An analysis of Fama and French three factor model in market reaction to Indonesia presidential election in 2019

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Abstract This study reveals stock market reaction to Indonesia presidential election in 2019 using Fama and French Three Factor Model with accounting dependent variable being Average Abnormal Return (AAR) in addition to Earning Per Share (EPS), Debt to Equity ratio (DER), Return on Assets (ROA), and Return on Equity (ROE) as independent variables. The research population was all stocks of the companies registered in the Indonesia Stock Exchange in 2019 with their dividend announcement. The characteristic of the observed object was stock price measured by return, abnormal return and average abnormal return during 111-day-observation comprising of 11 days of windows period observation and 100 days of estimation period. The data from 101 companies as samples determined through the purposive sampling technique were analyzed using SPSS software version 23, which represented all industrial sectors in Indonesia Stock Exchange. The measure and analysis of companies stocks concluded that a gradual rise in AAR values was witnessed in all stock portfolios during the announcement date.

1. Introduction
The phenomenon of how the stock market reacts to the Indonesia presidential election in 2019 analyzed with Fama and French Three Factor Model is this study's crucial background due to some unanswered questions and inconsistent research results related to this phenomenon.

Indonesia organized a gigantic and crucial event on Wednesday 17 April 2019. That day, the people of Indonesia visited the ballot boxes for the presidential and legislative elections. It was a huge event, not only from a logistical perspective (for the first time in Indonesian history the presidential and legislative elections were held simultaneously) but also because the results are believed to have crucial and far-reaching consequences for the direction of the world's third largest democracy (Indonesia Investmens, 2019). The t-statistic test shows that for all the four general elections (100%) namely 1997, 2002, 2007 and 2013, abnormal returns were statistically insignificant. The Cumulative abnormal returns for the 1997 and 2007 general elections were found to be statistically significant while the cumulative abnormal returns for the 2002 and 2013 general elections were established to be statistically insignificant at 5% level of significance (James, Duncan and Hellen, 2015). The results will help investors, policy-makers and academics to instill thoughts on the relationship between the presidential elections and stock price movements (Abhisek and Shreya, 2016). However, the political cycle and the variance of volatility are found to be significantly related. This suggests that investors do adjust their portfolio to reflect their views towards political factors. For example, the post-election 20-day period is more volatile than the preelection 20-days period due to investors adjust their pre-election expectation to the actual election result (Evelita and Leow, 2015).

The research result showed that during the 2014 presidential election, there was bad news in several days which caused the existence of negative abnormal returns. However, there were also a few other days that showed the occurrence of positive response which produced a positive abnormal return (Teddy, 2015). It can be concluded that there are abnormal returns during the 2008 and 2016 U.S. Presidential election and 2009 and 2017 inauguration day in the Indonesian Stock Market. However, there are no abnormal returns differences before and after the event (Evelyn and Sautma, 2018).

This study substantially contributes to research using the computation method of stock market reaction to Indonesia presidential election on 17\textsuperscript{th} April 2019, specifically measured in Fama and French
Three Factor Model. Moreover, the election was a political event drawing national and global attention, leading to the response of the Indonesia Stock Exchange with its further result being abnormal return for the investors.

2. Literature Review

2.1 Portfolio Theory

The portfolio theory, as written by Harry Markowitz in 1952, has advanced since the emerge of the efficient and optimum way of investment. It is called portfolio theory due to its financial estimation in the form of marketable security based on the fact that capital owners invest in a variety of marketable securities to receive the return and avoid risk. In 1964, Sharpe developed Markowitz model in his article Capital Asset Prices: A Theory of Market Equilibrium published in Journal of Finance, followed by The Valuation of Risk Asset and the Selection of Risk Investment in Stock Portfolio and Capital Budgets Statistics written by Lintner in 1965 and published in Journal of Economics and. Also, in 1966 Journal of Econometrica published an article of Mossin, Equilibrium in Capital Asset Market. These three articles contribute to the portfolio theory or balance modal market theory which defines investment risk in stock as standard investment and profit rate.

