

# The effect of accrual earnings management, using Khotari Model Approach, on the performance of manufacturing companies listed in Indonesia Stock Exchange

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## ARTICLE INFO

### Article history:

Received 15 September 2014

Revised 20 December 2015

Accepted 12 January 2015

### JEL Classification:

M42

### Key words:

Earning Management,  
Discretionary Accrual,  
Khotari Model,  
Company Performance.

### DOI:

10.14414/tiar.15.050102

## ABSTRACT

The purpose of this study is (1) to analyze the effect of accrual earnings management on the company performance measured with Return On Assets (ROA), (2) to analyze the effect of accrual earnings management on the company performance measured with Tobin's Q. This study uses the data of manufacturing companies listed in Indonesia Stock Exchange. The sampling technique used is purposive sampling method. The researcher uses Khotari Model to calculate discretionary accruals as the proxy of earning management, while the company performance in this study is proxied by the indicators of Return on Assets (ROA) and Tobin's Q. The analysis technique used is descriptive analysis and simple linear regression. The results of this study prove that accrual earnings management affects ROA and Tobin's Q. This study also proves that there is a decline in market value when the earnings management is performed.

## ABSTRAK

Tujuan dari penelitian ini adalah (1) untuk menganalisis pengaruh laba akrual manajemen terhadap kinerja perusahaan yang diukur dengan Return On Assets (ROA), (2) untuk menganalisis pengaruh manajemen laba akrual pada kinerja perusahaan yang diukur dengan Tobin Q. Penelitian ini menggunakan data dari perusahaan manufaktur yang terdaftar di Bursa Efek Indonesia. Teknik sampling yang digunakan adalah metode purposive sampling. Peneliti menggunakan Khotari Model untuk menghitung *accruals* diskresioner sebagai proksi dari manajemen laba, sedangkan kinerja perusahaan dalam penelitian ini diproksikan dengan indikator Return on Asset (ROA) dan Tobin Q. Teknik analisis yang digunakan adalah analisis deskriptif dan regresi linier sederhana. Hasil penelitian ini membuktikan bahwa manajemen laba akrual mempengaruhi ROA dan Tobin Q. Penelitian ini juga membuktikan bahwa ada penurunan harga pasar saat manajemen laba dilakukan.

## 1. INTRODUCTION

In the era of globalization, the world of business has experienced a rapid growth. It can be seen from the increasing number of new companies. This rapid development has led to the increased competition, which can further create the higher value of the company and improve the company performance. One of the components used to assess the performance of the company is financial statement. The financial statement becomes the primary information tool for the company to deliver financial information regarding the accountability of the

management. The delivery of information via this financial statement needs to be done to meet the needs of the internal and external parties.

Financial statement, according to PSAK (SFAS) No. 1 (revised 2009), is a structured representation of the financial position and financial performance of an entity. The objective of the financial statement is to provide information about the financial position, financial performance, and cash flows of the entity that can benefit the majority of the users of the financial statement in making economic decisions, Eliza (2012).

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Earnings are the company performance parameters that receive major attention from the investors and creditors because they use the earnings to evaluate the performance of management. Qualified earnings are the earnings that are useful in making decision that have the characteristics of relevance, reliability and comparability or consistency. Low earnings quality can lead the users of the financial statement to make mistakes in decision-making so that the value of the company will be reduced (Hamonangan and Machfoedz 2006).

Financial statement, as the reflection of information products produced by the company, cannot be separated from the process of preparing the financial statement. In the preparation of the financial statement, there are several policies and decisions that will affect the company performance appraisal. If on some conditions, the management of a company is not successful in achieving the profit target desired by the company, the management will allow the company to modify its financial statement. The objective of the management to modify the financial statement is to show the good performance of the company.

According to Scott (2000, in Wahidahwati 2002), in principle, earnings management does not violate the generally acceptable accounting principles, but the earnings management is considered to decrease public confidence in the company. The decline in public confidence may decrease the value of the company because many investors will withdraw the investments they have invested. Earnings management practice is considered detrimental because it can lower the value of the financial statement and provide irrelevant information to the investors.

One way that can be done by the management in the preparation of the financial statement, particularly relating to its effect on the earnings rate, is performing earnings management, which is expected to increase the company value at a given time. The earnings management done by the managers arises because of the agency problem, a conflict of interest between the owners or shareholders (principal) and the manager or management (agent) as a result of not meeting the maximum utility between both of them. Since the management has more information about the company than the shareholders do, there occurs asymmetry of information that allows the management to conduct accounting practice with profit orientation to achieve a certain performance.

Agency conflict results in the management to act opportunistically, so that the reported earnings are apparent and this will make the value of the company decline in the future.

