Analysis of Factors Affecting Earnings Management
Moderated by Institutional Ownership

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Abstract: The objective of this research is to examine the empirical evidence of leverage, profitability, growth, and institutional ownership on earnings management in manufacturing companies listed in Indonesia Stock Exchange. This research used 54 listed manufacturing companies in Indonesia Stock Exchange, selected using a purposive sampling method, during the research period 2016 until 2018. Data were analyzed using multiple regression analysis. The result of the research indicates that leverage proxied by DAR has a negative significant influence on earnings management. Size and growth have a positive significant influence on earnings management. Profitability proxied by ROA and institutional ownership has no significant influence on earnings management. The results also show that institutional ownership could moderate but not significant the influence of leverage, profitability, and growth towards earnings management of manufacturing companies listed in Indonesia Stock Exchange period 2016-2018.

Keywords: Leverage, Profitability, Size, Growth, Institutional Ownership, Earnings Management.


Kata kunci: Leverage, Profitabilitas, Ukuran, Pertumbuhan, Kepemilikan Institusional, Manajemen Laba.
INTRODUCTION

One of the main indicators that investors see to make an investment decision in a company is the financial performance shown from the amount of net income generated. Information on net income presented in financial statements is important for the sustainability of the company's life. Users of financial statements often use net income information to assess whether or not the company is healthy (Umami, 2018).

The management of the company will do various ways to maintain the company's image and credibility. This condition can encourage management to set the profit figures reported so that the company's financial statements look good. This can be an earnings management practice or earnings manipulation (Umami, 2018).

(Abiprayu, 2011) explains two perspectives on why managers do earnings management, which are information perspective and opportunistic perspective. The information perspective explains earnings management as a managerial policy that demonstrates the personal expectation of the manager about the company's cash flows in the future, by leveraging the freedom of choosing, using, and altering accounting methods and procedures. The manager is considered to have a separate policy in preparing financial statements because of the flexibility in accounting standards (Ardison et al., 2012).

Meanwhile, the perspective of opportunistic explains that earnings management is a manager's behavior in deceiving financial statements users and in maximizing manager’s prosperity because the manager has more information than them. Management performance is often measured by looking at the profit generated by the company. The manager is realized by this fact, so it encourages the emergence of opportunistic behaviour to manipulate the reported net income target (Savitri, 2014).

Some factors that might can affect earnings management practices by management include leverage, profitability, firm size, company’s growth, and the roles of institutional ownership. In agency theory, management as an agent is required to optimize the owner's profit (Umami, 2018), one of the ways is by managing the assets of the company effectively and efficiently. Leverage can show how management meet funding to finance the growth of company assets. The right funding decisions will affect the amount of assets that the company has, and if managed effectively and efficiently will provide a high level of profitability for the company. This condition can encourage the practice of earnings management because management expects a benefit not only for the principal but also for him (Umami, 2018).

(Umami, 2018) found that firm size had significant influence on earnings management practices, but earnings power (profitability) and leverage had no influences. Meanwhile, (Yuliana and Trisnawati, 2015) found that the profitability, leverage, and firm size have significant influences on earnings management practices. (Debnath, 2017) and (Annisa and Hapsoro, 2017) in their researches indicate that the company's growth measured by asset growth has significant influence on earnings management practices. Instead, (Andriawan and Wijaya, 2019) found that asset growth had no significant influence. With the existence of inconsistent results in some previous research, this research was conducted to obtain empirical evidence for the influence of leverage, profitability, firm size and growth of the company for profit management practices in the company.

Leverage indicates how much debt the company has. Leverage can be measured by the amount of debt used in financing the company's assets (Debt to Assets Ratio). A high
leverage level can increase the risk of companies failing to pay its debt at maturity. High debt levels will also affect the planned financial performance targets. If the target is not achieved it will reduce the trust of external parties (stakeholders). The company's management will act opportunistically in doing earnings management so that the reported net income is higher than the targeted value (Augustia and Suryani, 2018). (Sari and Astika, 2015) in their research found that weak supervision over management would encourage high levels of leverage and a positive effect on earnings management practices.

Analysis of the company's profitability is an assessment of the company's ability to generate profit and measure the effectiveness of the company's management (Umami, 2018). Profitability can be measured by the amount of net income generated from the use of the assets owned (Return on Assets). This measurement can provide information about a company's health and can show the rate of return of an investment, so it can affect an investor’s decision making. The high level of profitability will attract investors and lenders to invest in the company. This condition can encourage the management of the company to do earnings management to raise the profitability level of the company.

Firm size is a value that indicates the size of a company. Firm size can be measured from the total assets owned by the company. The larger the number of total assets represents the larger the size of the company. Large companies tend to have large amounts of capital from investors, have a high sales value, high cashflows, and large market capitalization (Astuti et al., 2017). They can attract investors to invest, but will also politically attract the attention of the Government. Therefore, large companies tend not to be aggressive in conducting earnings management (Astuti et al., 2017).

The company’s growth can be measured from the change of company assets from year to year. The higher the number of assets the company has can be interpreted as the higher company’s growth rate. Companies that are in the growth stage have a tendency to increase profits that aims to attract investors to entrust their investments in the company (Annisa and Hapsoro, 2017). Management will be encouraged to make earnings management to maximize the opportunities that exist when the company grows to get the maximum investment funds.

In agency theory, conflicts of interest between company owners and agents (management) can be minimized by the existence of Good Corporate Governance. One component of corporate governance is the existence of institutional ownership as part of shareholders. Institutional ownership has the role of a sophisticated investor, which when done effectively can supervise management performance to restrict management in conducting earnings management (Aryanti et al., 2017). According to (Aygun et al., 2014), institutional investors have more effective capabilities and resources to supervise the company's managers than individual investors. The existence of institutional ownership makes the management acts in accordance with the expectations of investors and creditors, so as to reduce earnings management practices.

