

THE EFFECT OF BRAND REPUTATION, BRAND RELATIONSHIP QUALITY AND SWITCHING COST TO BRAND LOYALTY

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ABSTRACT

In the current global era, progress is happening very fast, companies all over the world are competing to continue to survive and win in increasingly fierce business competition. One way for companies to win in the competition is to win the hearts of consumers, which will lead to customer loyalty to the brand of the company. This research was conducted to determine the effect of brand reputation, brand relationship quality, and switching costs on brand loyalty in Nike brand basketball shoes. The data collection technique in this study was using purposive sampling. While the data processing method was done using validity, reliability, and descriptive statistical analysis. For the data analysis method used was PLS-SEM which was a multivariate analysis technique consisting of analysis of outer model, inner model, and hypothesis testing. From the results of this study, it was known that brand reputation and brand relationship quality significantly influence brand loyalty in Nike brand basketball shoes. While switching costs proved to be able to moderate the relationship between brand reputation to brand loyalty and the relationship of brand relationship quality to brand loyalty significantly.

Keywords: *Brand reputation, brand relationship quality, switching cost, brand loyalty.*

INTRODUCTION

The main goal for every company is not only to survive but also to win the intense competition through focusing into what customer needs and wants (Chadhiq, 2007). These type of company hope to provide customer convenience and stimulate repeat purchase behavior. This kind of customer behavior will lead to brand loyalty and will lead to the creation of revenue for company sustainability (Istijanto, 2009). Dick and Basu (1994) argued that the company must adopt certain unique strategy and approach for instance by emphasizing on brand reputation, utilizing customer relationship, and directing the entire company resources to improve customer loyalty.

A reputable brand plays significant role in determining consumer behavior in terms of product selection and it will lead to brand loyalty. Therefore, whenever the customers had received the product benefits or values then the customers tend to be loyal to the particular brand and tend to be less price sensitive (Wibisono, 2015). Nevertheless, several research findings showed the influences of brand reputation towards customer loyalty, on the contrary some other research showed the opposite findings. The company with a reputable brand somehow neglected its customers by making a certain services mistakes and as the consequences this will lead the customer to do brand switching (Ott, 2013). Aydin, Ozer, and Arazil (2005) explained that switching cost moderating the effect of reputable brand towards customer loyalty by reducing customer sensitivity on product performance evaluation.

Nike as one of the reputable brands worldwide is perceived highly by its loyal customer to increase their self-prestige or to gain a certain group status or symbol. Nowadays the customer has so many advantages in terms of information through the development of internet and technology, the customer can easily browse from A to Z regarding their favorable brand. As the consequences, the customers have more expectations toward the brand performances to fulfill their needs and wants. This research will investigate the effect of brand loyalty toward brand loyalty through brand relationship quality as the intervening variable and switching cost as the moderating variable by using Nike brand as the object study.

LITERATURE REVIEW

Brand Reputation

Brand reputation is the customer opinion either positive or negative towards a particular brand. The factors which affected brand reputation are the product quality, product performances, product advertisement, and product publication. Moreover, brand reputation plays significant roles to stimulate a positive customer expectation (Creed & Miles, 1996). In addition, Shandi (2011) stated that brand reputation as the customer base to evaluate brand reliability. Alam and Yasin (2010) added that previous customer experience, word of mouth, media publicity, and company public relation toward the brand are the factors impacting to brand reputation. Next, Aaker (1991) mentioned four indicators to measure brand reputation, they are memorability, uniqueness, personality.

Brand Relationship Quality

According to Sheth and Mittal (2004) brand relationship quality is relationship oriented view of consumer brand interaction which are positively held, voluntarily engaged, long term and affectively intense (in short, brand-loyal relations) in nature. Keller and Kotler (2008) added there are five indicators to measure brand relationship quality, they are intimacy, self-concept connection, love/passion, interdependence, commitment, and quality partner. Brand relationship quality refers to the important perception to foster entire things related to the brand in purpose to win the intense competition, therefore the company may use brand relationship quality to increase market share as well as to increase profit and as foundation to support marketing strategy program (Sweeney & Chew, 2002).

Switching Cost

Caruana (2003) explained switching cost as the cost which is occurred as the consequences of customer decision to do brand or product switching. Company can use switching cost as a tool to create barrier and to maintain its customers. There are three main important factors affecting switching cost, they are financial switching cost, procedural switching cost, and relational switching cost. In addition, Trijp (1996) argued two types of customer motivation to do brand switching, they are internal motives and external motives. The internal motives or true variety seeking behavior is a switching behavior in purpose to search for variation to avoid personal boredom, to fulfil the anxiety towards the new brand. Meanwhile the external motives or derived varied behavior is the switching behavior caused by other brand functional values for example the cheaper price, more product feature, etc.

Brand Loyalty

Brand loyalty is the loyalty measurement towards a particular brand (Rangkuti, 2002). In addition, Hawkins and Mothersbaugh (2013) explained that brand loyalty made customer less price sensitive toward the changing of the price. Next Aaker (1991) divide brand loyalty into five categories; they are brand awareness, brand association, brand quality, brand asset, and brand loyalty. There are two methods in measuring brand loyalty; firstly, is attitudinal brand loyalty which refers to customer tendency to do product repeat buying in the future and to recommend the brand to other customers, secondly is behavioral brand loyalty which refers to customer activity to do product repeat buying in certain period of time and the tendency to spend the majority of customer income to buy the certain brand (Chahal & Mehta, 2010).