Herawaty (2008) explained that one of the irregularities done by the management, as an agent is that, in the process of preparing financial statements, the management may affect the earnings rate shown in the financial statement, which is often referred to as earnings management. Earnings management is the action taken by the management to increase or decrease the company's profit in the financial statements. The purpose of earnings management is to improve the welfare of a particular party, although in the long run there is no difference between cumulative earnings of the company and the earnings that can be identified as a profit.

Earnings management may occur because the financial statement is prepared using the accrual basis. Accrual accounting system, as it exists in generally accepted accounting principles, provides the opportunity for managers to make accounting considerations, which will give an effect on the reported income. In this case, the income can be manipulated through discretionary accruals (Gumanti 2004).

The previous studies, in general, used aggregate accrual approach to measure the action of earnings management. This approach seeks to separate total accruals into non-discretionary accrual component (the accrual component beyond the management policies) and discretionary accrual component (accrual component within the management policies or the manager intervenes in the financial reporting process).

One of the advantages of aggregate accruals approach is that this approach has the potential to uncover ways to raise or lower the earnings, because these methods have received less attention to be known by outsiders (Gumanti 2004). However, the use of discretionary accruals models (aggregate accruals) receives a lot of criticism from researchers. They reasoned that in these models (aggregate accruals/discretionary accruals) ignore the relationship between cash flows and accruals, so that some non-discretionary accruals have been misclassified and are classified as discretionary. The error resulted in an error in the specifications of these models.

The same thing was also expressed by Hansen (1999) in Kothari (2005) who proved that there are changes in the company structural variables that are not solely due to the actions of managers in

manipulating financial statements, but relating to the purpose and nature of the estimates of discretionary accruals. Therefore, these variables resulted in an error in the measurement of earnings management based on the Jones Model and Modified Jones Model. Kothari (2005) also added that Jones Model and Modified Jones Model fail in estimating the discretionary portion of total accruals and might cause serious problems in drawing conclusions.

The measurement component of aggregate accruals measured using the Modified Jones Model is not able to capture the financial ratios that are often seen by investors, ie ROA (Return on Assets), so Khotari (2005) offered a new model, a development of Modified Jones Model by adding company performance variable, Return on Assets (ROA).

The model developed by Khotari (2005) has a basis that the accrual, containing in the company that has unusual performance, is systematically expected non-zero. The company performance certainly relates to accruals. So the company that has unusual performance, such as the company that is experiencing growth, has a positive relationship with accruals. In fact, if the company performance is good, it could be that the accrual of the company is high enough. This high value of accrual occurs because the company is experiencing growth or indeed its performance is in good condition, which may be indicated by a high amount of receivables, not because of the earnings management. Thus, this model can control the unusual performance in estimating discretionary accruals by way of entering the variable of performance, ROA, as an additional independent variable in the discretionary accruals regression model.

In this study the researcher uses Khotari Model approach which is relatively new in determining earnings management. Therefore, the researcher is interested in searching for the topic due to the desire to directly know and prove the effect of accrual earnings management, calculated using Khotari Model approach, on the company performance. From the background of the existing problems, this study entitled "The Effect of Accrual Earnings Management, using Khotari Model, on the Performance of Manufacturing Companies Listed in Indonesia Stock Exchange". The results of this study are expected to contribute to further studies related to the accrual earnings management.

This study is conducted to study more about the effect of Khotari Model-based accrual earnings management on the company performance proxied by Return on Assets (ROA) and Tobin's Q.

## **2. THEORETICAL FRAMEWORK AND HYPOTHESIS**

### **Agency Theory**

This theory states that every individual has a tendency to meet the needs and desires to the fullest. In concept, this theory explains the relationship or contract between shareholders (principals) and managers or company management (agent). The manager, as the executor of the company operation has more internal information than the shareholders have, thereby motivating the manager to be creative in order to maximize his personal gain. This does not close the possibility of the existence of opportunistic behavior, a behavior in which the manager does not always act in the best interests of the shareholders (Sulistiawan et al. 2011: 27-76).

Jensen and Meckling (1976) stated that an agency relationship is a contract between one or more owners (principal) who hires another person (agent) to perform some services on behalf of the owner that includes the delegation of decision-making authority to the agent. The relationship between the owner of the company, as the party who gives authority (principal), and the management, as the party who receives authority (agent), is called a principal-agent relationship. The owner, as the principal, authorizes the management to run the day-to-day operational activities and the management, as the authority recipient, is expected to act in accordance with the wishes of the owners of the company.