2.2 Dividend Signaling Theory

Dividend Signaling Theory, a theory first proposed by Bhattacharya in 1979, suggests that the announcement of dividend change leads to stock price reaction and information on paid dividends is considered as a signal of a company's prospect. This assumption occurs as a result of asymmetric information between the manager and investor, leading the investor to apply dividend policy for the signal of the prospect. Therefore, a dividend increase is seen as a positive signal of a bright prospect of a company which correlates to a rising stock price as the positive reaction; in contrast, the stock market reacts negatively if there is an announcement of a dividend decrease.

2.3 Return and risk of Portfolio

It is essential to measure portfolio return and risk to single security while the return and risk of all securities are more crucial for portfolio managers. Both realized return and expected return for a portfolio are the weighted averages of the return of all single securities, unlike portfolio return, the risk of a portfolio is not equal to the weighted average of the risk of all the single securities and can be lower than that of every single security.

According to Hartono (2003), the return is gained from an investment, which is one of the leading factors motivating investors to invest, and a retainer for the brave investment and risk avoidance. It is expected that there is a positive relationship between return and risk, meaning the higher the risk, the greater the return is achieved, and vice versa.

Due to the importance of stock price in determining the received return, the change in stock price and return is excitingly studied (Ang, 1997) with major factors affecting stock return being the return on assets, return on equity, debt to equity ratio, and earnings per share. Besides, Lev and Ohlson (1995) suggested positive accounting theory contributes to the relationship between accounting profit as well as dividend distribution and return.

2.4 Abnormal Return

Abnormal return reflects a valuation gap by subtracting the expected return from the actual return, is, therefore, relevant to measure market reaction to an announcement. The abnormal return, according to Hartono (2003), is calculated as follows:

\[ AR_{it} = R_{it} - E(R_{it}) \]

Where:

- \( AR_{it} \) : abnormal return of share-i for day-t
- \( R_{it} \) : the actual return of share-i for day-t
- \( E(R_{it}) \) : expected return of share-i for day-t

Abarbanell and Bushee (1998) concluded that accounting information can be used to predict future abnormal returns. Also, research by Was Al Troudi and Maysa’a Milhem (2013), pointing out the positive and significant relation between Earning per Share (EPS) and stock price, followed by the research carried out by Blandon, Blasco and Bosch (2011) showing that all company population receiving dividend use anomaly ex-dividend date.
2.5 Event Study

Event study analysis market reaction to an event, the information of which is published as an announcement (Hartono, 2003). If the announcement contains information, the market is expected to immediately react by changing price among related securities. This reaction can be measured using either return as price change value or abnormal return. A study observing the impact of an announcement on security price is called event study (Tandelilin, 2010).

Peterson (1989) claimed that an event study is an observation of the stock price movement to find whether abnormal return occurs as a result of a particular event.

2.6 Fama and French Three Factor Model

According to the Capital Asset Pricing Model (CAPM), the only factor affecting share return is a market risk. Return asset that free of risk, denoted by $R_f$, opens some possibilities for some investors to distribute their wealth over the efficient portfolio and the free-risk asset. This leads to the following equation (Harald, 2004)

$$E(R_p) = xR_f + (1-x)E(R_m)$$  \hspace{1cm} (1)

where $x$ is the proportion of wealth invested at free-risk asset whereas the risk assets is expressed by

$$\sigma_p = (1-x)\sigma_M$$ \hspace{1cm} (2)

where

- $E(R_p)$ = expected return portfolio
- $E(R_m)$ = expected return of market portfolio
- $R_f$ = profit level of free-risk
- $\sigma_M$ = deviation standard deviation of return market-portfolio
- $\sigma_p$ = standard deviation of risk portfolio
- $x$ = proportion of wealth invested at free-risk asset

Equation (2) gives

$$x = 1 - \frac{\sigma_p}{\sigma_M}$$

If these equations substitute into equation (1), this results

$$E(R_p) = \left(1 - \frac{\sigma_p}{\sigma_M}\right)R_f + \left(1 - \left(1 - \frac{\sigma_p}{\sigma_M}\right)E(R_m)\right)$$

$$= \left(1 - \frac{\sigma_p}{\sigma_M}\right)R_f + \frac{\sigma_p}{\sigma_M}E(R_m)$$

$$= R_f - \frac{\sigma_p}{\sigma_M}R_f + \frac{\sigma_p}{\sigma_M}E(R_m)$$

$$= R_f + \frac{\sigma_p}{\sigma_M}(-R_f + E(R_m))$$

$$= R_f + \left(\frac{E(R_m) - R_f}{\sigma_m}\right)\sigma_p,$$

which is

$$E(R_p) = R_f + \left(\frac{E(R_m) - R_f}{\sigma_M}\right)\sigma_p$$ \hspace{1cm} (3)
2.6.1 Security Market Line (SML)