RESEARCH METHOD

Sample and Data Collection

This research is using quantitative research approach, non-probability sampling with purposive sampling method. There are 120 respondents which are collected based on these criteria; age between 18–40 years old, residing in Surabaya City, registered at a basketball community, using Nike brand at least six times when playing basketball within three previous months. The researcher visited several basketball communities in Surabaya City to collect the research data by distributing the questionnaire and interviewing the potential respondent.

Measurement

The research using structural equation modelling through PLS to measure research variable. The research variables are Brand Reputation as independent variable, Brand Loyalty as dependent variable, Brand Relationship Quality as the intervening variable, and Switching Cost as the moderating variable.

FINDINGS

Description Analysis

The result for description analysis showed that the respondent perceived Nike brand as a good reputable brand, the respondents have a good brand relationship quality with Nike brand, the respondent loyal to Nike brand, and finally the respondents perceived high switching cost for Nike brand. There are rooms to be improved especially for brand relationship quality by improving customer trust and customer love toward Nike brand.

Hypotheses Testing

The research variables have meet the minimum requirement for validity and reliability testing. There are five hypotheses for this research:

H₁: Brand Reputation affecting Brand Relationship Quality

H₂: Brand Reputation affecting Brand Loyalty

H₃: Brand Relationship Quality affecting Brand Loyalty

H₄: Switching Cost moderating the effect of Brand Reputation to Brand Loyalty

H₅: Switching Cost moderating the effect of Brand Relationship Quality to Brand Loyalty

The research structural model can be seen on Figure 1.

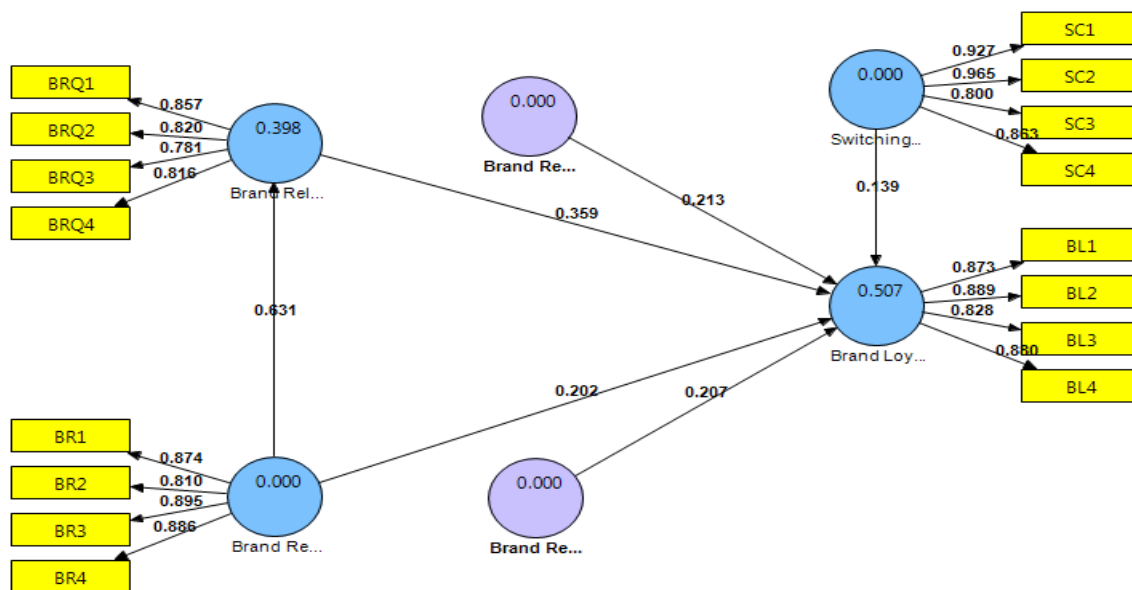


Figure1. PLS structural model

Based on hypotheses testing, it can be concluded that those five hypotheses were significantly accepted.

DISCUSSION

Based on research findings showed that brand reputation significantly affecting brand relationship quality, the biggest loading factor score on brand reputation indicates that customer trust on Nike brand (product quality, store services) plays significant role in creating brand reputation. Nike management need to focus on its product quality and services to maintain its brand reputation in purpose to keep brand loyalty. This finding supported Seo and Park (2017) which explained that the company need to keep innovating in purpose to be the best it its product category and as the consequences it will lead to brand loyalty. Next brand reputation also affecting brand relationship quality, the higher Nike brand

reputation will increase the level of customer engagement or relationship toward the brand. Giovanis and Athanasopoulou (2016) argued that the company has to improve its product quality in order to keep brand reputation and it will stimulate brand relationship quality. The finding showed that customer has a high relationship toward Nike brand and also showed that customer switching cost is high which mean the customer face more cost if they switch from Nike brand to other footwear product brand. This finding is consistent with Aydin *et al.* (2005) who explained that the company has to create more barrier to exit for its customers.

CONCLUSION

Brand loyalty is the main goal for every company by considering the benefits gained from this customer behavior. Brand reputation plays significant and very important roles in creating brand loyalty. The reputation can be improved by innovating product quality and product services. In addition, the company also need to focus on developing brand relationship quality through improving customer trust and customer love toward the brand. Finally, the company need to keep its performance in every aspect of the product in purpose to create the exit barrier both emotional and functional barrier. This barrier will increase customer switching cost and will impact to brand loyalty.