Eisenhardt (1989) described this agency theory using three assumptions of human nature, namely: (1) humans are generally selfish (self-interest), (2) humans have limited thinking about the perception of the future (bounded rationality), and (3) humans tend to avoid risk (risk-averse). Based on the assumptions of human nature, the manager as a human will behave opportunistically, i.e. prioritizing his own interests.

### **Earnings Management**

Wibisono (2004) stated that earnings management is a management intervention in the external financial reporting process to be able to increase or decrease the accounting profit. The emergence of earnings management is driven by the desire of the manager to maximize his utility. This desire is supported by the presence of several opportunities owned by the manager. First, the manager controls the internal information and the prospects of the company in the future more than the owners (shareholders) do. Second, the general theme of accounting provides the freedom to choose accounting policies.

According to Belkaoui (2007: 201-212), earnings management is the potential use of accruals management with the goal of personal gain. Accrual earnings management occurs in the context of a set of flexible reporting and a set of specific contract that determine the distribution of rules among stakeholders.

Healy and Wahlen (1999) stated that the definition of earnings management contains several aspects. First, the intervention of earnings management on the financial reporting can be done with the use of judgment, such as the judgment which is required in estimating the number of future economic events to be shown in the financial statements, including the estimates of the economic lives and residual values of fixed assets, the responsibility for pensions, taxes suspended, receivables and impairment loss of assets.

According to Nafiah (2013), earnings management, in the narrow definition, only deals with the selection of accounting methods. Earnings management, in the narrow sense, can be defined as the behavior of the management to "play" with the component of discretionary accruals in determining the earnings. While in broad definition, earnings management is the manager's actions to increase or decrease reported earnings at this point on a unit where the manager would be responsible, without resulting in an increase or decrease in the long-term economic profitability of the unit.

### **Accrual Earnings Management**

Accrual basis has been approved as the basis for preparing the financial statements because the accrual basis is deemed more rational and fair than the cash basis. The purpose of the election of accrual basis is intended to make the financial statements more informative and reflect the actual condition. But this accrual basis can be a bit driven so as to be able to change the number of profit generated. These opportunities are often used by the manager when he wishes a particular incentive for himself. SFAC 8 Ob. 17 states that:

"Accrual accounting describes the effect of transaction and other events and the circumstances at the economic resources of a reporting entity and claims in the period in which such effects occur, even if the cash receipts generated and payments occur in different periods. This is important because the information about the economic resources of a reporting entity and claims and changes in economic resources and claims during that period, provide a better basis for assessing the performance of

the entity's past and future rather than just information about the cash receipts and expenditures during the period".

With accrual basis, the information from the financial statements would be timelier because the cash flow does not always coincide with business activities that generate the cash. In addition, the accrual basis is in accordance with the matching principle where the load is recognized along with the revenue in a period, although in the absence of a cash transfer.

Accrual accounting system, as existing in generally acceptable accounting principles, provides the opportunity for the manager to make accounting considerations which will give an effect on the reported income. In this case, the income can be manipulated through discretionary accruals (Gumanti 2004).

Gumanti (2004) described that the accrual transaction may be in the form of 1) non-discretionary accrual transaction, when the transaction has been accounted by a particular method, the management is expected to be consistent with the method and 2) discretionary accrual transaction, a method that gives freedom to the management to determine the number of accrual transactions flexibly. The manager tends to choose earnings management policy by controlling accrual transaction, an accounting policy that provides flexibility to the management to make accounting considerations that will give an effect on the reported income. Accrual earnings management can be measured by the discretionary accruals of Modified Jones Models (1991). Abnormal accruals calculation begins with the calculation of total accruals. Total accruals are the differences between profit and cash flows arising from the operating activities.

### **Company Performance**

In general, the purpose of management performance measurement is to measure the effectiveness and the efficiency in the work done to achieve the set targets. There are several important aspects in evaluating the performance of a company. The performance evaluation done in a company can be classified into two aspects: 1) performance evaluation on the financial aspects, 2) performance evaluation on the non-financial aspects. The results of the evaluation can assess how far the management can achieve the target set, in terms of financial and non-financial aspects.

### **Company Operational Performance**

In this study, Return On Assets (ROA) is used as an

indicator of performance evaluation. Return on assets (ROA) is one form of profitability ratios, which are intended to measure the ability of the company on all funds, invested in activities that are used for operating activities of the company with the goal of generating profits by utilizing its assets.

ROA is the most important ratio among the existing profitability ratios (Ang 2007: 29). Negative ROA is caused by the negative conditions in the company's profit or loss. This demonstrates that the ability of the overall capital invested has not been able to generate a profit. According to Brigham (2006: 109), ROA is obtained by comparing net income to total assets. ROA can be formulated as follows:

$$ROA = \frac{NetIncome}{TotalAsset} \quad (3)$$

Description :

ROA : Return On Asset

NetIncome EAT: Earning After Tax

TotalAsset : The number of assets owned by the company

Net Income is net income after taxes. Total assets are all assets used in the activity or attempt to obtain a regular income or principal business of the company. The greater the ROA is, the better the company performance.