(Sari and Astika, 2015) found that as a moderation variable, institutional ownership weakens the influence of leverage on earnings management. (Umami, 2018) found that as a moderation variable, institutional ownership can strengthen the influence of earnings power (profitability) and firm size on accrual earnings management practices, but weakens the influence of leverage on accrual earnings management practices. This means that the existence of institutional ownership can affect the factors that encourage management to do earnings management practices.
There are some cases of earnings management practices that occur in Indonesia. One of the cases related to PT Tiga Pilar Sejahtera Food Tbk (AISA). At the end of March 2019, the Indonesia Stock Exchange (IDX) called the board of Directors of PT Tiga Pilar Sejahtera Food Tbk (AISA) to request explanation regarding the investigation of financial report 2017 by PT Ernst & Young Indonesia (EY). The results of EY's investigation showed that there were findings to the alleged accounting post of Rp 4 trillion as well as several other allegations (https://www.bareksa.com/id/text/2019/03/28/berita-hari-ini-bei-minta-penjelasan-investigasi-aisa-laba-lpkr-rp695-miliar/21922/news).

Another case occurred at PT Inovisi Infracom Tbk (INVS). Indonesia Stock Exchange (IDX) carried out a suspension for the stock trading of PT Inovisi Infracom TBK (INVS) as it found an indication of a misconduct in the financial statement of the third quarter of the 2014. There are eight points of misstatement in INVS financial statement of September 2014, there are other debts to the related parties, fixed assets, earnings per share, cash payments to employees, revenues of related parties, business segment reports, liabilities, and financial instruments (https://finance.detik.com/bursa-dan-valas/d-2917159/saham-inovisi-dibekukan-4-bulan-karena-laporan-keuangan-banyak-salah). Previously, INVS management had revised its financial statements for the period from January to September 2014 where the fixed assets value decline to Rp1.16 trillion after a revision from previously recognized by Rp1.45 trillion. INVS also recognizes earnings per share based on the profit of the current period. This practice makes the INVS earnings per share appear larger. In fact, the company should use the profit of the period attributable to the parent company (https://www.bareksa.com/id/text/2015/02/25/bei-laporan-keuangan-inovisi-salah-saji-suspen-saham-belum-akan-dibuka/9562/analysis).

Earnings management practices also occur in state-owned enterprises. The management of PT Garuda Indonesia (Persero) allegedly made changes in the 2018 financial statements to make it look healthy. Two Commissioners of PT Garuda Indonesia expressed a disenting opinion and did not want to sign the 2018 financial statement. In the financial statement of 2018, PT Garuda Indonesia recorded the net profit of US $809.85 million, is supported by one of the cooperation between PT Garuda Indonesia and PT Mahata Aero Terknologi which reached US $239.94 million. The fund is still receivable but already recognized as income so that the company that previously had net loss then reported a net profit. Garuda Indonesia’s management re-presented the 2018 financial statement and recorded net loss of US $175.028 million (https://finance.detik.com/bursa-dan-valas/d-4640204/kronologi-laporan-keuangan-garuda-dari-untung-jadi-buntung).

The manufacturing industry is one of the sectors listed on the Indonesia Stock Exchange, consisting of basic and chemical industries, miscellaneous industries, and consumer goods industry. Manufacturing industries in Indonesia is one of the industries that are experiencing rapid development, it can be seen from the increase in market demand. The year 2018 became a brilliant year for the manufacturing industry in Indonesia. The United Nations Industrial Development Organization (UNIDO) states that Indonesia in 2018 has increased its ranking from tenth to ninth in the world in the Manufacturing Value Added category. In addition, in the year 2018 manufacturing industries in Indonesia contributed up to 22% of the gross domestic product (GDP) (https://industri.kontan.co.id/news/sektor-manufactur-ini-jadi-andalan-di-tahun-2018).

Looking at the development of the manufacturing industry in Indonesia, investors have the urge to invest in the manufacturing sector in hopes of obtaining a high return for...
their investments. This can be an opportunity for the management of the manufacturing company in doing earnings management, whether by arranging positive net income reported or by setting the amount of net income reported that can be an attraction to investors. The practice of earnings management in manufacturing companies can be an issue to be considered by investors so that investors do not make investment decisions based on incorrect information. Because there are still cases of earnings management in Indonesian and the importance of the role of manufacturing companies in Indonesia, it is necessary to conduct research on the factors that affect earnings management for manufacturing companies in Indonesia.

THEORETICAL REVIEW

Agency Theory. (Jensen and Meckling, 1976) stated that the agency theory is a theory of the relationship between two or more parties, including shareholders as the principal and management as the agent. This relationship is formed in economic activity due to the delegation of tasks from shareholders (principals) to management (agent). Principal and agent have different objectives and it creates a conflict of interest. This is a negative sign in the operation of the company because it can cause losses for the company as well as its shareholders.

Management has better knowledge than the company owners, both in quantity and quality as well as unlimited access to company information. This situation can be used by management to gain personal benefits by conducting earnings management, such as hiding material financial information or manipulating financial statements by changing the numbers reported.

Signaling Theory. (Godfrey et al., 2010) stated that signaling theory is a theory that the management will strive to provide positive signals to investors through the accounts in the financial statements in order to achieve the shareholders’ expectations of positive and stable income growth. Providing such signals can be done in various ways, such as income smoothing, increasing revenues and understating company debt, revaluation of assets, etc.

