INFORMATION ASYMMETRY, INSTITUTIONAL OWNERSHIP, RELATED PARTY TRANSACTIONS AND THE BOARD SIZE TO REAL EARNINGS MANAGEMENT

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ABSTRACT

Purpose – The purpose of this study is to examine the relationship between information asymmetry, institutional ownership, related party transactions and the board size on real earnings management. This research was conducted because there are still inconsistencies in the results of previous studies.

Research Method – This study uses a sample of manufacturing companies listed on the IDX (Indonesia Stock Exchange) in the period 2018-2020. The sample in this study was obtained using purposive sampling method. There are 213 data that meet the sample selection criteria. As for testing the hypothesis of this study using multiple regression analysis.

Findings – The results of this study indicate that information asymmetry, institutional ownership and related party transactions have a positive effect on real earnings management. Meanwhile, the board size has no relationship to real earnings management.

Implication – The implication of this research is to provide additional perspective on the positive effect of information asymmetry, institutional ownership and (RPT) related party transactions on real earnings management. The high level of information asymmetry, institutional ownership and related party transactions will encourage real earnings management. In addition, the implications of this study for financial statements user, especially to decisions making for investors, are to pay attention to and consider factors that can affect real earnings management such as the high level of information asymmetry, institutional ownership and the related party transactions size.

Keywords: information asymmetry, institutional ownership, related party transactions, board size, REM

JEL code: D82; G32

INTRODUCTION

Manipulation of financial statements is an accounting issue that requires in-depth attention and study because it can provide misleading information for users of financial statements (Zamri et al., 2013). One of the important accounting information needed for users of financial statements is earnings. Earnings is one of the accounting information that plays an important role in a financial report because it is often used as a basis for consideration in decision making. Xu et al. (2007) stated that information about earnings can be used as a benchmark for a company's financial performance, a basis for decision making for investors and creditors, or as a basis for giving bonuses to management. Therefore, various parties in the company are encouraged to carry out earnings management in order to maximize their respective interests or welfare.

The act of earnings manipulation is known as earnings management. Earnings management consists of two ways. Accrual earnings management and real earnings

management (REM). Accrual earnings management is earnings manipulation by utilizing the accrual side of accounting such as choosing accounting policies or methods that can affect accounting earnings. While REM is earnings manipulation by giving massive discounts so as to increase cash sales, carry out large-scale production and cut discretionary budgetary costs (Roychowdhury, 2006; Cohen et al., 2008).

According to Roychowdhury (2006) earnings management through real activities is an action that is contrary to normal operational practices which aims to make stakeholders believe that the financial statements presented are in accorandce with the operational activities carried out by the company. Earnings management through real activities is carried out with three approaches, namely through sales, production costs, and discretionary expenditures. However, REM becomes a form of earnings manipulation that is difficult to detect directly because it seems to fulfill the company's own policy strategy.

The difficulty of detecting REM practices (Kim and Sohn, 2013) and the impact of REM, such as a decrease in the company's competitive advantage in the future (Gunny, 2010; Sutrisno, 2019), as well as a decrease in the level of confidence in users of financial statements are the impetus for research regarding REM in order to provide additional insight on the factors that can increase the occurrence of REM. Research on REM is also still an important research issue to study in more depth.

This study aims to examine the relationship of information asymmetry, institutional ownership, related party transactions and the board size to REM which is still not consistent with the results of previous studies. Information asymmetry is a condition of information inequality between internal and external parties. The state of information asymmetry can be exploited by management for personal gain. However, several studies have shown inconsistent results. Trisnawati et al. (2016); Nuanpradit (2018) shows that information asymmetry has a positive effect on REM, while Jasman and Amin (2017) state that information asymmetry actually has a negative effect on REM. Meanwhile, Puspitasari (2019) states that information asymmetry has no effect on REM. Likewise, institutional ownership is predicted to mitigate the impetus for REM. However, several previous studies have shown inconsistent results. Susanto and Pradipta (2016); Swai and Mbogela (2016) show that institutional ownership reduces the occurrence of REM because institutional ownership is a supervisory function for company management to maximize the company's interests. Meanwhile, Nugrahanti and Puspitasari (2018); Setiawati and Lieany (2016) show that institutional ownership has a positive effect on REM. On the other hand, Nia et al. (2017) show that there is no effect between institutional ownership on REM.