By applying straight line equation 
\[ y = a + bX \]  

on Fig. 2, the two axes are \( Y = E(R_i) \) and \( X = \beta_i \). By substituting this \( X \) and \( Y \) into (4), the straight line equation becomes 
\[ E(R_i) = a + b\beta_i. \]  

Two values of \( R_f \) will be determined from the following two points.

a. The first point is \( \beta_i = 0 \) with \( E(R_i) = R_f \). So 
\[ R_f = a + b\beta_i \]  
\[ R_f = a + b0 \]  
\[ R_f = a \]

b. The second point is \( M \) with \( \beta_i = 1 \) and \( E(R_m) = E(R_m) \). So 
\[ E(R_m) = a + b\beta_i \]  
\[ E(R_m) = a + b1 \]  
\[ E(R_m) = a + b \]  
\[ E(R_m) = R_f + b \]  
\[ b = E(R_m) - R_f \]

c. In other words, substituting \( a = R_f \) and \( b = E(R_m) - R_f \) results in 
\[ E(R_i) = R_f + (E(R_m) - R_f)\beta_i \]

Capital Asset Pricing Model (CAPM) aims to assess every asset by considering the problem of equilibrium. In this problem, every asset is controlled and since the only risk portfolio on trade is \( M \), this portfolio must include all assets. This means \( M \) is the market portfolio and holds all assets proportional to its market capitalization. By applying Tobin’s Two Modal theorems, investors may choose a portfolio with optimal risk by the point at the boundary of efficient free-asset or choose equilibrium between a free-risk asset or risk portfolio. The decision option needs to consider the risk part of the portfolio because the value of every asset should be determined as the two options are independent, and this is reflected by the equations 
\[ E(R_p) = x(E(R_i)) + (1 - x)E(R_m) \]  

\[ \sigma_p = [x^2\sigma_i + (1-x)^2\sigma_m^2 + 2x(1-x)\sigma_{im}]^{1/2} \]

By letting \( x \) varies, all efficient portfolios can be obtained and the portfolios consist of risk asset \( i \) and market portfolio in the space \( E(R_i) - \sigma_p \). The Markowitz efficient frontier is the efficient set of portfolios, as seen in the following figure 2

![Security Market Line (SML)](image)
It can be seen that the primary coefficient of the tangent line at the efficient boundary must at the slope direction of the market portfolio:

$$\frac{\partial E(R_p)}{\partial \sigma_p} = \frac{E(R_M) - R_f}{\sigma_M}$$  \hspace{1cm} (8)

By considering functional relation at the (1.8) equation, the following equation

$$\frac{\partial E(R_p)}{\partial \sigma_p} = \frac{\partial E(R_p)}{\partial x} \cdot \frac{\partial x}{\partial \sigma_p}$$  \hspace{1cm} (9)

Is obtained. The two derivatives of (1.9) can be derives as follows

$$\frac{\partial E(R_p)}{\partial x} = E(R_i) - E(R_M)$$  \hspace{1cm} (10)

$$\frac{\partial \sigma_p}{\partial x} = \left[ x^2 \sigma_i + (1 - x)^2 \sigma^2_M + 2x(1 - x)\sigma_{IM} \right]^{1/2}$$

$$= \frac{1}{2} \left[ x^2 \sigma_i + (1 - x)^2 \sigma^2_M + 2x(1 - x)\sigma_{IM} \right]^{-1/2}$$

$$\frac{\partial \sigma_p}{\partial x} = 2x \sigma_i - 2(1 - x)\sigma^2_M + 2(1 - 2x)\sigma_{IM}$$

$$\frac{\partial \sigma_p}{\partial x} = \frac{2\sqrt{\sigma_p^2}}{2\sigma_p} = \frac{2x \sigma_i - 2(1 - x)\sigma^2_M + 2(1 - 2x)\sigma_{IM}}{2\sigma_p}$$

$$\frac{\partial \sigma_p}{\partial x} = \frac{x \sigma_i - (1 - x)\sigma^2_M + (1 - 2x)\sigma_{IM}}{\sigma_p}$$

$$\frac{\partial \sigma_p}{\partial x} = \frac{x \sigma_i - \sigma^2_M + x \sigma^2_M + \sigma_{IM} - 2x \sigma_{IM}}{\sigma_p}$$

$$\frac{\partial \sigma_p}{\partial x} = \frac{x(\sigma_i + x \sigma^2_M - 2\sigma_{IM}) - \sigma^2_M + \sigma_{IM}}{\sigma_p}$$  \hspace{1cm} (11)

