosen because it was ranked second after the government as the institution that was most disadvantaged by the fraud incident. In addition, BUMN shares are the driving force of the Indonesian capital market, which has a market capitalization portion of 24% of the total market capitalization of the IDX (Kosasih, 2021). To examine whether there is a market reaction, this study uses abnormal return proxies. Abnormal returns are sought by calculating the difference between the actual return value and the expected return value (Hartono, 2017; Takmaz & Keleş, 2017). In this case, abnormal return testing involves several steps, namely:

1. Calculating stock returns ($R_{i,t}$) and market returns ($R_{M,t}$)

Calculating stock returns and market returns for the estimation period is the first step to being able to calculate abnormal returns. According to Peterson (1989), there is no agreement about the length of the estimation period, so this study follows the previous study using an estimated observation time of 100 days (Eryigit, 2019), from 120 days to 21 trading days before the date the event was first released (Qian, Suryani, & Xing, 2020). Stock returns and market returns are calculated using the natural logarithm of the daily closing stock price and the IHSG with the formula:

$$R_{i,t} = \ln \frac{P_{i,t}}{P_{i,t-1}} \quad (1)$$

$$R_{M,t} = \ln \frac{IHSG_t}{IHSG_{t-1}} \quad (2)$$

2. Performing Classical Assumption Test

Various studies have found problems such as abnormal data, heteroscedasticity, and autocorrelation (Rosadi, 2012; Widarjono, 2018). Therefore, the data obtained must be

tested first to meet the basic assumptions (Helanda & Suryani, 2020). This study uses the Skewness and Kurtosis tests for the assumption of normality (Hair *et al.*, 2014), the Durbin Watson test to see whether there is autocorrelation, and the Breach Pagan test to see whether there is heteroscedasticity (Andriani, 2017). Based on the results of the tests that have been carried out, the research data is normally distributed, there are no symptoms of autocorrelation, and no symptoms of heteroscedasticity. That is, the standard market model can be used to calculate the expected return (Mackinlay, 1997).

3. Performing Ordinary Least Square (OLS) regression

The use of OLS is justified under the assumption of normality and homoscedastic error (Talwar, 1993). OLS regression was carried out to get the alpha (α) and beta (β_i) values during the estimation period (Suryani & Pertiwi, 2021). The OLS regression equation is formulated by (Mackinlay, 1997):

$$R_{i,t} = \alpha + \beta_i R_{M,t} + \varepsilon_{i,t} \quad (3)$$

4. Calculating the expected return during the window period

After getting the values α and β_i , then the next step is to calculate the expected return value which is formulated by:

$$E[R_{i,t}] = \alpha + \beta_i R_{M,t} \quad (4)$$

5. Calculating abnormal return value ($RTN_{i,t}$)

Abnormal returns daily over the event window period are obtained by calculating the difference between the actual return and the expected return which is defined by (Hartono, 2017):

$$RTN_{i,t} = R_{i,t} - E[R_{i,t}] \quad (5)$$

If there is uncertainty about the time when event information is presented to the market, abnormal returns must be accumulated for a certain time (Eryigit, 2019), to see the general effect of the event (Mackinlay, 1997). CAR is calculated from the accumulation of five days of abnormal return with the formula (Suryani & Pertiwi, 2021):

$$CAR = \sum_{t=1}^N RTN_{i,t} \quad (6)$$

6. Hypothesis test

a. Normality test

The main problem in the abnormal return and cumulative abnormal return statistical test is that the data is not normally distributed (see Brown & Warner, 1985). Therefore, a normality test was conducted first using Skewness and Kurtosis tests and it was found that the z value was between the value of -3 and 3, meaning that the data was normally distributed (Hair *et al.*, 2014).

b. t-test

The abnormal return data in this study is normally distributed so that the test hypothesis uses a one-sample t-test (t-test). The t-test was carried out to test the difference in the average of one sample with a hypothesis value (Wiyono, 2011). In this test, if the p-value > 0.05 then H_0 cannot be rejected and vice versa (Cleophas & Zwinderman, 2016).