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THE EFFECTS OF OWNERSHIP STRUCTURE AND BOARD OF DIRECTORS' CHARACTERISTICS ON EARNINGS MANAGEMENT

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ABSTRACT

This research purpose was to obtain empirical evidence regarding the effect of institutional ownership, managerial ownership, foreign ownership, board of directors' meeting, board of directors' size, female board of directors, firm size, return on asset, leverage, and audit quality on earnings management. The Population of this research was all non-financial companies consistently listed in Indonesia Stock Exchange from 2017 to 2019. Purposive sampling was used to select 144 companies used as the research samples. Multiple regression and hypotheses test were used as the data analysis method. The result of this research statistically showed that firm size had negative effect on earnings management. Leverage had positive effect on earnings management. The other variables including institutional ownership, managerial ownership, foreign ownership, board of directors' meeting, board of directors' size, female board of directors, return on asset, and audit quality had no influence on earnings management in non-financial companies listed in Indonesia.

Keywords: *Earnings management, ownership structure, board of directors, characteristics, return on asset, audit quality.*

INTRODUCTION

The rise of globalization in business and financial aspects cause the need to conduct comparative evaluation of reports between different countries (Jaggi & Leung, 2007). High reliance on financial information results in higher demand of quality reporting (Alareeni, 2018), as in financial statements should not include asymmetric information and earnings manipulation (Lawal, Nwanji, Opeyemi, & Adama, 2018).

Earnings manipulation is an act of management to manipulate earnings to report more favorable results (Beneish, 1999), and one of the methods include earnings management. Earnings management increases informational asymmetries between outsiders and insiders, causing adverse consequences including shareholders' wealth deterioration (Abad, Lucas-Pérez, Minguez-Vera, & Yagüe, 2017). Its pertinence leads to its popularity in being widely reviewed and evaluated in accounting literatures (Obigbemi, Omolehinwa, Mukoro, Ben-Caleb, & Olusanmi, 2016). This practice can occur in the preparation of financial statements using accrual basis (Gao, Gao, & Wang, 2017), and it is called accrual earnings management.

Several cases of known earnings management have occurred in Indonesia. The most recent one comes from a well-known Indonesian airline company, PT Garuda Indonesia Tbk (Hartomo, 2019). The case started in early April 2019 when the financial statement of 2018 was published, showing a net income amounted to USD 809.85 thousand despite its net loss in 2017 that amounted to USD 216.5 thousand. On the other hand, two commissioners of PT Garuda Indonesia believed the 2018 financial statement is not prepared in accordance with Financial Accounting Standard (PSAK). After several findings and processes, PT Garuda Indonesia was found recording accounts payable amounting to USD 239 million

from PT Mahata Aero Teknologi as revenue. The case ended with Financial Services Authority (OJK), Indonesia Stock Exchange, and Minister of Finance giving sanctions towards PT Garuda Indonesia, Kasner Sirumapea (a public accountant), and Tanubrata, Susanto, Fahmi, Bambang, and Partners Public Accounting Firm. From this case, it can be seen that earnings management is something that can be detected by of corporate governance, and by checking the possible abnormalities.

Due to cases of earnings management, the need to understand the determinants of earnings management emerged, including understanding of the nature of the factors, its affecting levels, and the direction of its influence (Dang, Hoang, & Tran, 2017). All of which are in order for financial statement users to obtain wider insights before making economic decisions. In developed countries, earnings management has been studied extensively; however, in developing countries like Indonesia, only a few studies have been conducted. This remain true especially for relation of topic specific to ownership structure and board of directors' characteristics as determinants toward earnings management. These situations hence motivate writer to conduct this research with the topic of earnings management and to obtain better insights regarding the influence of institutional ownership, managerial ownership, foreign ownership, board of directors' meeting, board of directors' size, female board of directors, firm size, return on asset, leverage, and audit quality on earnings management.

Agency Theory

Firms were originally owned and managed by same parties, however as firms grew, agency divergence arose between agents and principals (Godfrey, Hodgson, Tarca, Hamilton, & Holmes, 2010), leading to firms roles as of contracts for agreements between different stakeholders (Megginson, 1997). This divergence causes agency theory emergence. Agency theory studies about agency problems arising from conflict of interest between principal and agents when both parties are utility maximizers (Linder & Foss, 2015). This occurs in an agency relationship where agents are under contact to perform service and decision making in the place of principals after authority delegation (Jensen & Meckling, 1976).

As agents are not the real bearer of wealth effects of their choices (Panda & Leepsa, 2017) and the existence of asymmetric information due to agents being closer to the firms operations, there is opportunity for agents to engage in self-interested behavior (Juhmani, 2017), which will incur agency costs (Bendickson, Muldoon, Liguori, & Davis, 2016). Jensen *et al.* (1976) defined agency costs as the sum of (1) the monitoring expenditures by the principal; (2) the bonding expenditures by the agent; and (3) the residual loss. One of practices made possible due to this issue, and in turn corroborate agency problems is earnings managements.

Earnings Management

Earnings management is an practice by management to maximize loopholes in reporting standards with self-interested purpose at the costs of direct or indirect stakeholders (Obigbemi *et al.*, 2016). This unethical intentional practice cause financial statements alteration (Bello, 2011), which incite problem as stakeholders are being misled in the firms' underlying economic performance and adversely influences outcomes which depend on those information (Healy & Wahlen, 1999). Saona, Muro, and Alvarado (2019) considered earnings management as the direct consequence of agency problems.