So,

$$\frac{\partial E(R_p)}{\partial \sigma_p} = \frac{E(R_i) - E(R_M)}{x \sigma_i - (1 - x)\sigma^2_M + (1 - 2x)\sigma_{IM}}$$

$$\frac{E(R_i) - E(R_M)}{x \sigma_i - (1 - x)\sigma^2_M + (1 - 2x)\sigma_{IM}}$$

$$= \frac{x \sigma_i - (1 - x)\sigma^2_M + (1 - 2x)\sigma_{IM}}{E(R_i) - E(R_M)\sigma_p}$$

$$= \frac{x \sigma_i - \sigma^2_M + x \sigma^2_M + \sigma_{IM} - 2x \sigma_{IM}}{E(R_i) - E(R_M)\sigma_p}$$

The market portfolio includes all assets so the proportion of $x$ in asset redundancy im $P (\sigma_p = \sigma_M)$ portfolio at its equilibrium must be at the zero points (consider investors) and for $x = 0$, the point M is obtained.

$$\frac{\partial E(R_p)}{\partial \sigma_p} = \frac{E(R_i) - E(R_M)\sigma_p}{\sigma_M - \sigma^2_M}$$  \hspace{1cm} (12)
If $\sigma_P = \sigma_M$ then

$$\frac{\partial E(r_p)}{\partial \sigma_P}(M) = \frac{(E(R_p) - E(R_M))\sigma_M}{\sigma_M - \sigma_M^2}$$

(13)

and from (8)

$$\frac{(E(R_p) - E(R_M))\sigma_M}{\sigma_M - \sigma_M^2} = \frac{E(R_M) - R_f}{\sigma_M}$$

(14)

$$E(R_i)\sigma_M^2 - E(R_M)\sigma_M^2 = (E(R_M) - R_f)\left(\sigma_M - \sigma_M^2\right)$$

$$E(R_i)\sigma_M^2 = (E(R_M) - R_f)\sigma_M + R_f\sigma_M^2$$

Simplifying

$$E(R_i) = \frac{(E(R_M) - R_f)\sigma_M + R_f\sigma_M^2}{\sigma_M^2}$$

(15)

where

$$\beta_i = \frac{\sigma_M}{\sigma_M^2}$$

(16)

Therefore, the characteristic of CAPM is

$$E(R_i) = R_f + \beta_i (E(R_M) - R_f)$$

(17)

In Capital Asset Pricing Model (CAPM) method, the only value indicator of return is (beta) risk premium and the theory developed by Fama and French involving the additional two variables needed to measure share return possessed by investors. The two additional variables are size and book to market equity (Fama and French, 1996).

The two additional variables led to an assumption by some researchers that this model is the most efficient to be used in computing return. The existence of additional Small Minus Big (SMB) factor and High Minus Low (HML) on CAPM leads to three independent variables known as Fama-French Three-Factor Model as follows

$$E(R_i) = R_f + \beta_i (E(R_M) - R_f) + SMB + HML$$

(18)

where

- $E(R_i)$: Expected return security $i$
- $R_f$: profit level of free-risk
- $\beta_i$: regression coefficient
- $E(R_M)$: Expected return of market portfolio
- $SMB$: Small Minus Big, the difference between return portfolio of small share (small firm) and return portfolio of big share (big firm)
- $HML$: High Minus Low, the difference return portfolio of shares booked to high ratio market with return portfolio of shares booked to low ratio market

$$SMB = \frac{(s - M)^2 + (b - M)^2}{\frac{3}{2}}$$

and

$$HML = \frac{(s - M)^2 + (b - M)^2}{\frac{3}{2}}$$

3. Research Framework and Hypothesis

3.1 Empirical framework

The framework of this research is established with Fama and French Three Factor Model as follows:
Figure 3 The research design for Fama and French Three Factor Model