### Company Market Performance

The measurement of company performance is often done by using ratios valuation or market ratio. Market ratio is the most comprehensive measurement of company performance because it reflects the combined effect between the ratio of the return and the risk. In this study, Tobin's Q ratio is used as an indicator in assessing the market performance of the company. This ratio was developed by Professor James Tobin. Tobin's Q ratio can be formulated as follows:

$$Tobin's\ Q = \frac{MVE + DEBT}{TA} \quad (2)$$

Where :

MVE : Market Value Equity

DEBT : Long-term Debt

TA : Book Value of Company's Total Assets.

If the q-ratio is above one, this indicates that the investment in the assets can generate the profits that provide higher value than the investment spending, which in turns it will stimulate new investment. If the q-ratio is below one, this indicates that the investment in the assets is not attractive.

So the q-ratio is an accurate measurement of how effective the management utilizes the economic resources owned. Research conducted by Copel-

and (2002), Lindenberg and Ross (1981) quoted by Darmawati (2004) showed how the q-ratio can be applied to each company. They found that some companies could sustain the q-ratio greater than one. Economic theory says that the q-ratio, which is greater than one, would draw current of resources and new competition until the q-ratio is close to one. It is often difficult to determine whether the high q-ratio reflects management superiority or the advantage of patents owned.

### The Effect of Accrual Earnings Management on ROA

Return on Assets (ROA) is one form of profitability ratios that are intended to measure the ability of the company on all funds invested in activities that are used for operating activities of the company with the goal of generating profits by utilizing its assets.

Negative ROA is caused by the negative conditions in the company's profit or loss. This demonstrates that the ability of the overall capital invested has not been able to generate a profit.

Based on the previous studies, tentatively, it can be concluded that Return on Assets (ROA), which is a proxy of the company performance, effects the earnings management. It supports the research conducted by Wibisono (2004) and Cornett (2006) that the earnings management variable has positive and significant effect on ROA. Based on the description, the hypothesis can be formulated as follows:

H<sub>1</sub> : Accrual Earnings Management affects ROA.

### The Effect of Accrual Earnings Management on Tobin's Q

Market ratio is the most comprehensive measurement of the company performance because it reflects the combined effect of the ratio of the return and risk. In this study, Tobin's Q ratio is used as an indicator in assessing the company market performance.

Sloan (1996) in Herawaty (2008) examined the nature of the information content of the accrual components and cash flow component, whether they affect the stock price. It is evident that the performance of profits derived from the accrual component as earnings management activities have lower persistence than the cash flow.

The research on the market ratio has been made by several previous researchers. Wibisono (2004), in his research, used stock return as an indicator of market performance. The results indicate that earnings management variable significantly has negative effect on the Stock Return. Herawaty



**Figure 1**  
**Research Framework**

(2008) and Hamonangan (2009) showed that earnings management variable significantly has negative effect on Tobin's Q. This is in contrast to the research conducted by Solechan (2010) using stock return as an indicator of market performance. The results of his research indicate that earnings management variable has positive and not significant effect on the Stock Return. Based on the description, the hypothesis in this study can be formulated as follows:

H<sub>2</sub>: Accrual Earnings Management affects Tobin's Q.

The framework underlying this study can be described as in Figure 1.

### 3. RESEARCH METHOD

#### Sample Classification

The population is manufacturing companies listed in Indonesia Stock Exchange (IDX) from 2008 to 2011. The sampling technique is purposive sampling technique with the aim to obtain samples in accordance with the following criteria: (1) the manufacturing companies that actively listed in IDX from 2008 to 2011, (2) the manufacturing companies that have issued/published complete annual report, especially the report items that become the basis of this research, (3) the manufacturing companies do not undertake a stock splits during the study period because the stock splits affect the stock price changes significantly. The stock price is an important component to measure Tobin's Q, (4) the financial statements do not use foreign currency unit (dollars).

Of the 423 manufacturing companies listed on the Indonesian Stock Exchange, 179 companies were taken for the research sample based on the sample selection criteria.

#### Research Data

The data used is secondary data, i.e. quantitative data. Data collection techniques used by the researcher is documentation. It is done by way of collecting data related to the study variables obtained from the Indonesia Stock Exchange website ([www.idx.co.id](http://www.idx.co.id)). The data is in the form of financial

statements issued by manufacturing companies listed in Indonesia Stock Exchange and as the supporting tools of the Indonesian Capital Market Directory (ICMD).