There are several means for managers to engage in earnings management, including real and accrual earnings management. Roychowdhury (2006) pointed out real earnings management involves actual departures from normal operational practices, while accrual earnings management put more emphasize in exploiting accounting accruals (Anwar & Buvanendra, 2019). It is also called cosmetic earnings management as it doesn't involve actual cash flow consequences (Subramanyam & Wild, 2009).

Institutional Ownership and Earnings Management

Institutional ownership defined as shares owned by institutional shareholders (Suwana, Purnomosidhi, & Mardiyati, 2017), usually in proportion compared to the firm's outstanding shares (Farooque, Suyono, & Rosita, 2013). It is considered as important governance mechanism (Anwar & Buvanendra, 2019), as institutions have higher monitoring power to prevent earnings management practices (San Martin Reyna, 2018).

Anwar and Buvanendra (2019) and Alzoubi (2016) found institutional ownership had a negative significant relation with earnings management. It means institutional ownership helps reduce earnings management, due to big institutional investors will actively monitor their investments. However, Pradipta (2019) and Asitalia and Trisnawati (2017) found insignificant relation between institutional ownership and earnings management in Indonesia. The same results were obtained in Indonesia by Firnanti (2017), Almalita (2017) and Guna and Herawaty (2010).

Ha₁: Institutional Ownership has influence on earnings management.

Managerial Ownership and Earnings Management

Managerial ownership is defined as shares owned by the firm's management in proportion to the outstanding shares (Mueller & Spitz-Oener, 2006), typically considered as corporate governance mechanism to prevent earnings management practices. As managers owned the firm's shares, their goals will align to shareholders' interest (Anwar & Buvanendra, 2019).

Anwar and Buvanendra (2019) found a significant negative relation between managerial ownership and earnings management. Contrary to that, Ilmas, Tahir, Asrar-ul-Haq, and McMillan (2018) found that managerial ownership had a significant positive effect toward earnings management. Meanwhile, Nugroho and Eko (2012), Asitalia and Trisnawati (2017), Yunietha and Palupi (2017), and Napitupulu (2012) found that managerial ownership did not show a significant effect on earnings management practices in Indonesia, due to the fact managerial ownership made up a small amount of total ownership.

Ha₂: Managerial Ownership has influence on earnings management.

Foreign Ownership and Earnings Management

Foreign ownership is the proportion of shares being owned by individuals or institutions that have foreign status in term of the firms' country (Sumilat & Destriana, 2017). Foreign investors are perceived as effective monitoring unit to prevent earnings management, due to their creativity in seeking information (Anwar & Buvanendra, 2019).

In line with that, Alzoubi (2016) and Alexander (2019) researches showed that foreign ownership has a significant negative impact on earnings management. However, Anwar and Buvanendra (2019) and Farouk and Bashir (2017) found otherwise, probably due to high monitoring costs incurred by foreign investors leading to bigger chance for management to do opportunistic behavior. Lack of managerial know-how, financial resources, and expertise of foreign investors, and possibility of foreign investors only interested in short-term returns might also affect these findings. The result obtained was different in Malaysian companies (Mohd Ali, Mohd Salleh, & Hassan, 2008), showing an insignificant relationship between foreign ownership and earnings management.

Ha₃: Foreign Ownership has influence on earnings management.

Number of Board Meetings and Earnings Management

Obigbemi *et al.* (2016) defined board meeting as the routine formal meeting held by board of directors to review performance, discuss policy issues, and address problems and other inquiries. Higher frequency of board meetings is often perceived as indicators of board members diligence. This diligence will create more powerful monitoring power, making operations and preparation of financial statements are more controlled, therefore lowering earnings management practices (Obigbemi *et al.*, 2016).

Obigbemi *et al.* (2016) and Ngamchom (2015) found positive significant relationship between number of board meetings and earnings management, indicating that board that use too much time in board meeting will then have less time to actually oversee management's performance (Jensen, 1993). On the other hand, Xie *et al.* (2003), Gulzar and Zongjun (2011), and Kankanamage (2016) found a significant negative relationship, showing that board acts as effective monitors. Alzoubi (2016) found insignificant relationship between board meetings and earnings management, indicating lack of effectiveness of board meeting due to the fact that daily duties restricts members time to set board meeting agenda.

Ha₄: Board of Directors' Meeting has influence on earnings management.

Board of Directors' Size and Earnings Management

Board of directors are those who have highest rank in internal management system, their tasks include supervising and controlling the management (Nugroho & Eko, 2011). Board size is the number of members in its board of directors. The impact of board size toward earnings management is not conclusive (Saona *et al.* 2019). Some suggests more board members mean more parties that act as monitoring units to prevent earnings management. Others argued smaller board size will be more dynamic. Their monitoring activities will be organized and aligned, making them more effective in lowering earnings management practices.

Gulzar and Zongjun (2011) found a significant positive relationship between board size and earnings management practices. On the other hand, Khosheghbal, Amiri, and Homayoon (2017) found that there is no significant effect of board size on earnings management of companies in Tehran Stock Exchange. The same result of insignificant relation between board size and earnings management was also found by Asitalia and Trisnawati (2017). In Indonesia, Yunietha and Palupi (2017) found insignificant relationship between board size and earnings management. On the contrary, Obigbemi *et al.* (2016) and Saona *et al.* (2019) found board size had a significant negative effect toward earnings management.