Investor trust is very important and the main thing for a company. Therefore, to maintain that trust, the management will always try to give a positive signal about his company to the investors to maximize the value and the company’s growth. Signaling theory can explain the behaviour of the management that gives signals to investors through financial reporting accounts, in particularly related accounts of leverage and profitability. The high debt turnover will give the investor less good signal. The management will try as much as possible to continue to generate a stable and high level of profitability. In order to provide a good signal to the investor, the management will try all kinds of ways to achieve its objectives, one of which is by doing earnings management practices.

Management will also try to maintain an increase in the company’s growth from one period to another by providing good signals through the company’s asset account. When the number of assets owned by the company is increasing, it can be interpreted that the growth of the company is also increasing, so that investors will see the signal positively and entrust the investment in the company.
Earnings Management. Earnings management is an option taken by a manager associated with an accounting policy that affects the reporting of net income to achieve certain objectives (Scott, 2012). Earnings management can be done by recognizing current expenses into the future periods and recognizing future revenues to the current period so that the reported profit is higher than the real profit (Sulistyanto, 2015).

Shareholders and external parties prefer companies with high and steady profits, as companies with fluctuating profits pose substantial risks accompanied by higher levels of uncertainty. One way to do earnings management is to flatten the earnings reported in each year so that the company's performance looks stable and doesn't undergo too much change.

Earnings management can be done in two methods, namely the real method and the accrual method (Kusumawati et al., 2015). (Ardison et al., 2012) conducting accrual earnings management testing based on the Jones model (Jones, 1991), modified Jones model (Dechow et al., 1995; Alzoubi, 2015), and KS model (Kang and Sivaramakrisnan, 1995). This study used the Discretionary Accruals (DACC) formula of the modified Jones model. This model refers to the accrual component derived from the action and choice of management that conducts the practice of earnings management on the financial statements, causing a difference in revenue recognition because it is influenced by receivables and differences in the depreciation of fixed assets (Alzoubi, 2015).

Leverage and Earnings Management. (Kasmir, 2014) stated that leverage shows the extent to which the company's assets are financed with the company's debts. Leverage can be measured using Debt to Assets Ratio (DAR), which is the ratio used to see how much the company's assets are financed by the debt. The higher the level of leverage, the higher the risk borne by the company. Companies with high leverage (DAR) tend to gain tight supervision from creditors and shareholders. Otherwise, if the company's debts are small and still well controlled, investors and shareholders will be more convinced to invest in the company. In accordance with signaling theory, high levels of debt will be a strong signal to creditors and shareholders, so that the company will be a public attention.

The management of companies that have a large amount of debt will be required by stakeholders to increase their company's profits so that they are not threatened to be liquidated. This led to companies with a high rate of the leverage ratio to do earnings management practices by manipulating increased profits, with the intention that the company looks healthy from the views of investors and the public, thus free from the threat of liquidation.

The positive influence of leverage on earnings management practices was found from the research done by (Nalarreason et al., 2019), (Agustia and Suryani, 2018), (Astuti et al., 2017), (Wardani and Isbela, 2017), and (Sari and Astika, 2015). Otherwise, research from (Asitalia and Trisnawati, 2017), (Andriawan and Wijaya, 2019), and (Yuliana and Trisnawati, 2015) found that there was a significant and negative influence between leverage (DAR) on earnings management. Meanwhile, (Amalia et al., 2019), (Utami, 2019), (Umami, 2018), (Wiyadi et al., 2015), and (Annisa and Hapsoro, 2017) found that leverage (DAR) had no influence on earnings management. The high leverage resulted in reducing accrual transactions by management, thereby lowering the practice of accrual earnings management (Ardison et al., 2012).
Proficiency and Earnings Management. (Sudana, 2011) defines profitability as the company’s ability to generate net income using resources owned such as assets, capital and sales. Profitability can be measured in a variety of ways, one of which is with measurements based on total assets (Return on Assets Ratio). The amount of net income reported is the main indicator for investors in making investment decisions. The greater the net income that the company reported, the better the signal given by the company to the users of financial statements. The high net income and on target is also the benchmark of the company's performance.

Income reporting is one of the main things that can trigger earnings management practices. Each company will strive to meet the expectations of stakeholders, with the aim that the company's image and performance still look good and smoothly by investors. In accordance with agency theory, management will strive to pursue bonuses for personal interest, but on the other hand, it also strives to meet the expectations of investors as much as possible. The higher the ROA means the more efficient the use of assets and increasing net income. Management tends to be motivated to engage in earnings management practices by selecting and using accounting methods that will make the reported net income higher (Yuliana and Trisnawati, 2015).

(Amalia et al., 2019), (Suadiah and Utomo, 2018), (Yuliana and Trisnawati, 2015), and (Utami, 2019) found a positive and significant influence between profitability and earnings management. Meanwhile, (Agustia and Suryani, 2018), (Wardani and Isbela, 2017), as well as (Muhammadinah, 2016) found that the profitability of the company has a positive influence on earnings management but not significant. Otherwise, (Wiyadi et al., 2015) found that profitability has a negative effect on earnings management but not significant.

Firm Size and Earnings Management. Firm size is a scale to classify companies as large or small companies, namely by looking at the total assets, the number of sales, average sales, stock market value of the company, and others (Yuliana and Trisnawati, 2015). The firm size in this research is measured from the natural logarithm of total assets owned by the company.

In agency theory, the conflict of interest between the owner and the agent will lead to information asymmetry because the management as an agent does not provide all information honestly and openly to the stakeholders (Nelarreason and Mardiati, 2019). The larger the size of the company, the greater the asymmetry of the information occurring (Jensen and Meckling, 19756). Therefore, the management of large companies tends to do earnings management due to pressure to meet the expectations of stakeholders. Large companies will also avoid too high increases in net income because the increase in net income leads to increased taxes, while the decrease in net income will give images and signals that are less good in the eyes of investors (Yuliana and Trisnawati, 2015). Otherwise, small companies also tend to do earnings management to demonstrate performance and positive signals in the eyes of investors in the hopes that investors will invest.