RESULT AND DISCUSSION

The results of descriptive statistics show that the average abnormal return and negative cumulative abnormal return occur in the second and third cases (Table 2). This indicates that there was a market shock that caused the company's stock to fall. Meanwhile, in the first, fourth, and fifth cases, the average abnormal return and cumulative abnormal return are positive. This means that the fraud announcement event provided bad news in the market, but not all market participants responded negatively to the fraudulent news information. This can be seen from the average abnormal return and cumulative abnormal return, which are mostly positive.

Table 2. Descriptive Statistics

Variable	Min	Max	Mean	Standard Deviation
Event 1				
AR	0,0075	0,0344	0,0067	0,0134
CAR	0,0152	0,0645	0,0412	0,0162
Event 2				
AR	0,0221	0,0206	-0,0038	0,0106
CAR	-0,0364	0,0235	-0,0125	0,0259
Event 3				
AR	0,0843	0,1241	-0,0065	0,0599
CAR	-0,1508	0,1261	-0,0464	0,1029
Event 4				
AR	0,0136	0,0257	0,0058	0,0145
CAR	0,0155	0,0567	0,0395	0,0169
Event 5				
AR	0,0288	0,0486	0,0053	0,0224
CAR	-0,0121	0,0435	0,0207	0,0210

Table 3 shows the results of hypothesis testing using a one-sample t-test. The significance value of abnormal returns from the five fraud announcement events shows a value greater than 0.05, meaning that H₀ cannot be rejected. These results are strengthened by testing cumulative abnormal return which also shows a significance value greater than 0.05 in the second and third events. This indicates that the fraud announcement event does not have a significant effect on the abnormal returns of BUMN companies that are reported to have committed fraud. These findings indicate that negative information is not strong enough to influence investors' decisions (Suryani & Pertiwi, 2021) to buy, hold, or sell the shares it owns (Song & Han, 2017). The results of this study are consistent with research conducted by Eryigit (2019); Rao (1997); and Tay *et. al.*, (2016).

Table 3. t-test Result

Variable	p-value				
	Event 1	Event 2	Event 3	Event 4	Event 5
AR	0,127	0,259	0,697	0,213	0,455
CAR	0,001	0,249	0,278	0,001	0,041

Table 3 also shows the test result of cumulative abnormal returns during the window period. Significance value-cumulative abnormal returns on the first, fourth, and fifth events show a value less than 0.05. This indicates that the fraud announcement event influences the cumulative abnormal returns of BUMN companies that are reported to have committed fraud in the incident first, fourth and fifth. The results of this study are following signaling theory which states that the market will respond to information obtained from both management and the mass media as a signal of certain events that can affect firm value. (Supragita, 2011). This is because an event that contains information will provide a message to capital market participants that will be used to make decisions (Sugeng, 2017). The

results of this study found that the second and third events contain a bad signal indicated by the average abnormal return and values of cumulative negative abnormal returns. That is, the market is considered to have reacted to the event (Hartono, 2017).

There is no significant effect of the fraud announcement event on the abnormal returns of BUMN companies, possibly because there were other major events that occurred in 2019 (Hatta, 2019). 2019 is the first year in the history of simultaneous elections in Indonesia (Astuti, 2021). Investors' attention may be diverted to the event, resulting in no market reaction to the news of the fraud. In addition, the fraud announcement event is not an event that happened for the first time (ACFE, 2020). Therefore, fraudulent news is not considered new information that causes fluctuations in the capital market (Eryigit, 2019). Investors assume that the information in the fraudulent news is not strong enough to influence the decision to invest in the capital market. This is in line with Eryigit (2019) that investors do not think of fraudulent news as negative news that will lead to a negative assessment by investors.

According to Government Regulation Number 72 of 2016 states that BUMN companies are companies whose shares are wholly or most of the shares owned by the government at least 51% (Indonesia, 2016). This means that the government becomes the largest shareholder of BUMN companies (Perdana, 2019). Given that the purpose of investors investing in the capital market is to make a profit (Ahmad, 2004), investors may think that BUMN companies are strongly supported by the government so that they are not easily bankrupt because of news of fraud. This led investors to speculate that the news of the fraud did not lead to significant return losses (Rao, 1997).