Related party transactions can be an opportunity or opportunity for management to perform REM. However, several studies show different results. Limanto and Herusetya (2017); Abdullah and Hussin (2015) show that related party transactions increases the occurrence of REM. On the other hand, El-Helaly et al. (2018) states that related party transactions have a negative effect on REM. The involvement of related parties can also be a potential and opportunity to increase transactions that benefit both parties so that company management does not need to do REM to increase profits. Meanwhile, the board size is predicted to be able to tighten the monitoring function within the company so that management has little opportunity to perform REM which can harm the company in the future. Several previous studies have shown that the board size to restrict REM (Swai and Mbogela, 2016; Susanto and Pradipta, 2016; Chouaibi et al., 2016).

This study uses a sample of Indonesia manufacturing companies listed on the IDX in the period 2016-2020. This research is expected to provide empirical evidence regarding the factors that influence REM such as information asymmetry, institutional ownership, related party transactions and the board size. This study contributes to providing additional knowledge about the factors that can affect REM, namely information asymmetry, institutional ownership and related party transactions. Knowledge of the factors that influence REM can be additional literature that can be used as a reference for further research. In addition, this research is expected to be a consideration for investors in investment decisions by considering factors that can affect REM which have a negative impact on the company in the future.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT Agency Theory

Agency theory is based on contractual relationships among all parts of the company, such as shareholders and management. Jensen and Meckling (1976) define agency relationship as a contract that involves two or more people involving the principal and the agent. The parties associated with this agency relationship are utility maximizers, so the agent himself does not always act to fulfill the interests of the principal. For this reason, the principal creates incentives for agents and monitors to restrict the deviant activities of the agent that can harm the company, such as earnings management actions.

Real Earnings Management

Scott (2015) explains that earnings management from the perspective of financial reporting and contracts. In the perspective of financial reporting, management performs earnings management to avoid losses suffered by the company and to earn earnings meeting targets by the owner of the company. Earnings management aims to report fictitious earnings to trick stakeholders into seeing positive financial reporting from management. Earnings management itself is considered a key indicator in reporting the financial quality of a company.

Roychowdhury (2006) states that earnings management occurs when company management uses judgment in financial reporting and transactions to modify financial statements, provide misstatement of information to stakeholders in concluding or analyzing company performance or to influence contractual results that depend on accounting reporting. Earnings management also affects the economic performance of companies that are reported through financial statements with the aim of influencing contractual profits or to manipulate so that stakeholders directly believe in the financial statements provided. In addition, earnings management can be expressed as an intervention in financial reporting. Earnings management through real activities is a management action that deviates from operational activities that should be carried out to manipulate financial statements so that stakeholders can believe that the company's performance is good and also to meet the desired earnings criteria. Earnings management through real activities can be done with three methods, cash flow manipulation, production costs, and discretionary spending. Companies that manipulate earnings in real terms will manipulate their earnings to achieve certain targets, although they can reduce the value of the company itself because actions to increase earnings in the current period can have a negative effect on future cash flows (Gunny, 2010). For example, a large price discount to increase the number of sales and to meet short-term earnings targets can make customers expect continuous discounts in the future. It can reduce the amount of revenue earned from future sales. Production of too much inventory can also make the company to sell its inventory in a row in one period which increases the cost of holding the inventory itself. Likewise, cutting budgetary expenditures can increase earnings in the current period, but can eliminate the future competitive advantage (Gunny, 2010; Sutrisno, 2019).

Asymmetry Information and Real Earnings Management

Information asymmetry is a condition where company management has more information about the company and its prospects in the future than other stakeholders. This condition provides an opportunity for company management to use the private information to manipulate financial reporting in an effort to maximize their interests (Dewi and Chandra, 2016). Several previous studies showed inconsistent results such as Trisnawati *et al.* (2016); Nuanpradit (2018) asymmetry information has a positive effect on REM, on the other hand Jasman and Amin (2017) state that asymmetry information has a negative effect on REM, while Puspitasari (2019) states that asymmetry information has no effect on REM. Based on the description above, the hypotheses of this research are:

Ha₁: There is an effect of asymmetry information on REM.