#### Research Variables

The research variables used in this study are dependent variable and independent variable. The dependent variable is the company performance proxied by ROA and Tobin's Q. While the independent variable is accrual earnings management

#### Operational Definition of Variables

Variable is anything that distinguishes or brings variation in value (Sekaran 2006).

#### Return On Asset (ROA)

The variable of company performance, using the ratio of ROA, is based on the ability of the analysis tool to assess the overall performance of the company. This ratio is used to determine the effectiveness and efficiency of a company in managing the entire wealth to generate profits, ROA ratio can be calculated by the formula 1.

#### Tobin's Q

The company performance can be seen through the company's market value or book value equity. In the balance sheet, equity illustrates the total capital of the company. In addition, the market value could be a measure of the value of the company. The variable of company performance is measured using Tobin's Q formula (2).

Market Value Equity (MVE) is obtained by multiplying closing price at the end of the year and the number of shares outstanding at the end of the year

#### Accrual Earnings Management

The independent variable is earnings management, which is proxied by discretionary accruals. In addition, the researcher uses a model of Kothari et al. (2005) to reduce the magnitude of discretionary accruals. The discretionary accrual calculation

**Table 1**  
**Descriptive Statistics**

Year	N	Mean		
		DA	ROA	Tobins
2008	119	-0.0635	0.0186	0.2042
2009	117	0.0112	0.0614	0.1739
2010	117	-0.0950	0.0584	0.2700
2011	72	-0.0748	0.0237	1.0552
Total	423	-0.0534	0.0423	0.3549

Source: Data processed.

models of Kothari et al. (2005) are as follows :

1). To determine the value of Total Accrual (TA) is using the following formula:

$$TA = TA_{it} - CFO_{it} \quad (3)$$

2). To determine the parameter value for the regression analysis to be conducted is using the following formula:

$$TA_{it} = \beta_1 1/ASSET_{it} + \beta_2 \Delta ASSET_{it} + \beta_3 PPE_{it} + \beta_4 ROA_{it} + \varepsilon_{it} \quad (4)$$

3). To calculate the value of discretionary accruals (NDA) is using the following formula:

$$NDA_{it} = \beta_1 \frac{1}{\Delta ASSET_{it}} + \beta_2 \left( \frac{\Delta SALES_{it}}{\Delta ASSET_{it}} + \frac{\Delta REC_{it}}{\Delta ASSET_{it}} \right) + \beta_3 \frac{\Delta PPE_{it}}{\Delta ASSET_{it}} + \beta_4 ROA_{it-1} + \varepsilon_{it} \quad (5)$$

4). To calculate the value of discretionary accruals that becomes the indicator of accrual earnings management (Khotari Model) is using the following formula:

$$DA_{it} = TA_{it} - NDA_{it}$$

Description:

$TA_{it}$  = Total Accrual of Company *i* in period of *t*

$NDA_{it}$  = Non Discretionary Accrual of company *i* in period of *t*

$DA_{it}$  = Discretionary Accrual of company *i* in period of *t*

$NI_{it}$  = Net Income of company *i* in period of *t*

$CFO_{it}$  = Cash Flow Operation of company *i* in period of *t*

$ASSET_{it}$  = Total Assets of company *i* in period of *t*

$\Delta SALES_{it}$  = Changes in Net Sales of company *i* in period of *t*

$PPE_{it}$  = Property, Plan, Equipment of company *i* in period of *t*

$ROA_{it}$  = Return On Asset of company *i* in period of *t*

$\Delta REC$  = Changes in receivables of company *i* in period of *t*

$\Delta ASSET$  = Changes in Total Assets of company *i* in period of *t*

$\Delta PPE_{it}$  = Changes in Property, Plan, Equipment of company *i* in period of *t*

$ROA_{it-1}$  = Return On Asset of company *i* in period of *t-1*.

Empirically, the value of discretionary accruals can be either zero, positive, or negative. The value of zero indicates that the earnings management is done by using income smoothing pattern. The positive value indicates that the earnings management is done by using income increasing pattern. The negative value indicates that the earnings management is done by using income decreasing pattern. (Sulistyanto 2008: 165-166).

#### Analysis Tool

To examine the relationship between accrual earnings management and company performance proxied by ROA and Tobin's Q is using a simple linear regression model. This regression model is selected to test the independent variable on the dependent variable. To determine its relationship, the following is the regression model equation:

$$ROA_t = \alpha + \beta_1 MLA + \varepsilon \quad (6)$$

$$Tobin's Q = \alpha + \beta_1 MLA + \varepsilon \quad (7)$$

Description :

$ROA_t$  = Return On Asset in period of *t*

$Tobin's Q$  = Market value of company

$MLA$  = Accrual earnings management

$a$  = Constant

$\beta_1$  = Regression coefficients

$\varepsilon$  = Error.