Another possibility is that investors see that certain individuals who are the cause of the alleged fraud event exist (Cloninger & Waller, 2000). News of BUMN companies' fraud in this study was mostly carried out by individuals within the company (see Fadhil, 2019; Krisjanuar, 2019; Liputan6.com, 2019; Rachman, 2019). This makes investors think that the costs incurred as a result of the trial process will be borne by the individual accused (Azzam & Karlquist, 2008). In addition, sanctions provided by the authorities are also imposed and borne by the perpetrators of fraud. The company does not cover the costs incurred as a result of prosecuting individuals who commit fraud, so investors may assume that they do not see dramatic changes in cash flows when news of the fraud reaches the public (Azzam & Karlquist, 2008). Investors think that the losses that may be incurred as a result of these events do not necessarily affect the wealth of shareholders (Rao, 1997).

Investors' reaction to news depends on whether the news is perceived to affect the company's future cash flows (Groening & Kanuri, 2016; Xiong, Chapple, & Yin, 2018). The news of the existing fraud brings uncertainty because it has not been resolved when the release of information reaches the public (Cox & Weirich, 2002). News of BUMN company's fraud was published even before the person or company became a defendant. This may affect the market's expectations of the event, which is indicated by the absence of a negative effect on the abnormal return of the event. Investors may think that news of fraud does not affect their holdings in the company and there is no real risk in maintaining investment positions (Azzam & Karlquist, 2008). This is following previous research that the market does not react to the announcement of problems that are resolved at a later date (Feroz, Park, & Pastena, 1991; Puah & Liew, 2011).

CONCLUSION

This study aims to examine the effect of the announcement of fraudulent BUMN companies on abnormal returns. Based on the results of the tests carried out, it can be

concluded that news of fraud does not have a significant impact on abnormal returns. This may be because the majority of BUMN company's shares are held by the government. Corporate cheating news is not an event that happened for the first time, so it is not strong enough to influence investors' decisions to invest. In addition, the person who is the defendant in the fraud incident personally bears the costs and sanctions that arise as a result of the trial process, so investors do not see any dramatic changes in cash flows. Investors think that the losses that may be incurred as a result of these events do not necessarily affect the wealth of shareholders. The results of this study contribute to the literature by adding new insights about the impact of fraud announcement events in BUMN. The results of this study also support the concept of signal theory because investors respond to the second and third events as bad signals, as indicated by the negative average abnormal returns and cumulative abnormal returns.

This study has limitations, namely that it only looks at the impact of events where companies are reported for the first time to the public to have committed fraud. Therefore, future research can look at the impact of other related events, such as announcements when a company or person in the company who acts as a fraud perpetrator is charged and punished. Given that cheating has occurred, the news brings uncertainty because it has not been resolved when the release of information reaches the public. So, this needs to be done to see the long-term impact of the existing fraud announcement events. This study also does not consider confounding variables such as natural disaster events in the observation period. Future research can add confounding variables to find out whether other variables affect the average abnormal return.