(Yuliana and Trisnawati, 2015) and (Nelarreason et al., 2019) found a positive and significant influence between firm size and earnings management, whereas (Umami, 2018) found negative and significant influences between firm size and earnings management. The insignificant and positive influence between firm size and earnings management was found from the research of (Agustia and Suryani, 2018), while the insignificant and negative
influence was found from the research of (Wiyadi et al., 2015), (Astuti at el., 2017), (Andriawan and Wijaya, 2019), (Muhammadinah, 2016), (Susanto and Majid, 2017), as well as (Wardani and Isbela, 2017).

Company’s Growth and Earnings Management. (Brigham and Houston, 2010) stated that the company's growth was a change in either the increase or decrease of the total assets owned by the company. Total assets from year to year can reflect the growth of the company and become one of the benchmarks in assessing the company’s business continuity. When the company has an increasing asset, it can be said that the company grows. It can increase the investor's trust to have more investment in the company.

An increase in the company’s growth also impacted the increase in net income gained by the company (Muhammadinah, 2016). (Annisa and Hapsoro, 2017) revealed that companies with high asset growth will increase the trust of various parties, such as investors, creditors, governments and communities. When the company is experiencing increased growth, it will open up opportunities or opportunities for the company itself to add the company’s value more, with the expectation that investors will invest more funds in the company. It can trigger earnings management practices by manipulating increased net income, so the net income presented in financial statements is attractive to investors.

(Annisa and Hapsoro, 2017) and (Debnath, 2017) found that the company’s growth has a significant and positive influence on earnings management practices. The research of (Muhammadinah, 2016) states that the company’s growth has a significant and negative influence on earnings management. Meanwhile, the opposite result comes from the research of (Andriawan and Wijaya, 2019) stating that the company’s growth has no significant influence on earnings management practices.

Institutional Ownership and Earnings Management. The Organization for Economic Co-Operations and Development (OECD, 2004) stated that as a shareholder, the institutional shareholders have fiduciary’s responsibility to the interested parties (stakeholders) and have a role to ensure that good corporate governance practice is conducted within the company. (Jensen and Meckling, 1976), said that institutional ownership could be a controller for agency conflict that occurred between the manager (agent) and the shareholders (principal). With the existence of institutional ownership, the manager will be more controllable and well-supervised so the decisions made by them are more effective.

Institutional ownership has a greater ability to detect an earnings management practice compared to individual investors because it has more access to obtain timely and relevant information. Institutional ownership can be an indirect controlling mechanism for management so that the management will conduct straight actions and not misuse their position to create manipulation of financial statements. Therefore, the greater the involvement of institutional investors, will bring a positive influence on the behavior of the company’s management. This is because the management has pressure to always generate good performance, as well as supervision to always act honestly and accordingly without doing earnings management practices.

(Asitalia and Trisnawati, 2017) and (Utami, 2019) stated that institutional ownership has a negative influence on earnings management but not significant, while (Alzoubi, 2015) and (Aygun et al., 2014) stating that institutional ownership has a significant and negative
influence on earnings management. The research conducted by (Aryanti et al., 2017), (Andriawan and Wijaya, 2019), as well as (Susanto and Majid, 2017), stated that institutional ownership had a positive influence on earnings management but not significant. (Umami, 2018) found that as a moderation variable, institutional ownership can strengthen the influence of earnings power (profitability) and firm size on accrual earnings management practices, but weakens the influence of leverage on accrual earnings management practices. Meanwhile, (Sari and Astika, 2015) find that institutional ownership weakens the influence of leverage on earnings management. This means that the existence of institutional ownership can affect the factors that encourage management to do earnings management practices. Institutional ownership can encourage management to pay more attention to the company's performance, thereby reducing the opportunistic behaviour of the management (Kusumaningtyas et al., 2019).

Framework and Hypothesis. The framework in this research can be seen in Figure 1. The proposed hypothesis is as follows:

H1 : Leverage (DAR) has a positive influence on earnings management.

H2 : Profitability (ROA) has a positive influence on earnings management.

H3 : Firm Size (SIZE) has a positive influence on earnings management.

H4 : Company’s Growth has a positive influence on earnings management.

H5 : Institutional ownership has a negative influence on earnings management.

H6 : Institutional ownership is significantly able to moderate the influence of DER, ROA, Size, and Growth on earnings management.

METHODOLOGY

Population and Sample Selection Techniques. The population in this research is a manufacturing company listed on IDX in 2016-2018. Samples in this research were taken using purposive sampling techniques. Sampling criteria are the IDX-listed manufacturing
company, not delisting, reported positive income during the year 2016-2018, and had all the variables used in this research. Data processed in this research as much as 162 data from 54 samples of manufacturing companies.

**Variable Identification And Measurement.** The independent variables in this research consist of leverage proxied by DAR, profitability proxied by ROA, firm size, growth, and institutional ownership, while the dependent variable is the accrual earnings management measured by the Modified Jones Model. The operationalization of each variable can be seen in Table 1.