Institutional Ownership and Real Earnings Management

Institutional ownership is ownership of company shares by institutions or institutions which can provide a supervisory mechanism within the company. Institutional investors can carry out active supervision because institutional investors tend to invest in very large amounts so that the supervision carried out is certainly more active (Budi and Putri, 2018). This research was conducted by Nugrahanti and Puspitasari (2018); Setiawati and Lieany (2016) show that institutional ownership has a positive effect on REM, while Susanto and Pradipta (2016); Swai and Mbogela (2016) stated that institutional ownership reduces the occurrence of REM. On the other hand, Nia *et al.* (2017) stated that there was no effect between institutional ownership and REM. Based on the description above, the hypotheses of this research are: Ha₂: There is an effect of institutional ownership on REM.

Related Party Transaction and Real Earnings Management

A related party transaction is the distribution of resources, services, obligations to other entities in a special relationship, usually referring to the executive, board of directors, and major shareholders. Related party transactions themselves can provide benefits to companies in terms of daily company operational activities because they can reduce transaction costs, increase company operational efficiency and intangible resources (Limanto and Herusetya (2017). Research by (Limanto and Herusetya (2017); Abdullah and Hussin (2015) stated that related party transactions had a positive effect on REM, while El-Helaly et al. (2018) stated that related party transactions had a negative effect on REM.

Ha₃: There is an effect of related party transactions on REM.

Board Size and Real Earnings Management

Board size is an important part of the company that functions as a control mechanism. Too many boards can weaken the supervisory process in the company's operational activities and increase conflicts of interest, in addition to the limitations in communication can cause a decrease in company performance (Kharashgah et al. 2019). Research by Swai and Mbogela (2016); Susanto and Pradipta (2016); Chouaibi et al. (2016) stated that board size has a negative effect on REM. Based on the description above, the hypotheses of this research are: Ha4: There is an effect of board size on REM.

RESEARCH METHODOLOGY

This study takes a sample of manufacturing companies listed on the IDX in the period 2018 to 2020. A summary of sample selection is attached in the following table:

Description	Number of Companies	Number of Data
1. Manufacturing companies listed on the IDX from 2016 to 2020.	139	417
2. Inconsistent in submitting financial reports.	(7)	(21)
3. Does not issue financial statements as of December 31.	(3)	(9)
4. Has no institutional ownership.	(3)	(9)

Table 1. Sampling Selection

Description	Number of Companies	Number of Data
5. Not reporting profit.	(53)	(159)
6. Do not have complete data.	(2)	(6)
Total sample	71	213

Table 1 provides an overview of the stages of sampling using the purposive sampling method. There are 71 companies that meet the sampling criteria with the amount of data used in this study is 213 data. This study focuses on manufacturing companies because manufacturing companies have the data needed to calculate the total REM. The calculation of total REM, one of which is to calculate abnormal production, so data on the cost of goods sold and inventory are needed in manufacturing companies.

Real Earnings Management

Roychowdhury (2006) states that REM can be done using three methods, namely as follows:

1. Sales $\frac{CFO_p}{TA_{p-1}} = \beta_0 \frac{1}{TA_{p-1}} + \beta_1 \frac{SALES_p}{TA_{p-1}} + \beta_2 \frac{\Delta SALES_p}{TA_{p-1}} + \epsilon$ Information: CFO_p: Operating cash flows in current period TA_{p-1}: Total assets in previous period SALES_p: Sales in current period Δ SALES_p: Sales change in current period ε: Error 2. Discretionary Expenditures $\frac{\text{DISC}_{p}}{\text{TA}_{p-1}} = \beta_0 \frac{1}{\text{TA}_{p-1}} + \beta_1 \frac{\text{SALES}_{p-1}}{\text{TA}_{p-1}} + \varepsilon$ Information: DISC_p: Discretionary expenditures (advertising, R&D, sales & general expenditure) in current period TA_{p-1}: Total assets in previous period SALES_p: Sales in current period $\epsilon_{:}$ Error 3. Overproduction $\frac{PROD_p}{TA_{p-1}} = \beta_0 \frac{1}{TA_{p-1}} + \beta_1 \frac{SALES_{p-1}}{TA_{p-1}} + \beta_2 \frac{\Delta SALES_p}{TA_{p-1}} + \beta_3 \frac{\Delta SALES_{p-1}}{TA_{p-1}} + \epsilon$ Information: PROD_p: Production costs in current period (COGS+ Δ Inventory) TA_{p-1}: Total assets in previous period SALES_p: Sales in current period Δ SALES_p: Sales change in current period Δ SALES_{p-1}: Sales change in previous period ε: Error