Ha₅: Board of Directors' Size has influence on earnings management.

Female Board of Directors and Earnings Management

Saona *et al.* (2019) defined female directors as the proportion of female board members in the board of directors. Female board of directors actively participate and present in a board of directors as one of the board members can lower earnings management, because female tends to be more sensitive toward ethical issues (Abad *et al.*, 2017).

Obigbemi *et al.* (2016), Ocak and Arıkboğa (2017), Temiz, Dalkılıç, and Hacıhasanoğlu (2018), Saona *et al.* (2019), and Gulzar and Zongjun (2011) found that the existence of females in board of directors had negative significant impact on earnings management. The possible reason is the fact that women tend have higher moral and more sensitive toward manipulative practices. However, a study conducted in Malaysian listed companies showed a different result that there is insignificant relation between female board members and earnings management (Abdullah & Ismail, 2016). The same result was obtain by Arun, Almahrog, and Ali-aribi (2015).

Ha₆: Female Board of Directors has influence on earnings management.

Firm Size and Earnings Management

Firm size is an indicator to determine the company capabilities to manage stockholders investment by improving their welfare, and it can be shown by the firm total assets (Farooque *et al.*, 2013). Bassiouny (2016) stated that bigger firm have stronger internal control which will result in lower earnings management practices. However, San Martin Reyna (2018) stated larger firms face greater expectation, heightening the pressure to deliver good performance in financial statements, making them inclined to conduct earnings management practices.

Uwuigbe, Uwuigbe, and Bernard (2015) and San Martin Reyna (2018) found a significant positive relationship between firm size and earnings management. This implies that growing firms have higher motivations to engage in earnings management practice because of the complexity of their transactions, believing that it is harder for users to identify overstatement. Another possible explanation is the bigger the firm, the more pressure the firm has to conduct earnings management. Contrary to those, Yasser and Soliman (2018) and Anwar and Buvanendra (2019) found a significant negative relationship between firm size and earnings management, Alareeni (2018) found that the relationship between firm size and earnings management are not significant. Bassiouny (2016), Juhmani (2017), Saniamisha and Tjhai (2019), and Llukani (2013) also got the same results.

Ha₇: Firm Size has influence on earnings management.

Return on Asset and Earnings Management

Return on asset is one of profitability ratio, measuring the capabilities of the management in generating earnings by utilizing its available assets (Yuliana & Trisnawati, 2015). Therefore it is usually measured by net income divided by total assets (Susanto, 2013). The underlying assumption of management wanting to get bonuses from their performance will cause management to pursue earnings management to obtain higher return on asset, causing return on asset to have positive correlation with earnings management. However, Susanto (2013) stated that investors do realize earnings reported in financial statement have susceptibility to management manipulation, therefore return on asset will not affect earnings management.

Florencia and Susanty (2019), Firnanti (2017), Guna and Herawaty (2010) found positive significant relation between return on asset and earnings management. Conversely, Alzoubi (2016) and Ali, Chen, and Radhakrishnan (2007) found negative influence between return on asset and earnings management. The reason is because of the fact that companies with already high return on asset as in profitability, there will be no motivation anymore for the management to conduct earnings management practices. However, Susanto (2013) and Chandra and Djashan (2018) found no correlation. The reason is because investors realize the possibility of manipulation in earnings reported in financial statement due to its accrual nature, so there will be no reason for management to be motivated based on this.

Ha₈: Return on Asset has influence on earnings management.

Leverage and Earnings Management

According to Mustamin and Usman (2019), financial leverage is a ratio used to determine how much the firm's assets are financed by debt. Leverage is a ratio between total liabilities and total asset, therefore the higher the leverage, the higher the total liabilities of a firm (Yuliana & Trisnawati, 2015). Khanh and Thu (2019) stated higher leverage shows higher liabilities, which might increase the

existence of debt covenants that the companies must abide to. This can pressure companies to manage their earnings to meet those debt covenants.

Uwuigbe *et al.* (2015), Juhmani (2017), and Chandra and Djashan (2018) found insignificant relationship between leverage and earnings management. There are many researches that obtained significant positive correlation as well. Bassiouny (2016) found a significant positive relation between financial leverage and earnings management. Yasser and Soliman (2018), San Martin Reyna (2018) and Anwar and Buvanendra (2019) also found significant positive relation between leverage and earnings management. The higher the leverage, the more associated companies with earnings management. The same result was also obtained by Mustamin and Usman (2019), in line with agency theory.

Ha₉: Leverage has influence on earnings management.

Audit Quality and Earnings Management

Suseno (2013) emphasized audit quality as the ability of an auditor to identify material misstatement in financial statements, and also the willingness of auditors to issue unbiased audit opinion based on the true audit results. Yasser and Soliman (2018) suggested that high quality audit is often associated with big four auditors, because they have greater number of clients leading to them having higher independence. In addition, big four auditors have more to lose and need to maintain their reputation. From the technical side, big four auditors have more resources and therefore can provide better services. Due to those reasons, big four auditors will conduct more thorough audit and discover earnings management practices during their audit.