REFERENCES

- ACFE. (2017). *Survei Fraud Indonesia 2016*. https://acfe-indonesia.or.id/wp-content/uploads/2017/07/SURVAL-FRAUD-INDONESIA-2016_Final.pdf.
- ACFE. (2020). *Survei Fraud Indonesia 2019*. <https://acfe-indonesia.or.id/wp-content/uploads/2020/07/SURVEI-FRAUD-INDONESIA-2019.pdf>.
- Aggarwal, R., Hu, M., & Yang, J. (2015). Fraud, Market Reaction, and the Role of Institutional Investors in Chinese Listed Firms. *Journal of Portfolio Management*, 41(5), 92-109. doi:10.3905/jpm.2015.41.5.092.
- Ahmad, K. (2004). *Dasar-dasar Manajemen Investasi dan Portofolio*. Jakarta: Rineka Cipta.
- Alexa. (2020). *Top Sites in Indonesia*. Alexa Internet, Inc. <https://www.alexa.com/topsites/countries/ID>.
- Andriani, S. (2017). Uji Park dan Uji Breusch Pagan Godfrey dalam Pendeteksian Heteroskedastisitas pada Analisis Regresi. *Al-Jabar : Jurnal Pendidikan Matematika*, 8(1), 63-72. doi:10.24042/ajpm.v8i1.1014.
- Astuti, N. F. (2021). *Mengenang Peristiwa 17 April 2019: Pelaksanaan Pemilu Serentak Pertama di Indonesia*. Merdeka.com. <https://www.merdeka.com/jabar/mengenang-peristiwa-17-april-2019-pelaksanaan-pemilu-serentak-pertama-di-indonesia-klh.html>.
- Azzam, M., & Karlquist, J. (2008). *Effects of Allegations of Corporate Misconduct on Share Value - A Study on the Swedish Market*. (Unpublished master's thesis in Finance). Stockholm School of Economics.
- Baucus, M. S., & Baucus, D. A. (1997). Paying the Piper: An Empirical Examination of Longer-term Financial. *The Academy of Management Journal*, 40(1), 129-151. doi:10.5465/257023.
- Bhattacharya, S. (1979). Imperfect Information, Dividend Policy, and "The Bird in the Hand" Fallacy. *The Bell Journal of Economics*, 10(1), 259-270.

doi:10.2307/3003330.

- Brown, S. J. (2020). The Efficient Market Hypothesis, the Financial Analysts Journal, and the Professional Status of Investment Management. *Financial Analysts Journal*, 76(2), 5-14. doi:10.1080/0015198X.2020.1734375.
- Brown, S. J., & Warner, J. B. (1985). Using Daily Stock Returns: The Case of Event Studies. *Journal of Financial Economics*, 14(1), 3-31. doi:10.1016/0304-405X(85)90042-X.
- Cheng, M., & Christiawan, Y. J. (2011). Pengaruh Pengungkapan Corporate Social Responsibility terhadap Abnormal Return. *Jurnal Akuntansi dan Keuangan*, 13(1), 24-36. doi:10.9744/jak.13.1.24-36.
- Cleophas, T. J., & Zwinderman, A. H. (2016). *SPSS for Starters and 2nd Levelers* (2nd ed.). Switzerland: Springer International Publishing. doi:10.1007/978-3-319-20600-4.
- Cloninger, D. O., & Waller, E. R. (2000). Corporate Fraud, Systematic Risk, and Shareholder Enrichment. *Journal of Socio-Economics*, 29(2), 189-201. doi:10.1016/S1053-5357(00)00061-5.
- Cox, R. A. k., & Weirich, T. R. (2002). The Stock Market Reaction to Fraudulent Financial Reporting. *Managerial Auditing Journal*, 17(7), 374-382. doi:10.1108/02686900210437471.
- Davidson, W. N., & Worrell, D. L. (1988). The Impact of Announcements of Corporate Illegalities on Shareholder Returns. *Academy of Management Journal*, 31(1), 195-200. doi:10.5465/256506.
- Davidson, W. N., Worrell, D. L., & Lee, C. I. (1994). Stock Market Reactions to Announced Corporate Illegalities. *Journal of Business Ethics*, 13(12), 979-987. doi:10.1007/BF00881667.
- du Toit, E., Hall, J. H., & Pradhan, R. P. (2018). The Day-of-the-week Effect: South African Stock Market Indices. *African Journal of Economic and Management Studies*, 9(2), 197-212. doi:10.1108/AJEMS-07-2017-0163.
- Eliyawati, W. Y., Hidayat, R. R., & Azizah, D. F. (2014). Penerapan Model GARCH untuk Menguji Pasar Modal Efisien di Indonesia. *Jurnal Administrasi Bisnis (JAB)*, 7(2), 1-10.
- Eryigit, M. (2019). Short-Term Performance of Stocks After Fraudulent Financial. *Journal of Financial Crime*, 26(2), 464-476. doi:10.1108/JFC-11-2016-0076.
- Fadhil, H. (2019). *KPK Tetapkan 2 Tersangka Kasus Korupsi Rp 39 M Jembatan Bangkinang*. Detik.com. <https://news.detik.com/berita/d-4467697/kpk-tetapkan-2-tersangka-kasus-korupsi-rp-39-m-jembatan-bangkinang>.
- Fama, E. F. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *The Journal of Finance*, 25(2), 383-417. doi:10.2307/2325486.
- Feroz, E. H., Park, K., & Pastena, V. S. (1991). The Financial and Market Effects of the SEC's Accounting and Auditing Enforcement Releases. *Journal of Accounting Research*, 29, 107-142. doi:10.2307/2491006.
- Francis, J., Philbrick, D., & Schipper, K. (1994). Shareholder Litigation and Corporate Disclosures. *Journal of Accounting Research*, 32(2), 137-164. doi:10.2307/2491279.
- Ghafoor, A., Zainudin, R., & Mahdzan, N. S. (2019). Corporate Fraud and Information Asymmetry in Emerging Markets: Case of Firms Subject to Enforcement Actions in Malaysia. *Journal of Financial Crime*, 26(1), 95-112. doi:10.1108/JFC-11-2017-0107.
- Groening, C., & Kanuri, V. K. (2016). Investor Reactions to Concurrent Positive and Negative Stakeholder News. *Journal of Business Ethics*, 149(4), 833-856. doi:10.1007/s10551-016-3065-2.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate Data Analysis*