## 4. DATA ANALYSIS AND DISCUSSION

### Descriptive Test

Descriptive analysis is performed in order to provide an overview of the variables used in the study. This study uses one independent variable with the aim to determine the effect of accrual earnings management on the company performance. While the dependent variable in this study is the company performance, which is proxied by ROA and Tobin's Q. Table 1 is the descriptive test results.

Table 1 shows that during the study period from 2008 to 2011 there were 423 samples consisting of 124 companies that have mean value of DA - 0.0534, while the highest mean value in 2009 was 0.0112 and the lowest mean value in 2010 was -

**Table 2**  
**Results of Simple Linear Regression Analysis**

Testing	ROA	Tobin's Q	Accrual Earnings Management	Desc.
F test (Dependent : ROA)				
F Value			8.790	Sig
Significance Value			0.003*	
F test (Dependent : Tobin's Q)				
F Value			8.636	Sig
Significance Value			0.003*	
R Square	0.020	0.020		
T Test (Dependent : ROA)				
T Value			2.965	Sig
Significance Value			0.003*	
T Test (Dependent : Tobin's Q)				
T Value			-2.939	Sig
Significance Value			0.003*	

Description: \*Significance  $\alpha = 0.05$

Source: Data Processed

0.0950. The mean value of ROA was 0.0423, while the highest mean value in 2009 was 0.0614 and the lowest mean value in 2010 was 0.0237. The mean value of the Tobin's Q was 0.3549, while the highest mean value in 2011 was 1.0552 and the lowest mean value in 2009 was 0.1739.

### Normality Test

Normality test aims to test whether the regression model, confounding variable or residual, is normally distributed. The regression model residuals are distributed normally if the results of normality test using the Kolmogorov-Smirnov generate significant value  $> 0.05$ , whereas if the significant value  $< 0.05$ , then the regression model residuals are not normally distributed.

Based on the results of the normality test, it shows that the regression model residuals used are not normally distributed, as evidenced that the residual value  $< 0.05$ .

### Regression Analysis

Regression analysis is performed to determine the relationship between the independent variable, accrual earnings management, and the dependent variable, company performance proxied by ROA and Tobin's Q. The regression analysis performed in this test is a simple linear regression model that aims to test the hypothesis that has been proposed.

### Results of Analysis and Discussion

Based on Table 2, simultaneous testing is performed to determine whether the regression model used fits. The regression model of accrual earnings management tested using the dependent variable of

company performance proxied by ROA shows the F count value of 8.790 and a significance level of 0.003, suggesting that the regression model used fits. It is demonstrated with the significance value of 0.003, which is less than 0.05.

The regression model of accrual earnings management tested using the dependent variable of company performance proxied by Tobin's Q shows the F count value of 8.636 and a significance level of 0.003, suggesting that the regression model used fits. It is demonstrated with the significance value of 0.003, which is less than 0.05.

The R square test in this research is conducted with the aim to measure the ability of the model in explaining the variation in the dependent variable. R-square test for the dependent variable of company performance proxied by ROA generates R square value of 0.020 or only 2% ROA variable can be explained by the independent variable, i.e. accrual earnings management. While the test for company performance proxied by Tobin's Q generates R square value of 0.020 or 2% Tobin's Q variable can be explained by the independent variables, i.e. accrual earnings management.

While the R-square test for the dependent variable of company performance with the indicator of Tobin's Q generates R square value of 0.020 or only 2% variation in Tobin's Q variable can be explained by the independent variable, i.e. accrual earnings management. It can be concluded that the ability of the model used in this study is the same in explaining the variation of dependent variable.

R-square test is conducted to measure how far the model's ability to explain variation in the dependent variable. R-square test for the dependent