The calculation of REM is measured using the three proxies described above. The residual value of the sales and discretionary expenditures proxy is multiplied by minus 1, because the lower of value the abnormal sales and abnormal discretionary expenditures indicates a high level of REM, while the higher abnormal production value indicates a REM level. Thus, for abnormal sales and discretionary expenditures, they are multiplied by minus 1

to equalize or facilitate interpretation. Calculation of REM using standardized residuals. Thus, the formula for calculating REM is as follows: REM = Abnormal Sales + Abnormal DISC + Abnormal PROD Information: REM: REM Abnormal Sales: Abnormal sales Abnormal DISC: Abnormal discretionary expenditures Abnormal PROD: Abnormal production cost

Asymmetry Information

Asymmetry information is an imbalance in access to private information that is not published to outside parties (Trisnawati et al., 2016). Information asymmetry between the company and outsiders provides opportunities for companies to take earnings management actions. Information asymmetry variable is measured by using the bid-ask spread. Measurement of information asymmetry refers to the research of Putri and Sujana (2018):

Bid-ask spread_{i,p}=
$$\frac{ask_{i,p} - bid_{i,p}}{(ask_{i,p} + bid_{i,p})/2} \times 100$$

Information:

Bid-ask spread_{i,p}: The bid-ask spread in current period (last trading day). Ask_{i,p}: The highest ask price of company shares in current period (last trading day).

Bid_{i,p}: The lowest bid price of company shares in current period (last trading day).

Institutional Ownership

Institutional ownership is share ownership by the institution (Budi and Putri, 2018). Institutional ownership is measured by dividing the number of institutional shares by the number of outstanding shares. The measurements of institutional ownership variables are taken from the research of Susanto and Pradipta (2016):

 $IO = \frac{Number of institutional shares}{Total outstanding shares}$

Related Party Transaction

A related party transaction is distribution of resources, services or obligations between parties in a special transaction (PSAK 7). This variable is measured by dividing the total related party transactions and total sales. Proxies for calculating related party transactions based on Limanto and Herusetya (2017):

$$RPT = \frac{Total RPT}{Total Sales_{p}}$$

Information:

RPT: Related Party Transaction

Total RPT: Total related party transaction (acquisition of assets, sales of assets and equity, trading relationship, cash payment or loan to related party). Total Sales_p: Total sales in current period

Board size

The board size is the part of the company that is tasked and responsible for monitoring and providing advice to the management and ensuring that the company has implemented Good Corporate Governance (GCG). The number of members of the board size in a company is adjusted to the circumstances of the company so that it is effective in decisions making. Measurement of board size based on research by Susanto and Pradipta (2016): Board size = Number of board of commissioners

This study uses several control variables:

Leverage

Leverage is the amount of liabilities owned by the company to carry out the company's operational activities. The proxy used to measure leverage is taken from the research of Adi et al. (2020) which is total liabitilies divided by total assets.

Profitability

Profitability is the ability to generate profit as measured by return on assets (ROA). ROA is measured by dividing profit before tax with total assets (Bintara, 2020).

Audit Quality

Audit quality is needed to assess the fairness of financial reporting so as to reduce the condition of information asymmetry (Khanh and Khuong, 2018). Audit quality is measured by dummy variable, 1 if the company is audited by big four audit firm and 0 if the company is audited by a non-big four audit firm.

The research model can be described as follows:

 $REM = a_0 + \beta_1 AI + \beta_2 IO + \beta_3 RPT + \beta_4 BS + \beta_5 LEV + \beta_6 PROF + \beta_7 AQ + \epsilon \dots (1)$ Information:

REM : Real Earnings Management

- AI : Asymmetry Information
- IO : Institutional Ownership
- RPT : Related Party Transaction
- BS : Board Size
- LEV : Leverage
- **PROF** : Profitability
- AQ : Audit Quality
- ε : Error

RESULTS AND DISCUSSION

An overview of the research data is contained in the statistical descriptive table below: **Table 2.** Statistic Descriptive