Where:
- BI : Bank of Indonesia
- BEI : Indonesia Stock Exchange
- IHSG : Composite Stock Price Index
- SBI : Bank Indonesia Certificates
- VAR ER : Variance Error
- RET REA : Return Realisation
- RET EXP : Return Expectation
- SD : Standard Deviation
- EPS : Earning Per Share
3.2 Hypothesis

3.2.1 Earning Per Share (EPS)

The objective of this Standard is to prescribe principles for the determination and presentation of earnings per share, to improve performance comparisons between different entities in the same reporting period and between different reporting periods for the same entity. Even though earnings per share data have limitations because of the different accounting policies that may be used for determining ‘earnings’, a consistently determined denominator enhances financial reporting. The focus of this Standard is on the denominator of the earnings per share calculation (IAS 33).

Earning per share (EPS) is a comparison between net income after tax and the number of outstanding shares. EPS represents company profitability shown in each share. Profit per share is closely monitored and followed by market share participants since it reflects the company values. Investors consider the high EPS as a better prospect of a company as it is believed that stock value depends on the company’s ability to generate profit per share.

EPS is defined as the expectation of future EPS from the view of investors. The calculation of market EPS is compatible with stock prices. Besides, market EPS increases with the exercise prices of warrants. On the other hand, market EPS decreases with the number of warrants outstanding and the earnings volatility.

EPS is a comparison between net income after tax during a fiscal year and the number of outstanding shares (Ang, 1977). The relation of the income from investment by shareholders is noticed by community finance. The analysis is needed to find the main measurements representing the performance of the company for investor interest.

From the above explanation, it can be concluded that hypotheses are as follows:

H1: Earning Per Share (EPS) affected the stock return of the companies listed on BEI before and after the presidential election

3.2.2 Return on Assets (ROA)

Ang (1997) stated that return on assets (ROA) is a ratio of net income after tax, which is used to measure company effectiveness in producing return by managing its assets. ROA is one of the most crucial rentability or profitability ratios to predict price or stock return of a public company and used to measure company effectivity in generating profit by employing its assets. Moreover, ROA is a ratio of net income after tax to total assets in which the higher the ROA is, the more excellent performance of a company gives due to the higher return. The ratio indicates that the higher the ROA, the more effectively and productively the company utilizes its assets, which means increasing company profitability achieved by the shareholders (Husnan, 1998). In other words, ROA reflects how well a company performs in terms of net income generating from its assets.

Besides, Ulupui (2005) claimed that the higher the ROA, the more effectively the company utilizes its assets to produce net income after tax, which means the higher the ROA, the more effective the company’s performance. This creates a more appealing company, attracting its investors’ more interest to invest owing to the higher rate of return which experiences growth in the stock market as well. In other words, ROA positively affects the stock price. The rising stock price leads to a growth in return (in this case capital gain). Rational investors invest in companies with high profitability to boost stock return they can achieve.

From the above explanation, it can be concluded that hypotheses are as follows:

H2: Return on assets (ROA) affected the stock return in companies listed on the Indonesia Stock Exchange before and after the presidential election in 2019

3.2.3 Debt to Equity Ratio (DER)

Debt to Equity Ratio (DER) is a ratio of solvability to measure company performance in paying off short-term and long-term debt by comparing the short-term debt to total equity. Also, DER is a comparison of total debt to total shareholders’ equity of a company. The total debt is total liabilities
while the total shareholders' equity is a company's total assets. This ratio indicates the proportion of total debt to total assets of the company. According to Ang (1997), the higher the DER, the lower the rate of return; the higher the risk the investor takes since the higher debt, the higher interest which results in the declining return. The signal of change in DER leads to the market reaction which can be measured using stock return as the value of price change.

From the above explanation, it can be concluded that hypotheses are as follows:

**H₃**: Debt to Equity Ratio (DER) affected the stock return in companies listed on the Indonesia Stock Exchange before and after the presidential election in 2019

### 3.2.4 Return on Equity (ROE)

Return on Equity effectively measures how much profit a company can make from the capital investors use in business and can be used from time to time to evaluate changes in the company's financial situation. ROE is the company's annual net income after tax (not including non-recurring items), divided by the average shareholders' equity. Net Income is the amount of profit the company receives after all costs and taxes are deducted from income. Shareholders' equity is the value that has been invested by the owner of the company that has not been paid in dividends (Jensen, 2016).