- (In Multiva). London: Pearson Education Limited.
- Hartono, J. (2017). *Teori Portofolio dan Analisis Investasi*. Tangerang Selatan: Universitas Terbuka.
- Hatta, R. T. (2019). *10 Peristiwa Tanah Air yang Jadi Sorotan Dunia pada 2019*. Liputan6.com. <https://www.liputan6.com/global/read/4144324/10-peristiwa-tanah-air-yang-jadi-sorotan-dunia-pada-2019>.
- Helanda, A. P., & Suryani, A. W. (2020). The Phenomenon of The Month of Sela in The Indonesian Capital Market. *AKRUAL: Jurnal Akuntansi*, *12*(1), 65-79. doi:10.26740/jaj.v12n1.p65-79.
- Indonesia, R. (2016). *Peraturan Pemerintah Republik Indonesia Nomor 72 Tahun 2016*. [https://jdih.bumn.go.id/lihat/PP Nomor 72 Tahun 2016](https://jdih.bumn.go.id/lihat/PP%20Nomor%2072%20Tahun%202016).
- Kalayil, T., Tyagi, S., Khatun, M., & Siddiqui, S. (2019). A Risk-Sensitive Momentum Approach to Stock Selection. *Economic Annals*, *64*(220), 61-83. doi:10.2298/EKA1920061K.
- Kellogg, R. L. (1984). Accounting Activities, Security Prices, and Class Action Lawsuits. *Journal of Accounting and Economics*, *6*(3), 185-204. doi:10.1016/0165-4101(84)90024-7.
- Kirmani, A., & Rao, A. R. (2000). No Pain, No Gain: A Critical Review of the Literature on Signaling Unobservable Product Quality. *Journal of Marketing*, *64*(2), 66-79. doi:10.1509/jmkg.64.2.66.18000.
- Kompasiana. (2020). *Daftar Alexa Rank Website di Indonesia, Rangking Berapakah Kompasiana?* Kompasiana.com. https://www.kompasiana.com/rakyatjelata/5e4ffbe2d541df2e352889f2/daftar-alexarank-website-di-indonesia-rangking-berapakah-kompasiana?page=3&page_images=1.
- Kosasih, D. T. (2021). *BEI Catat Kapitalisasi Pasar Saham Emiten BUMN Naik 105 Persen*. Liputan6.com. <https://www.liputan6.com/saham/read/4545652/bei-catat-kapitalisasi-pasar-saham-emiten-bumn-naik-105-persen>.
- Krisjanuar, I. G. (2019). *Dugaan Korupsi Libatkan Petinggi Bank BTN, Erick Thohir Copot 2 Komisaris dan 1 Direksi*. Kompas.com. <https://www.kompas.tv/article/59986/dugaan-korupsi-libatkan-petinggi-bank-btn-erick-thohir-copot-2-komisaris-dan-1-direksi>.
- Lee, S., & Connolly, D. J. (2010). The Impact of IT News on Hospitality Firm Value Using Cumulative Abnormal Returns (CARs). *International Journal of Hospitality Management*, *29*(3), 354-362. doi:10.1016/j.ijhm.2009.08.007.
- Liputan6.com. (2019). *"Orang Dalam" Ungkap Pelaku Penilapan Rp124 Miliar Uang Nasabah BNI Ambon*. Liputan6.com.
- Liu, D. C., & Liu, C. Y. (2015). The Source of Stock Return Fluctuation in Taiwan. *Quarterly Review of Economics and Finance*, *61*, 77-88. doi:10.1016/j.qref.2015.11.006.
- Mackinlay, A. C. (1997). American Economic Association Event Studies in Economics and Finance. *Journal of Economic Literature*, *35*(1), 13-39. <http://www.jstor.org/stable/2729691>.
- Murphy, D. L., Shrieves, R. E., & Tibbs, S. L. (2009). Understanding the Penalties Associated with Corporate Misconduct: An Empirical Examination of Earnings and Risk. *Journal of Financial and Quantitative Analysis*, *44*(1), 55-83. doi:10.1017/S0022109009090036.
- Najam, N. U. S., & Mehmood, A. M. (2019). The Economic Cost of Terrorism and Natural Disasters: A Deeper Analysis of the Financial Market Markets of Pakistan.