	Ν	Min.	Max.	Mean	Std. Dev.
REM	213	-5,7033	7,3435	-0,5751	2,2164
AI	213	0,0299	27,8146	2,6520	4,6357
ΙΟ	213	0,0033	0,9971	0,6957	0,2033
RPT	213	0,0000	1,1548	0,2271	0,3157
BS	213	2	11	5,3146	2,0808
Control Variables:					
LEV	213	0,0035	0,8448	0,4141	0,1866
PROF	213	0,0021	0,6242	0,0920	0,1006
AQ	213	0	1	0,4178	0,4944

Source: Statistical Processing Results

Table 2 shows that real earnings management (REM) has the lowest value of -5.7033, the highest value of 7.3435, the mean value of -0.5751 and the standard deviation of 2.2164. The asymmetry information (AI) variable has the lowest value of 0.0299, the highest value of

27.8146, the mean value of 2.6520 and the standard deviation of 4.6357. The institutional ownership (IO) variable has the lowest value of 0.0033, the highest value of 0.9971, the mean value of 0.6957 and the standard deviation of 0.2033. The related party transaction (RPT) variable has the lowest value of 0.0000, the highest value of 1.1548, the mean value of 0.2271 and the standard deviation of 0.3157. The board size (BS) variable has the lowest value of 2, the highest value of 11, the mean value of 5.3146 and the standard deviation of 2.0808.

The control variable, leverage (LEV) has the lowest value of 0.0035, the highest value of 0.8448, the mean value of 0.4141 and the standard deviation of 0.1866. The profitability variable (PROF) has the lowest value of 0.0021, the highest value of 0.6242, the mean value of 0.0920 and the standard deviation of 0.1006. The audit quality (AQ) variable has the lowest value of 0, the highest value of 1, the mean value of 0.4178 and the standard deviation of 0.4944. The results of the frequency distribution of audit quality variables in table 3 show that of the 213 company data, there are 124 data or 58.20% audited not big four audit firm and there are 89 data or 41.80% audited the big four audit firm.

Table 3. Frequency	Distribution of Audit Quality Variables
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Description	Criterion	Total	Percentage
Non Big Four	0	124	58,20%
Big Four	1	89	41,80%

Source: Statistical Processing Results

Table 4 is the hypothesis testing results which shows the adjusted R2 of 0.264, which means that the variation of REM variables can be explained by variations in the variables asymmetry information, institutional ownership, related party transactions, board size, leverage, profitability, and audit quality are 26.4 %, the rest is explained by variations of other variables that are not included in the model. While the F test have a significance value of 0.000 which means that the research model is feasible to use.

Variable	β	Sig.	Finding
(constant)	-2,517	0,000	
AI	0,065	0,038	Ha ₁ accepted
IO	1,752	0,009	Ha ₂ accepted
RPT	1,657	0,000	Ha ₃ accepted
BS	-0,026	0,675	Ha ₄ rejected
Control Variable:			
LEV	2,288	0,002	
PROF	-6,871	0,000	
AQ	-0,027	0,774	

 Table 4. Hypothesis Testing Results

Adjusted $R^2 = 0,264$

F. Stat.= 11,841, F. Sig.=0,000

The asymmetry information (AI) variable has a significant value of 0.038 ($\alpha \le 0.05$) with a coefficient value of 0.065, which means that asymmetry information (IA) has a positive effect on REM. The higher the level of asymmetry information will increase REM. These results are in accorandce with the research of Trisnawati et al. (2016) which shows that higher asymmetry information encourages companies to do REM. Information asymmetry is a condition that companies need to do REM more freely because the range of information is too wide between the company's internal and external parties. Thus, companies that disclose minimal information about the company can be an early indication of the company's lack of

transparency so that it allows REM to occur which can have a negative impact on the company in the future. These findings are expected to be a consideration for users of financial statements, especially investors to be more careful in deciding to invest in the long term in companies that do not provide information transparency.