Bassiouny (2016) and Yasser and Soliman (2018) found that firm's audit quality has insignificant impact toward earnings management, meaning that big four could not constrain earnings management practices in Egyptian companies. In Indonesia, Yunietha and Palupi (2017) and Napitupulu (2012) obtained the same result, indicating that earnings management remain unaffected regardless of whether firms audited by big four or non-big four auditors.

Uniquely, Lisboa (2016) found that audit from big four companies has significant positive impact toward earnings management. The reason possibly due to the fact that the samples were taken during financial crisis period. This could due to the fact that big four auditors have dependency on their clients, the firms. Anwar and Buvanendra (2019) and Guna and Herawaty (2010) obtained significant negative relation between big four auditors and earnings management, it means that big four auditors are likely to disclose material errors, leading to discouragement toward earnings management.

Ha₁₀: Audit Quality has influence on earnings management.

RESEARCH METHOD

The population used for this research is all non-financial companies listed in Indonesia Stock Exchange from 2017 to 2019. The samples are selected by purposive sampling based on criteria summarized below.

Table 1 shows that the population of this research are 436 non-financial companies consistently listed in Indonesia Stock Exchange from 2016 to 2019. After filtering the population with the criteria above, the number of companies that pass the filter and therefore will be used as samples in this research is 114 firms, which is equivalent to 342 data if multiplied by three years.

Table 1
Sample Selection Procedure

Criteria Description	Total Firms	Total Data
Non-financial companies consistently listed in Indonesia Stock Exchange from 2016 to 2019	436	1,308
Not consistently published financial statements ended as of December 31 st from 2016 to 2019	(87)	(261)
Not consistently used IDR currency in the financial statements from 2016 to 2019	(1)	(3)
Not consistently disclose managerial ownership from 2017 to 2019	(179)	(537)
Not consistently disclose institutional ownership from 2017 to 2019	(12)	(36)
Not consistently disclose foreign ownership from 2017 to 2019	(43)	(129)
Number of sample firms used	114	342

Source: Data is obtained and processed from IDX (www.idx.co.id)

Operational Definition of Variables and Measurement

The dependent variable of this research is earnings management. The proxy used for earnings management is the absolute value of discretionary accruals (ABSDACC) estimated through the performance-matched discretionary accrual model of Kothari *et al.* (2005), thereby adopting the same proxy with Anwar and Buvanendra's (2019) research. According to Alves (2012), this proxy is the most commonly used proxy for earnings management. Discretionary accruals (*DACC*) are calculated by following several steps. The first step is to find total accruals. Total accruals is considered as a prerequisite to run the regression (Anwar & Buvanendra, 2019). Cash flow approach is adopted to evaluate total accruals (*TA*). According to cash flow approach, *TA* is the difference between net income before extraordinary items (*NI*) and cash flow from operating activities (*OCF*). Therefore to calculate total accruals, the formula is as follows:

$$TA = NI - OCF$$

After total accruals are found, then the next step is to find the regression residuals from the equation below. The regression residuals obtain is considered as the discretionary accruals. The equation is as follows:

$$\frac{TA_{it}}{A_{it-1}} = \beta_0 + \beta_{1i} \left[\frac{1}{A_{it-1}} \right] + \beta_{2i} \left[\frac{\Delta REV_{it} - \Delta REC_{it}}{A_{it-1}} \right] + \beta_{3i} \left[\frac{PPE_{it}}{A_{it-1}} \right] + \beta_4 ROA_{it} + \varepsilon_{it}$$

Where,

TA_{it}	Total accruals for the company <i>i</i> in the year <i>t</i>
A_{it-1}	Total assets for the company <i>i</i> at the end of year <i>t-1</i>
β_0	Intercept
$\beta_1 - \beta_4$	Coefficients
ΔREV_{it}	Change in revenue for the company <i>i</i> between <i>t-1</i> and <i>t</i>
ΔREC_{it}	Change in receivables for the company <i>i</i> between year <i>t-1</i> and <i>t</i>
PPE_{it}	Gross property, plant, and equipment for the company <i>i</i> in the year <i>t</i>
ROA_{it}	Return on assets for the company <i>i</i> in year <i>t</i>
ε_{it}	Residual for the company <i>i</i> in year <i>t</i>

Institutional Ownership

Institutional ownership is the total percentage of common stock held by institutional shareholders (Anwar & Buvanendra, 2019). The same measurement was used in research conducted by Firnanti (2017). Institutional ownership is measured by ratio scale with the measurement as follows:

$$INS = \frac{\text{Common stock held by institutional shareholders}}{\text{Total outstanding shares}} \times 100\%$$

Managerial Ownership

Managerial ownership is the total percentage of common stock directly owned by management (Guna & Herawaty, 2010). The definition from Nugroho and Eko (2011) is the same, that is common stocks owned by management which includes board of directors and board of commissioners. Therefore, managerial ownership is measured by a ratio scale and measured as follows:

$$MAN = \frac{\text{Common stock owned by management}}{\text{Total outstanding shares}} \times 100\%$$

Foreign Ownership

Foreign ownership is the total percentage of common stock owned by foreign (non-resident) shareholders (Anwar & Buvanendra, 2019). The same measurement was used by Alzoubi (2016). Foreign ownership is measured by a ratio scale and measured as follows:

$$FOR = \frac{\text{Common stock held by foreign shareholders}}{\text{Total outstanding shares}} \times 100\%$$