MPRA: Munich Personal RePEc Archive.

- Peón, D., Antelo, M., & Calvo, A. (2019). A Guide on Empirical Tests of the EMH. *Review of Accounting and Finance*, 18(2), 268–295. doi:10.1108/RAF-02-2016-0031.
- Perdana, D. (2019). Kepemilikan Pemerintah dan Struktur Modal dalam Konteks Institusional BUMN Indonesia. *Jurnal Riset Akuntansi dan Keuangan*, 7(3), 477–490. doi:10.17509/jrak.v7i3.17758.
- Peterson, P. P. (1989). Event Studies: A Review of Issues and Methodology. *Quarterly Journal of Business and Economics*, 28(3), 36–66.
- Puah, C. -H., & Liew, S. W. S. (2011). White-Collar Crime and Stock Return: Empirical Study from Announcement Effect Samuel. *MPRA (Munich Personal RePEc Archive)*, 1–33.
- Qian, W., Suryani, A. W., & Xing, K. (2020). Does Carbon Performance Matter to Market Returns During Climate Policy Changes? Evidence from Australia. *Journal of Cleaner Production*, 259, 1–10. doi:10.1016/j.jclepro.2020.121040.
- Rachman, D. A. (2019). *KPK Tangkap Direktur Krakatau Steel*. Kompas.com. <https://nasional.kompas.com/read/2019/03/22/22411451/kpk-tangkap-direktur-krakatau-steel>.
- Rao, S. M. (1997). The Effect of Announcement of Bribery, Scandal, White Collar Crime, and Illegal Payment on Returns to Shareholders. *Journal of Financial and Strategic Decisions*, 10(3), 55–62.
- Rosadi, D. (2012). *Ekonometrika & Analisis Runtun Waktu Terapan dengan Eviews*. Yogyakarta: CV Andi Offset.
- Sahputra, K., & Diantimala, Y. (2018). Analisis Dampak Peristiwa Divestiture Announcement dan Financial Statement Restatement terhadap Market Reaction pada Perusahaan yang Terdaftar di Bursa Efek Indonesia Tahun 2010-2015. *Jurnal Ilmiah Mahasiswa Ekonomi Akuntansi (JIMEKA)*, 3(4), 638–649.
- Sane, R. (2019). Stock Market Trading in the Aftermath of an Accounting Scandal. *Emerging Markets Review*, 40, 1–21. doi:10.1016/j.ememar.2019.100627.
- Smith, K. T., Jones, A., Johnson, L., & Smith, L. M. (2019). Examination of Cybercrime and Its Effects on Corporate Stock Value. *Journal of Information, Communication, and Ethics in Society*, 17(1), 42–60. doi:10.1108/JICES-02-2018-0010.
- Song, C., & Han, S. H. (2017). Stock Market Reaction to Corporate Crime: Evidence from South Korea. *Journal of Business Ethics*, 143(2), 323–351. doi:10.1007/s10551-015-2717-y.
- Sorescu, A., Warren, N. L., & Ertekin, L. (2017). Event Study Methodology in the Marketing Literature: An Overview. *Journal of the Academy of Marketing Science*, 45(2), 186–207. doi:10.1007/s11747-017-0516-y.
- Spence, M. (1978). Job Market Signaling. Uncertainty in *Economics*, 87(3), 281–306. doi:10.1016/B978-0-12-214850-7.50025-5.
- Strachan, J. L., Smith, D. B., & Beedles, W. L. (1983). The Price Reaction to (Alleged) Corporate Crime. *Financial Review*, 18(2), 121–132. doi:10.1111/j.1540-6288.1983.tb00140.x.
- Sugeng, B. (2017). *Manajemen Keuangan Fundamental*. Yogyakarta: Deepublish.
- Supragita, I. (2011). Reaksi Pasar Modal atas Peristiwa Pengumuman Pengunduran Diri Menteri Keuangan dari Kabinet Indonesia Bersatu. *FE Universitas Bengkulu*.
- Suryani, A. W., & Pertiwi, K. D. (2021). Lombok's Tsunami and Stock Abnormal Returns. *Accounting Analysis Journal*, 10(1), 1–8. doi:10.15294/aaaj.v10i1.42584.
- Takmaz, S., & Keleş, E. M. (2017). Do Stock Prices React to Illegal Corporate Behaviors The Turkish Case. *Journal of Business Research - Turk*, 9(4), 245–258.