<table>
<thead>
<tr>
<th>Variable Identification And Measurement</th>
<th>Measurement</th>
<th>Scale</th>
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<tbody>
<tr>
<td>Leverage</td>
<td>DAR (X1) = ( \frac{\text{Total Debt}}{\text{Total Assets}} \times 100% )</td>
<td>Ratio</td>
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<tr>
<td>Profitability</td>
<td>ROA (X2) = ( \frac{\text{Net Income}}{\text{Total Assets}} \times 100% )</td>
<td>Ratio</td>
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<tr>
<td>Firm Size</td>
<td>Size (X3) = ( \ln (\text{Total Assets}) )</td>
<td>Ratio</td>
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<tr>
<td>Company’s Growth</td>
<td>Growth (X4) = ( \frac{\sum \text{Aset}<em>t - \sum \text{Aset}</em>{t-1}}{\sum \text{Aset}_{t-1}} )</td>
<td>Ratio</td>
</tr>
<tr>
<td>Kepemilikan Institusional</td>
<td>INST_OWN (X5) = ( \frac{\text{Number of shares owned by institution}}{\text{Number of shares outstanding}} \times 100% )</td>
<td>Ratio</td>
</tr>
<tr>
<td>Accrual Earnings Management</td>
<td>DACC</td>
<td>Ratio</td>
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<tr>
<td><strong>Step 1:</strong></td>
<td>TACit = NIit – CFOit</td>
<td></td>
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<tr>
<td><strong>Step 2:</strong></td>
<td>TCAit [1]_[Ait-1] = ( \beta_1 \left( \frac{1}{Ait-1} \right) + \beta_2 \left( \frac{\Delta \text{REVit}}{Ait-1} \right) + \beta_3 \left( \frac{\text{PPEit}}{Ait-1} \right) + eit )</td>
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<tr>
<td><strong>Step 3:</strong></td>
<td>NDACit = ( \beta_1 \left( \frac{1}{Ait-1} \right) + \beta_2 \left( \frac{\Delta \text{REVit} - \Delta \text{RECit}}{\text{TAAit} - 1} \right) + \beta_3 \left( \frac{\text{PPEit}}{Ait-1} \right) ) +</td>
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<tr>
<td><strong>Step 4:</strong></td>
<td>DACit = ( \left( \frac{TAC}{Ait-1} \right) - \text{NDACit} )</td>
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</table>

**Data Collection Techniques.** The data in this research is secondary data obtained from the financial statements of manufacturing companies listed on IDX in 2016-2018 which are accessed through the company’s website, www.idx.co.id, and www.sahamok.com.

In this study, the data was processed using Eviews version 10.0. Data analysis includes descriptive statistical analysis (mean, minimum value, maximum value and standard deviation), multicollinearity test, panel data regression analysis (common effect, fixed effect, and random effect tests), and moderating regression analysis. The selection of the
regression model for this study used the Chow test, the Hausmann test, and the Lagrange-Multiplier test. Hypothesis testing includes coefficient of determination (R²) test, F test and t-test with a significance level of 5%.

The research models used for H₁, H₂, H₃, H₄ and H₅ are as follows:

\[ DACC = \alpha + \beta₁DAR + \beta₂ROA + \beta₃SIZE + \beta₄GROWTH + \beta₅INST\_OWN + \varepsilon \] ……(1)

The research model for H₆ is:

\[ PBV = \alpha + \beta₁DAR + \beta₂ROA + \beta₃SIZE + \beta₄GROWTH + \beta₅INST\_OWN + \beta₆DAR*INST\_OWN + \beta₇ROA*INST\_OWN + \beta₈SIZE*INST\_OWN + \beta₉GROWTH*INST\_OWN + \varepsilon \] …………………………………………………………………..(2)

Description:
- DACC = Discretionary Accruals
- DAR = Debt to Assets Ratio
- ROA = Return on Assets
- SIZE = Firm Size
- GROWTH = Company’s Growth
- INST\_OWN = Institutional Ownership
- α = Constant
- β₁-β₉ = Regression Coefficient
- ε = Error

RESULTS AND ANALYSIS

Descriptive Statistical Analysis. Descriptive statistical results can be seen in Table 2. The descriptive statistical result for accrual earning management (Y) has a maximum value of 0.825946 from PT Waskita Beton Precast Tbk. in year 2016 and a minimum value of -0.665865 from PT Alakasa Industriindo Tbk. in 2018. The average value of accrual earnings management is at-0.106214 which is lower than its standard deviation of 0.128242, which means the accrual earnings management from the sample company has a high variation rate.

<table>
<thead>
<tr>
<th>Table 2. Descriptive Statistical Result</th>
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<tr>
<td>DACC</td>
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<tr>
<td>Mean</td>
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<td>Median</td>
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<td>Maximum</td>
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<td>Minimum</td>
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<td>Std. Dev.</td>
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Source: (data processed in 2020)

The average value for leverage (DAR) is 0.443480 higher than its standard deviation of 0.276729. The maximum value of DAR is 2.055782, it indicates that the highest rate that
the sample company’s assets are financed by the debt is 2.055782 times of the total assets owned. Meanwhile, the minimum value is 0.110982 or 0.110982 times of assets owned by the sample company.

The profitability (ROA) has a maximum value of 0.300229 and a minimum value of 0.000282. The average value of ROA 0.065794 is higher than the standard deviation value of 0.057532. The low value of ROA indicates the sample companies still not efficiently using their assets, it only generates a net income of 6.5794%.

The maximum value of the firm size is 31.86654 and a minimum value of 25.21557. The deviation standard value of 1.419754 is lower than the average value of 28.48613 which means the sample companies have a low variation of the firm size value which is measured from the total natural logarithm of the company's assets. Meanwhile, the descriptive statistical result for the company’s growth has an average value of 0.132425 which is lower than its standard deviation value of 0.266311. This value indicates the high variation in the company’s growth that can be seen from the range of maximum dan minimum values that is quite far. The maximum growth value of 2.170123 is owned by PT Waskita Beton Precast Tbk. in 2016 and a minimum value of -0.32846 was owned by PT Mulia Industirindo Tbk. in 2017. The negative value indicates there is still a negative growth from the sample company which means the company’s assets are not increased but decreased.