**Table 3**  
**Results of Analysis per Industrial Sector**

No	Industrial Sector	R <sup>2</sup> Test		T Test			
		ROA	Tobin's	ROA		Tobin's	
				t count	Sig	T count	Sig
1	Adhesive	0.175	0.001	1.129	0.302	-0.062	0.953
2	Apparel and Other Textile Products	0.406	0.040	4.525	0.000*	-1.125	0.269
3	Automotive and Allied Products	0.001	0.004	0.230	0.819	0.376	0.709
4	Cables	0.206	0.037	2.221	0.039*	-0.855	0.403
5	Cement	0.238	0.451	1.479	0.183	2.396	0.048*
6	Chemical and Allied	0.661	0.000	6.403	0.000*	-0.093	0.927
7	Consumer Goods	0.277	0.118	-1.750	0.118	1.032	0.332
8	Electronic and Office Equipment	0.000	0.702	0.039	0.969	-5.320	0.000*
9	Fabricated Metal Products	0.014	0.695	-0.295	0.778	-3.699	0.010*
10	Food and Beverages	0.000	0.002	-0.045	0.964	0.357	0.723
11	Lumber and Wood Products	0.601	0.177	3.683	0.005*	-1.391	0.198
12	Metal and Allied Products	0.051	0.000	1.372	0.179	0.092	0.927
13	Paper and Allied Products	0.078	0.182	1.090	0.294	-1.764	0.100
14	Pharmaceuticals	0.000	0.053	-0.063	0.950	-1.109	0.279
15	Photographic Equipment	0.372	0.006	2.435	0.035*	0.249	0.808
16	Plastics and Glass Products	0.085	0.001	2.020	0.050*	-0.221	0.826
17	Stone, Clay, Glass and Concrete Products	0.819	0.399	7.671	0.000*	2.937	0.012*
18	Textile Mill Products	0.446	0.001	4.574	0.000*	0.168	0.868
19	Tobacco Manufacturers	0.002	0.366	0.136	0.895	-2.279	0.049*

Description: \*Significance  $\alpha = 0.05$ .

Source: Data processed.

variable of company performance with the indicator of Return on Assets (ROA) generates R square value of 0.020 or only 2% variation in ROA variable can be explained by the independent variable, i.e. accrual earnings management.

Partial test is conducted on the study variables. The accrual earnings management that is tested using the dependent variable of company performance proxied by ROA generates t value of 2.965 with a significance level of 0.003. This suggests that accrual earnings management affects the company performance, which is proxied by ROA.

Table 3 shows the results of the analysis of the industrial sector. Partially, for ROA variable, of the 19 industrial sectors, there are 8 significant industrial sectors; Apparel and Other Textile Products sector shows t count value of 4.525, with a significance level of 0.000 and R square value of 0.406. Cables sector shows t count value of 2.221, with a significance level of 0.039 and R square value of 0.206. Chemical and Allied sector shows t count value of 6.403, a rate of -2.939, with a significance level of 0.003. This suggests that accrual earnings management affects the company performance proxied by Tobin's Q, with a significance level of 0.000 and R square value of 0.661. Lumber and Wood Products sector shows t count value of 3.683, with a significance level of 0.005 and R square val-

ue of 0.601. Photographic Equipment, Plastics and Glass Products sector shows t count value of 2.020, with a significance level of 0.050, and R square value of 0.085. Stone, Clay, Glass and Concrete Products sector shows t count value of 7.671, with a significance level of 0.000 and R square value of 0.819. Textile Mill Products sector shows t count value of 4.574, with a significance level of 0.000 and R square value of 0.446.

Partially, for Tobin's variable, of the 19 industrial sectors, there are 5 significant industrial sectors; Cement sector shows t count value of 2.396, with a significance level of 0.048 and R square value of 0.451. Electronic and Office Equipment sector shows t count value of -5.320, with a significance level of 0.000 and R square value of 0.702. Fabricated Metal Products sector shows t count value of -3.699 with a significance level of 0.010 and R square value of 0.695. Stone, Clay, Glass and Concrete Products sector shows t count value of 2.937, with a significance level of 0.012 and R square value of 0.399. Tobacco Manufactures sector shows t count value of -2.279, with a significance level of 0.049 and R square value of 0.366.

#### **The Effect of Accrual Earnings Management on Company Performance Proxied by ROA**

Discretionary Accrual is a variable used to assess

**Table 4**  
**Analysis of Independent Variable Component**

Description	Mean				
	2008	2009	2010	2011	Total
PPE	1,372,779	1,531,346	1,658,316	1,537,008	1,522,794
REC	334,518	374,485	444,909	449,074	395,063
SALES	4,127,662	3,867,002	4,800,011	4,660,346	4,329,685
ROA	0.0186	0.0614	0.0584	0.0237	0.0423
DA	(0.0635)	0.011	(0.0950)	(0.0748)	(0.0534)

Source: Data processed.

the extent to which the management performs earnings management action. With the earnings management practice, it is expected that the company's profit can increase so that the company performance is considered good. While the ROA is used to measure the company's ability to generate profits with the level of assets owned by the company. So, the earnings management which is done with the higher accrual transactions will affect the company's operational performance measured using ROA, which in turn will demonstrate the company's ability to generate profits.