Number of Board Meetings

Number of board meetings is the frequency of board meetings held in a firm in the respective financial year (Obigbemi *et al.*, 2016). Board meetings is measured by a ratio scale, and the measurement for board of directors' meeting is as follows:

$$BMEET = \text{Number of board of directors' meeting in } t \text{ year}$$

Board of Directors' Size

Board of directors' size is measured by the number of board members consisting a particular firm board of directors (Saona *et al.*, 2019). Board size is measured by a ratio scale and therefore the proxy used is as follows:

$$BSIZE = \text{Number of members in board of directors}$$

Female Board of Directors

Female board of directors is the proportion of female board members in the board of directors of a particular firm (Saona *et al.*, 2019). The same proxy will be used in this research. Female board of directors is measured by a ratio scale and the measurement of female board of directors is as follows:

$$BFEM = \frac{\text{Number of female board members}}{\text{Number of members in board of directors}}$$

Firm Size

Firm size is measured by the natural logarithm of total assets, according to Anwar and Buvanendra (2019) and Alzoubi (2016). Firm size is measured by a ratio scale and thus the proxy used to measure firm size is as follows:

$$SIZE = \text{Natural logarithm of total assets at year end}$$

Return on Asset

Return on asset is measured by dividing total assets of the firm in the respective year with net income as in profit after tax of the same year (Anwar & Buvanendra, 2019) and (Alzoubi 2016). Return on asset is measured by a ratio scale and thus the proxy used to measure return on asset is as follows:

$$ROA = \frac{\text{Net Income (Profit After Tax)}}{\text{Total Assets}}$$

Leverage

Leverage describes the relationship between total company's liabilities and total company's asset. Financial leverage is measured by the ratio of total liabilities to total assets (Anwar & Buvanendra 2019). Financial leverage is measured by a ratio scale (Alzoubi, 2016) and the proxy to be used as the measurement for financial leverage is as follows:

$$LEV = \frac{\text{Total liabilities}}{\text{Total assets}}$$

Audit Quality

Audit quality is often associated with big four auditors (Yasser & Soliman, 2018). The same proxy was used by Anwar and Buvanendra (2019). In determining audit quality, big four auditors will be used as the proxy. If the firm is audited by big four auditors, then this variable will be coded as 1, otherwise audit quality (AQ) will be coded as 0. This research will follow the same proxy to measure audit quality. Audit quality is measured by nominal scale.

Data Analysis Method

After the data is collected, the data is processed using analysis software. Data analysis method used in this research is multiple regression to examine the influence of several independent variables to one dependent variable in this context earnings management. The empirical model used in this research to test the hypotheses are:

$$ABSDACC = \beta_0 + \beta_1(INS) + \beta_2(MAN) + \beta_3(FOR) + \beta_4(BMEET) + \beta_5(BSIZE) + \beta_6(BFEM) + \beta_7(SIZE) + \beta_8(ROA) + \beta_9(LEV) + \beta_{10}(AQ) + \varepsilon$$

Where,
ABSDACC = absolute value of discretionary accruals
 β_0 = intercept
 β_1 - β_{11} = variable coefficients
INS = institutional ownership
MAN = managerial ownership
FOR = foreign ownership
BMEET = board of directors' meeting
BSIZE = board of directors' size
BFEM = female board of directors
SIZE = firm size
ROA = return on asset
LEV = leverage
AQ = audit quality
 ε = residual of

FINDINGS

Descriptive statistics is used to showed about the mean, minimum, maximum, and standard deviation of the data collected. The result of descriptive statistics can be seen on Table 2.

Table 2
Descriptive Statistics

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Deviation</i>
ABSDACC	342	0.0000000	0.3306256	0.0528748	0.0516323
INS	342	0.0004902	0.9993591	0.7767548	0.2413272
MAN	342	0.0000001	0.8492501	0.0865933	0.1716691
FOR	342	0.0000018	0.9452213	0.2636469	0.2693380
BMEET	342	4.0000000	60.0000000	18.9400000	12.0370000
BSIZE	342	2.0000000	14.0000000	5.3500000	2.0220000
BFEM	342	0.0000000	0.6666667	0.1541420	0.1938457
SIZE	342	24.6236231	33.4945330	29.0982607	1.7815774
ROA	342	-1.4652625	0.4666014	0.0320537	0.1316290
LEV	342	0.0063616	1.5385151	0.4652092	0.2085841
AQ	342	0.0000000	1.0000000	0.3500000	0.4770000

Table 3
Correlation Coefficient Test

Model	<i>R</i>	<i>R Square</i>	Adjusted <i>R Square</i>	Std. Error of the Estimate
1	0.272 ^a	0.074	0.046	0.050

a. Predictors: (Constant), *INS*, *MAN*, *FOR*, *BMEET*, *BSIZE*, *BFEM*, *SIZE*, *ROA*, *LEV*, *AQ*

b. Dependent Variable: *DACC*

DISCUSSION

The *t-test* result shows significance level of institutional ownership (*INS*) is 0.070. It is above 0.050. H_{a1} is rejected. This means institutional ownership has no influence to earnings management. This might happen due to consistently similar level of institutional ownership throughout firms in Indonesia.

The *t-test* result shows significance level of managerial ownership (MAN) is 0.294. It is above 0.050. Ha_2 is rejected. This means managerial ownership has no influence to earnings management. This result may be due to the fact that managerial ownership level in Indonesia is small.