Institutional ownership has a maximum value of 0.931566 from PT Primarindo Asia Infrastructure Tbk. in 2016, and a minimum value of 0.051432 from PT Wismilak Inti Makmur Tbk. in 2016 and 2017. The average value of the institutional ownership is 0.584745 higher than the standard deviation value of 0.231031 indicating the low variation of the institutional ownership within the sample company.

**Multicollinearity Test.** The Multicollinearity test results in **Table 3** indicate the values of the correlation coefficient of all independent variables are smaller than 0.8 which means there is no multicollinearity (Ajija et. al., 2011).

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<tr>
<th></th>
<th>DAR</th>
<th>ROA</th>
<th>SIZE</th>
<th>GROWTH</th>
<th>INST_OWN</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAR</td>
<td>1.000000</td>
<td>-0.126420</td>
<td>-0.228694</td>
<td>0.030412</td>
<td>0.101003</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.126420</td>
<td>1.000000</td>
<td>0.346292</td>
<td>-0.028757</td>
<td>0.287079</td>
</tr>
<tr>
<td>SIZE</td>
<td>-0.228694</td>
<td>0.346292</td>
<td>1.000000</td>
<td>0.010101</td>
<td>0.145953</td>
</tr>
<tr>
<td>GROWTH</td>
<td>0.030412</td>
<td>-0.028757</td>
<td>0.010101</td>
<td>1.000000</td>
<td>0.064317</td>
</tr>
<tr>
<td>INST_OWN</td>
<td>0.101003</td>
<td>0.287079</td>
<td>0.145953</td>
<td>0.064317</td>
<td>1.000000</td>
</tr>
</tbody>
</table>

Source: (data processed in 2020)

**Estimation Model Selection.** Chow’s test result by using Eviews 10 shows the value of the cross-section chi-square probability of 0.0000 smaller than 0.05, which means the fixed effect model is better than the common effect model. Testing followed by the Hausman test which shows a random cross-section probability value of 0.3866 greater than 0.05, which means that the random effect model is better than a fixed-effect model. To confirm the results of the Hausman test, the Langrange Multiplier test was carried out with a result of p-value (Breusch-Pagan) of 0.0000 which is smaller than 0.05, which means the best estimation model used for H1 to H5 is a random effect model.
The same test is done to select the best estimation model for moderating regression analysis. Chow's test results show the value of the cross-section chi-square probability of 0.0000 smaller than 0.05 and the Hausman test results showing a cross-section random probability value of 0.0141 smaller than 0.05. Based on the results of the two tests the best estimate model used for the moderating regression analysis (H6) is a fixed-effect model.

**Panel Data Regression Result.** The random effect model of the panel data regression analysis is as follows:

\[
\text{DACC} = -0.993288 - 0.099661 \text{DAR} - 0.123738 \text{ROA} + 0.032948 \text{SIZE} \\
+ 0.113503 \text{GROWTH} - 0.024233 \text{INST\_OWN} + \varepsilon \quad \text{.................(3)}
\]

Description:
- \text{DACC} = \text{Discretionary Accruals}
- \text{DAR} = \text{Debt to Assets Ratio}
- \text{ROA} = \text{Return on Assets}
- \text{SIZE} = \text{Firm Size}
- \text{GROWTH} = \text{Company’s Growth}
- \text{INST\_OWN} = \text{Institutional Ownership}

From the above equation, the value of constants is -0.993288, which means if DAR, ROA, firm size, company’s growth and institutional ownership is zero or fixed, then the accrual earnings management will be reduced by 0.993288 points. The regression coefficient of DAR -0.099661 means that the accrual earnings management will be reduced by 0.099661 points if the other independent variables are zero or fixed in value. The same results occur to ROA and institutional ownership. The regression coefficient of ROA is -0.123738, which means if the other independent variable is zero or fixed it will lower the accrual earnings management by 0.123738 points. Then, the institutional ownership regression coefficient of -0.024233 means the value of the accrual earnings management will decrease by 0.024233 points if other independent variable is zero or fixed.

Firm size has a positive regression coefficient value, it indicates that accrual earnings management will increase by 0.032948 points if other independent variable is zero and fixed. The company’s growth regression coefficient indicates that accrual earnings management will increase by 0.113503 points if DAR, ROA, size, and institutional ownership is zero or fixed.

**Table 4. Panel Data Regression Result**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-0.993288</td>
<td>0.277528</td>
<td>-3.579051</td>
<td>0.0005</td>
</tr>
<tr>
<td>DAR</td>
<td>-0.099661</td>
<td>0.046877</td>
<td>-2.126009</td>
<td>0.0351</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.123738</td>
<td>0.209613</td>
<td>-0.590316</td>
<td>0.5558</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.032948</td>
<td>0.009758</td>
<td>3.376374</td>
<td>0.0009</td>
</tr>
<tr>
<td>GROWTH</td>
<td>0.113503</td>
<td>0.028057</td>
<td>4.045406</td>
<td>0.0001</td>
</tr>
<tr>
<td>INST_OWN</td>
<td>-0.024233</td>
<td>0.051393</td>
<td>-0.471523</td>
<td>0.6379</td>
</tr>
</tbody>
</table>
Table 4 shows the Adjusted $R^2$ result has a value of 0.190872 or 19.09%. This value indicates 19.09% of accrual earnings management practices can be explained by the leverage (DAR), profitability (ROA), firm size, growth, and institutional ownership. The remaining 80.91% is explained by other variables not tested in this research.

F-test result with a significance level of 5% shows the value of Prob (F-statistic) of 0.000003 which is smaller than 0.05. This result indicates that the regression model in this research satisfies the feasibility of the model, where leverage (DAR), profitability (ROA), firm size, growth, and institutional ownership simultaneously have a significant influence on the accrual earnings management practices.