doi:10.20491/isarder.2017.330.

- Talwar, P. P. (1993). A Simulation Study of Some Non-Parametric Regression Estimators. *Computational Statistics & Data Analysis*, 15(3), 309-327. doi:10.1016/0167-9473(93)90259-V.
- Tandelilin, E. (2010). *Portofolio dan Investasi: Teori dan Aplikasi*. Yogyakarta: Kanisius.
- Tay, L.-M., Puah, C.-H., Brahmama, R. K., & Abdul Malek, N. I. (2016). The Effect of White Collar Crime Announcement on Stock Price Performance: Evidence from Malaysian Stock Market. *Journal of Financial Crime*, 23(4), 1126-1139. doi:10.1108/JFC-03-2015-0016.
- Utama, C. A., & Hapsari, L. (2012). Jenis Industri, Kepemilikan Saham Asing, dan Reaksi Pasar Modal akibat Serangan Bom Teroris. *Jurnal Akuntansi dan Keuangan Indonesia*, 9(2), 100-116. doi:10.21002/jaki.2012.07.
- Widarjono, A. (2018). *Ekonometrika: Pengantar dan Aplikasinya Disertai Panduan Eviews* (Edisi Kelima). UPP STIM YKPN.
- Wiyono, G. (2011). *Merancang Penelitian Bisnis dan Alat Analisis SPSS 17.0 & Smartpls 2.0*. UPP STIM YKPN.
- Xiong, F., Chapple, L., & Yin, H. (2018). The Use of Social Media to Detect Corporate Fraud: A Case Study Approach. *Business Horizons*, 61(4), 623-633. doi:10.1016/j.bushor.2018.04.002.
- Yasar, B., Martin, T., & Kiessling, T. (2020). An empirical test of signalling theory. *Management Research Review*, 43(11), 1309-1355. doi:10.1108/MRR-08-2019-0338.
- Zeidan, M. J. (2013). Effects of Illegal Behavior on the Financial Performance of US Banking Institutions. *Journal of Business Ethics*, 112(2), 313-324. doi:10.1007/s10551-012-1253-2.