The *t-test* result shows significance level of foreign ownership (FOR) is 0.609. It is above 0.050. Ha_3 is rejected. This means foreign ownership has no influence to earnings management. Possible reasons include higher monitoring costs incurred by foreign investors, lack of insights from the foreign parties, or foreign investors more interested in short term gains.

Table 4
***t*-Test Result**

Variable	<i>B</i>	Sig.	Decision
INS	0.000	0.070	Ha_1 rejected
MAN	0.000	0.294	Ha_2 rejected
FOR	-0.0001	0.609	Ha_3 rejected
BMEET	-0.0001	0.692	Ha_4 rejected
BSIZE	-0.001	0.446	Ha_5 rejected
BFEM	0.018	0.199	Ha_6 rejected
SIZE	-0.007	0.002	Ha_7 accepted
ROA	0.021	0.365	Ha_8 rejected
LEV	0.040	0.006	Ha_9 accepted
AQ	0.006	0.356	Ha_{10} rejected

Dependent variable DACC

The *t-test* result shows significance level of board of directors' meeting (BMEET) is 0.692. It is above 0.050. Ha_4 is rejected. This means board of directors' meeting has no influence to earnings management, possibly due to no real correlation between the frequency of meetings to earnings management prevention.

The *t-test* result shows significance level of board of directors' size (BSIZE) is 0.446. It is above 0.050. Ha_5 is rejected. This means board of directors' size has no influence to earnings management. This means regardless of the board size, earnings management remain unaffected.

The *t-test* result shows significance level of female board of directors (BFEM) is 0.199. It is above 0.050. Ha_6 is rejected. This means female board of directors has no influence to earnings management, possibly due to low number of female board members existence in Indonesian listed firms.

The *t-test* result shows significance level of firm size (SIZE) is 0.002. It is below 0.050. Ha_7 is accepted. This means firm size has influence to earnings management. The negative coefficient showed that firm size has negative significant influence on earnings management. It means the bigger the firm, the lower the earnings management practices. Larger firms may have stronger internal control system and more competent internal auditors compared to smaller firms. This will lead to stronger corporate governance, helping in publishing reliable and high quality financial statement. Larger firms are also usually audited by big four, causing effective audit which will prevent earnings management better. Another reason would be due to higher reputation cost in larger firms. These three reasons prevent larger firms to engage in earnings management practices (Bassiouny, 2016).

The *t-test* result showed significance level of return on asset (ROA) is 0.365. It is above 0.050. Ha_8 is rejected. This means return on asset has no influence to earnings management. The reason is because investors realize the possibility of manipulation in earnings reported in financial statement due to its accrual nature, so there will be no reason for management to be motivated based on this.

The *t-test* result showed significance level of leverage (LEV) is 0.006. It is below 0.050. H_{a9} is accepted. This means leverage has influence to earnings management. The positive coefficient showed that leverage has positive significant influence on earnings management. It means the higher the leverage, the higher the earnings management practices. High leverage means higher proportion of the firm's assets being financed using liabilities, including debt. This might increase the existence of debt covenants that the companies must abide to, pressuring companies to make sure the performance look well and to meet those covenants (Khanh & Thu, 2019) Therefore, higher leverage increase the possibility of earnings management practices.

The *t-test* result showed significance level of audit quality (AQ) is 0.356. It is above 0.050. H_{a10} is rejected. This means audit quality has no influence to earnings management. Possible reason includes other characteristics of audit might affect earnings management more including audit tenure, industry specialization, audit committee characteristics, and audit tenure.

CONCLUSION

Based on the result of this research which is conducted on 114 non-financial companies consistently listed in Indonesia Stock Exchange from 2017 to 2019, it can be concluded that firm size and leverage have influence on earnings management. Meanwhile, other variables including institutional ownership, managerial ownership, foreign ownership, board of directors' meeting, board of directors' size, female board of directors, return on asset, and audit quality have no influences toward earnings management.

In sum, findings of this study highlight the significance of firm factors, especially firm size and leverage. Firm size helps to prevent earnings management practice. Larger firms may have stronger internal control in place including organized corporate governance and internal audit, coupled with them having higher reputation cost to protect. These reasons cause larger firms to have lower earnings management practices. On the other hand, firms with higher leverage tend to practice earnings management. Such findings may occur as the existence of higher leverage may pressure firms to keep up performance by conduct earnings management to abide to the existing debt covenants. Opposed to the expectation, ownership structure and board of directors' characteristics have no influence on earnings management. The reasons could include low presence or impact of such variables in Indonesian companies and consistently similar level of the variables throughout the companies in Indonesia. The findings of this study recommend that both regulators and policy-makers need to consider firm factors and the different impacts they have on earnings management. At the same time, investors could make their future investing decisions by considering that firm size helps prevent earnings management whereas leverage increase the possibility of such practices.

This study only focuses on accrual-based earnings management, while there is another type of earnings management known as real activity-based earnings management as proposed by Roychowdhury (2006). In addition, several limitations exist in this research, including (1) the data of this research are not normally distributed; (2) this research contains heteroscedasticity problem; and (3) only two independent variables are found having influence on earnings management, weak correlation between independent variables and earnings management is also found as shown by the low adjusted *R-Square* (4.6%). Therefore, as a recommendation, future research could study the impact of ownership structure, board of directors' characteristics, and firm factors on real activity-based earnings management. Finally, the existing limitations may be overcome by adding data to obtain higher generalization to overcome normality issues and conduct transformation data procedures to solve heteroscedasticity problem.

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