Hypothesis Test Results And Discussion. Table 4 shows DAR has a regression coefficient of -0.099661 and t-statistic -2.126009 with a significance level of 0.0351 which is smaller than 0.05. $H_1$ which states leverage (DAR) has a positive influence is rejected. The results show DAR have a significant and negative influence on the accrual earnings management practices. The increase in the value of DAR will decrease accrual earnings management practices.

The results of the negative and significant influences of this research in line with the research of (Asitalia and Trisnawati, 2017), (Andriawan and Wijaya, 2019), as well as (Yuliana and Trisnawati, 2015) which also found that there was a significant and negative influence between leverage (DAR) and accrual earnings management. Based on the results, the management of the sample company is not encouraged to do earnings management although the debt level to fund the company's assets increases. These results indicate that the sample company has a high level of confidence that the company is able to repay its debts at maturity. The negative influence of leverage on accrual earnings management can also indicate the sample company has a low level of debt so that the default rate is also low, and management does not need to do earnings management practices to provide positive value in the eyes of investors (Alzoubi, 2017).

However, the results of this research are not in line with the research of (Nalarreason et al., 2019), (Agustia and Suryani, 2018), (Astuti et al., 2017), (Wardani and Isbela, 2017), as well as (Sari and Astika, 2015). Their research found leverage has a positive influence on accrual earnings management practices. Otherwise, the research of (Amalia, 2019), (Utami, 2019), (Umami, 2018), (Wiyadi et al., 2015), and (Annisa and Hapsoro, 2017) stated that leverage (DAR) has no influence on the practice of accrual earnings management.

ROA has a regression coefficient value of -0.123738 and t-statistic -0.590316 with a significance level of 0.5558 which is greater than 0.05. $H_2$ is rejected which means profitability (ROA) has a negative and insignificant influence on the accrual earnings management practices. These results indicate that the probability level (ROA) is not a factor considered by the sample company's management to perform accrual earnings management practices.
The research done by (Wiyadi et al., 2015) is in line with the results of this research where profitability has a negative effect on accrual earnings management but not significant. Although there is no significant influence between the profitability and accrual earnings management, it does not mean that investors ignore the company's probability rate because the investors can use ROA to measure the return of their investment in the company (Wiyadi, et. al, 2015). The negative and insignificant influence indicates that with the high rate of ROA, the investor and management will be benefited so that management does not encourage to do earnings management.

The result from this research was not in line with the research of (Agustia and Suryani, 2018), (Wardani and Isabela, 2017), and (Muhammadinah, 2016) who found that profitability had a positive influence on earnings management but not significant. Meanwhile, (Amalia et al., 2019), (Suadiah and Utomo, 2018), (Yuliana and Trisnawati, 2015), and (Utami, 2019) found a positive and significant influence between profitability and earnings management.

Firm size has a regression coefficient of 0.032948 and t-statistic 3.376374 with a significance level of 0.0009 which is smaller than 0.05. Based on these results, H3 is accepted which means firm size has a positive and significant influence on the accrual earnings management practices. The increase in the firm size will provide an increase in accrual earnings management practices.

The research done by (Yuliana and Trisnawati, 2015) and (Nalarreason et al., 2019) found a positive and significant influence between the firm size and earnings management. Large companies already have a good name in the eyes of the community and under the supervision of stakeholders. This condition can encourage the management of the company to maintain the company's good name by conducting earnings management (Yuliana and Trisnawati, 2015). So the larger the size of the company will increase accrual earnings management practices.

(Umami's 2018) resulted in a significant and negative influence between firm size and earnings management which is not in line with the results of this research. Negative influence occurs because the larger a company means the company has reached the stage of maturity and has a positive cash flow and a positive future prospects so that the management of the company does not need to do earnings management practices (Yuliana and Trisnawati, 2015).

Otherwise, insignificant and positive influences between the firm size and earnings management were found from the research of (Agustia and Suryani, 2018), and the insignificant and negative influence found from the research of (Wiyadi et al., 2015), (Astuti et al., 2017), (Andriawan and Wijaya, 2019), (Muhammadinah, 2016), (Susanto and Majid, 2017), as well as (Wardani and Isbela, 2017).

The company’s growth has a significance value of 0.0001 smaller than 0.05 with a regression coefficient of 0.113503 and t-statistic of 4.045406. The company’s growth has a positive and significant influence over the accrual earnings management practices, which means H4 in this research is accepted. If the company is experiencing growth, reflected by the increase in the number of assets, the practice of accrual earnings management will increase.

The results of this study were consistent with the research of (Annisa and Hapsoro, 2017) and (Debnath, 2017) where the company’s growth has a significant and positive influence on accrual earnings management practices. If the number of company assets
increases, then investors dare to invest their funds in companies that have a growing number of assets. If the number of company assets is not increasing, investors will use net income as an indicator of investment decision making. Therefore, the management of large companies will try to convince investors to keep investing by keeping the company's net income stable through the practice of accrual earnings management (Annisa and Hapsoro, 2017).

The results of this research were not in line with research from (Muhammadinah, 2016) stating that the company’s growth has a significant and negative influence on earnings management. Meanwhile, difference result comes from the research of (Andriawan and Wijaya, 2019) who found that the company’s growth has no significant influence on earnings management practices.

Firm size and the company’s growth in this research have a consistent result that has a positive and significant influence. The size of large companies can be seen from the company's total assets and the growing number of company assets from year to year. This indicates that a large company that continues to grow could encourage the management to do accrual earnings management. The management of the company will strive to maintain the good name and positive company’s performance by maintaining stable net income reported annually through accrual earnings management practices.