Based on the results of the partial test (t test) which show a significant result (H0 is rejected or H1 is accepted), it can be concluded that accrual earnings management affects the operational performance with the indicator of ROA. This can be seen from the t value of 2.965 with a significance level of 0.003, which indicates that accrual earnings management affects the operational performance with the indicator of ROA. So it can be concluded that when the accrual earnings management increases, the Return on Assets (ROA) will also increase, and vice versa. The results of this study are considered to be able to prove the theory and this study is consistent with the research conducted by Wibisono (2004) and Cornett (2006) explaining that accrual earnings management positively affect the company performance proxied by ROA.

#### **The Effect of Accrual Earnings Management on Company Performance Proxied by Tobin's Q**

Tobin's Q is used to measure the extent to which the market assesses the company. Accrual earnings management, using Khotari Model approach, uses ROA as a measurement component of accrual earnings management. ROA is information that is directly accessible by the market through the financial statements or company performance reports, thus if earnings management increases, which is reflected from the ROA value, it is expected to be able to improve the market performance, which is reflected in the Tobin's Q value.

The results of partial test (t test) show a signifi-

cant result (H0 is accepted or H1 is rejected), that accrual earnings management affects the market performance, as measured by Tobin's Q. This can be seen from the t value of -2.939, with a significance level of 0.003, which shows that accrual earnings management has an effect on market performance, as measured by Tobin's Q. Therefore, when a company increasingly conducts earnings management through accrual transactions, the performance of the market will decline, and vice versa.

The results of this study are considered not to be able to prove the existing theory that high earnings management will be closely linked to the low quality of earnings, and the managers conduct earnings management to ensure high-quality of earnings. The results of this study are consistent with the research conducted by Wibisono (2004). Although the measurements of market performance are different, the research conducted by Wibisono (2004) used Stock Return. Thus, the study explained that accrual earnings management negatively and significantly affects the company performance proxied by Stock Return. These results are also consistent with the research conducted by Herawaty (2008) and Hamonangan (2009) that explained that earnings management negatively and significantly affects the market performance proxied by Tobin's Q. These results are not consistent with the study conducted by Solechan (2010) in which the accrual earnings management positively and not significantly affects the market performance proxied by Stock Return.

Table 4 shows that the value of discretionary accruals tends to be negative, which means that the management performs earnings management practice using income decreasing pattern. This is in accordance with the value of ROA, which tends to decrease. Based on the above components, the researcher suspects that the management performs earnings management practices through account of Property, Plan, Equipment (PPE) and sales whose value tends to decline.

The company management performs earnings management through Property Management, Plan,

Equipment (PPE) by way of replacing the asset depreciation method with another depreciation method because the asset depreciation method can make a relatively greater depreciation costs, or vice versa. Meanwhile, another way to do is to change the economic life to be longer or shorter depending on the desired profit size. In addition to the two ways, the management can also change the residual value of fixed assets. Changing the value of the residual company will also be able to adjust the desired profit size (Sulistyanto 2008: 197-199).

As earnings management through a sale transaction is performed by way of changing the method of recognizing sales revenue receipts in accordance with its purpose, when a company wants the profits to be higher. In that case, the company may change the method of its sale from FOB destination to FOB shipping point, when the company wants lower profits. Besides, it can change the method sales from FOB shipping point to FOB destination. With such a change of methods, the management performs earnings management practices.

This shows that companies in Indonesia tend to perform earnings management by way of income decreasing. Therefore, the researcher suspects that the market tends to pay attention to the earnings information contained in the financial statements. When the company profit is small, or even tends to decrease, the market will consider that the company performance is poor.

## **5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS**

It can be seen that accrual earnings management affects company performance proxied by ROA and Tobin's Q. In general, it can be concluded as follows: 1). Accrual earnings management as the independent variable affects the company performance that is proxied by the indicator of Return on Assets (ROA). 2). Accrual earnings management as the independent variable affects the company performance that is proxied by the indicator of Tobin's Q.

This research provides guidance/guidelines how to calculate the accrual earnings management using Khotari Model approach. The results of the study/analysis using Khotari Model approach can be seen that earnings management is based on the industrial sectors.

Practical implication of this research is to provide input to the investors and creditors to be more careful to make investment decisions and provide loans.

The limitations are as follows: 1). This study is

based on secondary data sources. The secondary data is obtained from [www.idx.co.id](http://www.idx.co.id) and the Indonesian Capital Market Directory (ICMD) so there are some companies that are excluded from the samples due to the incompleteness of the data of the companies. 2) the data are not normally distributed so that this becomes the limitation in this study. In addition, the research samples are only limited to manufacturing companies so that the results cannot be generalized to other types of industries.

Based on the limitation in this study, the researcher proposes some suggestions for further research. The suggestions are as follows: 1). For further research can expand the sample by using the samples of go public companies. 2). Future research should not only use Tobin's Q as a measure of market performance, but also other approaches.

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