Return on equity (ROE) is a ratio of net income after tax to total own assets comprising of owner’s assets, undivided profit, and other reserves of the company. The ROE shows company effectiveness in producing net income using its assets, and the high ROE indicates how effective the company is in managing its assets to produce net income. The improvement in investors' expectations leads to the increasing interest in a company, and if there is a growth in interest, the demand for market stock rises, resulting in increasing stock price, followed by increasing capital gain.

From the above explanation, it can be concluded that hypotheses is as follows:

**H₄**: Return on Equity (ROE) affected the stock returns in companies listed on the Indonesia Stock Exchange before and after the presidential election in 2019

**H₅**: accounting information (EPS, ROA, DER and ROE simultaneously) affected the stock returns in companies listed on Indonesia Stock Exchange before and after the presidential election in 2019

### 4. Research Method

#### 4.1 Research Site and Time

The research was carried out in all listed companies on the Indonesia Stock Exchange in 2019, observed during five months from January to May 2019.

#### 4.2 Population, Sample and Sampling Technique

The population in this research involved all listed and published companies on the Indonesia Stock Exchange (BEJ), Bank of Indonesia, Yahoo Finance, and Financial Service Authority (OJK). The sample was drawn using a non-probability sampling method which was a purposive sampling technique that selected the data based on particular criteria called judgment sampling, a sampling technique with certain consideration such as sample characteristics that were already known.

#### 4.3 Types and Sources of Data

This research applied cross-section data and the secondary data used consisted of:

i. all companies listed on the Indonesia Stock Exchange in the year 2019 and having fully equipped and reliable financial data

ii. companies with active stocks in Indonesian Stock Exchange in the year 2019

iii. companies publish financial statement subsequently during 2019

iv. companies announcing dividend and their announcement dates known during 2019

#### 4.4 Data Collection Method

The data used in this research was secondary data including financial data and ratio (EPS, DER, ROA and ROE), dividend announcement with their announcement date known, daily data comprising of stock price of listed companies used as samples, IHSG, SBI, along with data from mass media that is, journal and the internet.

#### 4.5 Research Variable and Operational Definition

#### 4.6 Research Variable
Hypotheses on the relation of variable earning per share (EPS), debt to equity ratio (DER), return on assets (ROA) and return on equity (ROE) to stock abnormal return are examined using multiple regression as follows:

\[ Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon \]

Where:
- \( Y \): abnormal return Fama and French
- \( \alpha \): constants
- \( \beta_1, \beta_2, \beta_3, \beta_4 \): regression coefficients
- \( X_1 \): EPS
- \( X_2 \): DER
- \( X_3 \): ROA
- \( X_4 \): ROE
- \( \varepsilon \): residual

Fama and French Three Factor Model are defined as:

\[ E(R_i) = R_f + \beta_1(E(R_m) - R_f) + SMB + HML \]

Where:
- \( E(R_i) \): Expected return security i
- \( R_f \): profit level of free-risk
- \( \beta_1 \): regression coefficient
- \( E(R_m) \): Expected return of market portfolio
- \( SMB \): small Minus Big, the difference between return portfolio of small share (small firm) and return portfolio of big share (big firm).
- \( HML \): High Minus Low, the difference return portfolio of shares booked to high ratio market with return portfolio of shares booked to low ratio market

4.6.1 Earnings Per Share (EPS)
Earning per share (EPS) is the ratio between net income after tax and the number of outstanding shares. EPS represents company profitability shown in each share. According to Ang (1977), EPS is a comparison between net income after tax per book and the number of issued shares.

4.6.2 Debt to Equity Ratio
Debt to equity ratio (DER) is a solvability ratio measuring company performance in paying off short-term and long-term debt by comparing short-term debt to total equity. The higher Debt to Equity Ratio (DER), the lower return rate (Ang, 1977).

4.6.3 Return on Assets (ROA)
Ang (1997) indicated that return on assets (ROA) is a ratio of net income after tax to total equity, which is used to measure company effectiveness in producing return by managing the asset. ROA is one of the most crucial rentability or profitability ratios to predict price or stock return of a public company.