The regression coefficient of the institutional ownership of -0.024233 and t-statistic -0.471523 with a significance level of 0.6379 is greater than 0.05. H5 in this research is rejected, which means institutional ownership has a negative and insignificant influence on the accrual earnings management practices. Institutional ownership has a role in supervising management’s behaviour so they will not perform accrual earnings management. Although the results of this research stated that the existence of institutional ownership has a negative influence but it does not give a significant influence on the accrual earnings management practices.

The results of this study were consistent with the research of (Asitalia and Trisnawati, 2017) and (Utami, 2019) who stated that institutional ownership had a negative influence on earnings management but not significant. The greater the level of institutional ownership will lower the practice of accrual earnings management but the influence of the decline is not significant. This can happen because institutional ownership has not been able to restrict the management’s behavior in making a policy that manipulating the net income (Utami, 2019). The supervisory role of institutional ownership is also not at maximum rate because institutional ownership still acts as a temporary owner who only focuses on current earnings and utilizes its ability to control the company only to improve personal well-being (Utami, 2019). Thus, institutional ownership does not give a significant influence on the accrual earnings management conducted by the management of the company.

The research conducted by (Alzoubi, 2015) and (Aygun et al., 2014) found opposite results which stated that institutional ownership provides a significant and negative influence on accrual earnings management. This means that institutional ownership has exercised its role in supervising management’s behaviour in making decisions related to earnings management. Meanwhile, the research results from (Aryanti et al., 2017), (Andriawan and Wijaya, 2019), and (Susanto and Majid, 2017) stated that institutional ownership had a positive effect on earnings management but not significant.
Moderating Regression Analysis. The moderating regression analysis in this research uses institutional ownership as a moderating variable. The moderating regression analysis results can be seen in Table 5. Based on information in Table 5, the results show DAR, ROA, size, and growth moderated by institutional ownership having a significance value greater than 0.05 which means that H6 is rejected.

Table 5. Moderating Regression Analysis Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1.282856</td>
<td>2.044365</td>
<td>0.627509</td>
<td>0.5318</td>
</tr>
<tr>
<td>DAR</td>
<td>-0.492471</td>
<td>0.324502</td>
<td>-1.517618</td>
<td>0.1323</td>
</tr>
<tr>
<td>ROA</td>
<td>-0.376300</td>
<td>1.151623</td>
<td>-0.326757</td>
<td>0.7445</td>
</tr>
<tr>
<td>SIZE</td>
<td>-0.041372</td>
<td>0.070158</td>
<td>-0.589698</td>
<td>0.5567</td>
</tr>
<tr>
<td>GROWTH</td>
<td>0.292606</td>
<td>0.125930</td>
<td>2.323570</td>
<td>0.0222</td>
</tr>
<tr>
<td>INST_OWN</td>
<td>-0.467517</td>
<td>2.646693</td>
<td>-0.176642</td>
<td>0.8602</td>
</tr>
<tr>
<td>DAR_INSTOWN</td>
<td>0.420443</td>
<td>0.531844</td>
<td>0.790539</td>
<td>0.4311</td>
</tr>
<tr>
<td>ROA_INSTOWN</td>
<td>0.221442</td>
<td>1.583744</td>
<td>0.139822</td>
<td>0.8891</td>
</tr>
<tr>
<td>SIZE_INSTOWN</td>
<td>0.009911</td>
<td>0.090242</td>
<td>0.109827</td>
<td>0.9128</td>
</tr>
<tr>
<td>GROWTH_INSTOWN</td>
<td>-0.238440</td>
<td>0.196173</td>
<td>-1.215460</td>
<td>0.2271</td>
</tr>
</tbody>
</table>

Source: (data processed, 2020)

The coefficients of DAR, ROA and size without interaction with institutional ownership indicate a negative value and with the interaction with the institutional ownership have a positive coefficients value with a significance value greater than 0.05. These results indicate institutional ownership can strengthen the relationships of DAR, ROA, and size with accrual earnings management practices but not significant. The coefficient of the company’s growth indicates a positive value and with institutional ownership interactions indicate a negative value with a significance value greater than 0.05. These results mean that institutional ownership can weaken the relationship between the company’s growth and accrual earnings management practices but not significant.

The result of this moderating regression analysis is consistent with the research of (Umami, 2018) which found that as a moderating variable, institutional ownership can strengthen the influence of earnings power (profitability) and leverage on accrual earnings management practices but the influence is not significant. Meanwhile, (Sari and Astika, 2015) in their research found that institutional ownership weakens the influence of leverage on accrual earnings management practices.

CONCLUSION

The results from panel data regression analysis on the IDX-listed manufacturing company in 2016-2018 in this research showed that leverage proxied by DAR had a significant and negative influence on accrual earnings management practices. The profitability proxied by ROA and institutional ownership has a negative and insignificant influence. Meanwhile, firm size and company’s growth have a positive and significant influence on the accrual earnings management practices. DAR, ROA, size, growth, and institutional ownership simultaneously have a significant influence on the accrual earnings management practices.
The moderating regression analysis results show institutional ownership as moderating variables can strengthen the relationship of DAR, ROA, and size on accrual earnings management but are insignificant. The result also shows that institutional ownership weakens the relationship of the company’s growth and accrual earnings management but is also insignificant.

The results of this research show that the value of the coefficient of determination is still very low which is only 19.09% which means there are still 80.91% other factors outside of DAR, ROA, size, growth, and institutional ownership affecting the accrual earnings management practices. Further research can be performed on other factors and also by testing their impact on real profit management practices. In addition, subsequent research can be done by increasing the number of research samples either by adding periods of research and by adding company samples outside the manufacturing company.

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