The institutional ownership (IO) variable has a significant value 0.009 ($\alpha \le 0.05$) with a coefficient value of 1.752 which means that institutional ownership (IO) has a positive effect on REM. The higher institutional ownership will increase REM. These results are consistent with research by Nugrahanti and Puspitasari (2018) which shows that institutional ownership actually encourages REM. Companies with institutional ownership will help monitor the company's performance more closely, including the quality of information presented by the company. Thus, the existence of institutional ownership actually encourages companies to do REM compared to accrual earnings management because REM is more difficult to detect. Thus, the need for other corporate governance mechanisms in the company such as the role of the board size, audit committee and others so as to help minimize REM actions that can have a negative impact on the company.

The related party transaction (RPT) variable has a significant value of 0.000 ($\alpha \le 0.05$) with a coefficient value of 1.657 which means that related party transactions have a positive effect on REM. These results are consistent with research conducted by Limanto and Herusetya (2017), companies that have related party transactions will find it easier to do REM because the management will take advantage of this conditions opportunistically to manipulate earnings such as setting selling prices. Setting a lower selling price or giving massive discounts to related parties is an indication of one of the REM actions, which can later affect sales figures in the financial statements (Abdullah and Hussin 2015). Thus the need for the role of corporate governance mechanisms in the company so that it can provide oversight of company policies that can be detrimental in the future.

The board size (BS) variable has a significant value 0.675 ($\alpha \ge 0.05$) which means that the board size variable has no effect on REM. This shows that the large or small number of the board size is not an indication of a company doing REM. The number of the board size cannot guarantee the effectiveness of supervision of the company's responsibilities. Thus, the number of the board size is not a measure of the effectiveness of the performance of the board of commissioners, but it is necessary to pay attention to the educational background or experience of the board of commissioners itself which is predicted to further increase the effectiveness of the board of commissioners in a company.

The control variable, leverage (LEV) has a significant value of 0.002 ($\alpha \le 0.05$) with a coefficient value of 2.288, which means that leverage has a positive effect on REM. The higher the level of leverage, the higher the company's ability to perform REM. These results are consistent with Puspitasari (2019); Jaya (2020). Companies with high debt will be more pressured by creditors in fulfilling the terms of the debt contract agreement so that they carry out REM. The profitability variable (PROF) has a significant value 0.000 ($\alpha \le 0.05$) with a coefficient value of -6.871 which means profitability has a negative effect on REM. The higher the profitability, the lower the company's ability to perform REM. These results are consistent with the research of Lengkong and Herawaty (2019). Companies with high profitability are not encouraged to do REM because they have succeeded in achieving certain earnings targets. Audit quality (AQ) has a significant value 0.774 ($\alpha \ge 0.05$) which means that audit quality has no effect on REM. These results are in accorandce with Sanjaya (2016). REM is not the focus of the auditor's authority in carrying out his duties. In addition, REM is difficult to detect (Kim and Sohn, 2013).

CONCLUSION AND SUGGESTION

This study aims to examine whether there is an effect of information asymmetry, institutional ownership, related party transactions and the board size on real earnings management (REM). This study shows that information asymmetry, institutional ownership and related party transactions have a positive effect on REM. The higher information gap between the company's internal and financial statement users will increase the occurrence of REM. Information asymmetry is a condition that facilitates or an opportunity to practice REM. Meanwhile, institutional ownership in this study also shows a positive influence on REM. It is hoped that institutional ownership can increase supervision of the company's operational activities, however this research actually shows that institutional ownership actually affects the occurrence of REM. This is because institutional shareholders also want to maximize their welfare through the company. In addition, this study also shows that related party transactions have a positive effect on REM. The existence of transactions between related parties is actually an indication that illustrates the company's opportunities to make it easier to carry out REM actions. On the other hand, this study failed to prove that the board size has an effect on REM.

This research has implications for users of financial statements in paying attention to and considering factors that affect REM practices such as information asymmetry, institutional ownership and related party transactions in making an investment decision on a company. The high level of information asymmetry, institutional ownership and the magnitude of related party transactions are the determinants of the occurrence of REM whose impact can be detrimental to financial statements users in the future. In addition, this study provides implications for the addition of literature on factors that can affect REM, namely a high level of information asymmetry, the existence of institutional ownership and the magnitude of related party transactions which in previous studies still showed inconsistent results.

This study has limitations, namely the use of samples only in manufacturing companies which are needed to measure the total REM. However, the results of this study cannot be generalized widely. For further research, it is possible to add samples to non-financial companies but modify the measurement of REM into abnormal sales and abnormal discretionary expenditures.

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