4.6.4 Return on Equity (ROE)
Return on equity (ROE) is a ratio of net income after tax to total own assets comprising of owner’s assets, undivided profit, and other reserves of the company. The improvement in ROE leads to the rising stock price, and the high ROE shows how efficient the company is in managing its assets to produce a return for shareholders (Ang, 1997)

4.7 Research Instrument
The data in this research was collected by documentation technique, that is, typing and copying data which included earning per share (EPS), debt to equity ratio (DER), return on assets (ROA), return on equity (ROE), return before and after the presidential election in 2019, composite index listed in Indonesia Stock Exchange as well as certificate of Bank Indonesia.
4.8 Data Analyzing Technique
Regression technique was used to analyze data on the equation for the asset pricing model and examine its hypothesis as this technique could immediately conclude the effect of each independent variable used both partially and totally. Hair et al (1998) stated that regression is a statistic technique to reveal the relation between a dependent variable and independent ones. Fama and French Three Factor Model applied in this study are as follows:
1) determining the estimation period including company stocks, Composite Stock Price Index (IHSG) listed on Indonesia Stock Exchange, Bank Indonesia Certificate (SBI) during a period from January to May 2019.
2) 1-month-SBI data obtained from the monthly report of Bank Indonesia during a period from January to May 2019 and used as a proxy for the risk-free rate of return
3) IHSG data obtained from daily index closing from January to May 2019, which represented market data to measure return rate and market risk
4) Stock price data obtained from daily closing price registered on Indonesia Stock Exchange during a period from January to May 2019
5) determining realized return, expected return, standard deviation, beta, and alpha, applied in Fama and French Three Factor Model equation.

5. Conclusion
Hypothesis H1 and H2 was accepted. This study result was in line with the signaling theory, which stated a signal given by a company allowed the investors to know its financial condition. It can be concluded from this study that one of the major indicators to see a company’s prospect before and after the presidential election in 2019 was the financial condition of the company through EPS and ROA ratio. Was the condition reflected in EPS and ROA ratio maximum then the investors announcing their dividend could utilize the signal to increase the investment in companies listed on Indonesia Stock Exchange in 2019, leading to increasing the stock.
Hypothesis H3 and H4 was rejected. This study result was not in line with signaling theory as the hypothesis concluded that the effect of variable DER and ROE tended not to be considered among the investors in deciding to invest in the stock of listed companies on Indonesian Stock Exchange which announced their dividend, both before and after the presidential election in 2019. Hypothesis H5 was accepted. This study result was in line with the signaling theory, which stated a signal given by a company allowed the investors to know how significant the effect of accounting information was on the stock price. This information was used by the investors to increase their stock investment, resulting in increasing the stock price of companies listed on the Indonesian Stock Exchange, both before and after the presidential election in 2019.
Indonesian market responded to the event of the presidential election in 2019, which could be seen from the abnormal return in all companies listed on the Indonesian Stock Exchange in 2019. The average abnormal return generated before and after the voting day using statistic examination did not show a significant difference. It can be concluded that the event of the presidential election in 2019 was anticipated by Indonesian stock market participants.

6. Implication
The implication drawn out of this research is to provide constructive knowledge theoretically and practically.
1. As a practice, this study proves that the value of average abnormal return could be used to measure the effect of accounting information on stock price in Indonesia Stock Exchange in 2019
2. As a theory, this study reinforces the concept of asset pricing model, specifically Fama and French Three Factor Model showing consistency in revealing if there is information leakage in a company

7. Research Limitation
This study has potential limitations as a reference for future research. The limitations are as follows:
1. the companies used as samples represented the whole industrial sector on the Indonesia Stock Exchange in the year 2019 and had diverse characteristics, resulting in highly varied research data
2. this research examined the effect of accounting information on stock price whose dividend was announced by excluding variable the company growth
3. measurement in variable abnormal return used the effect of variable fundamental primarily influenced by the current macroeconomic condition.

8. **Suggestion**
To address the aforementioned research limitations, it is suggested that future research should:
1. use control variables in measurement for more varied characteristic data,
2. use company growth as variable measurement since investors and managers are interested in such growth as signal information from a company so that they can know the profitable prospects and expect the rate of return on investment,
3. measure variable macroeconomic movement because the Indonesia stock market is integrated with the global stock market, thus the stock index movement in the global market influences that in the Indonesia market.

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