

# CEO OVERCONFIDENCE, AUDIT FIRM SIZE, REAL EARNINGS MANAGEMENT AND AUDIT OPINION

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## ABSTRACT

*This study aims to test the direct or indirect relationship between CEO overconfidence, audit firm size, real earnings management to audit opinion. The sample used in this study is a manufacturing company listed on the Indonesia Stock Exchange in the period 2014-2016. This research testing uses multiple linear regression and logistic regression. The results of this study indicate that CEO overconfidence has a positive effect on real earnings management, while real earnings management has no effect on audit opinion. In addition, this study also shows that the audit firm size has no effect on the relationship between CEO overconfidence and real earnings management. However, this study shows that CEO overconfidence has a negative effect on audit opinion. This study also shows that real earnings management does not mediate the relationship between CEO overconfidence and audit opinion.*

**Keywords:** CEO Overconfidence, Audit Firm Size, Real Earnings Management, Audit Opinion.

## INTRODUCTION

The auditor at the planning stage of an audit of a client will consider the company's management character in determining audit risk (Duellman et al., 2015). This is because the characteristics of the CEO or company management will affect the audit process of the company. The CEO (Chief Executive Officer) of a company plays a role and responsibility in decision making, including financial reporting so that the CEO is regarded as a reflection of the company itself (Amernic & Craig, 2010; Galvin, 2015).

The CEO involvement in financial reporting is considered significant as the CEO has an influence on decision making in financial reporting (Carcello et al., 2011; Presley & Abbott, 2013). The accounting figures listed in the financial statements become an expression for the CEO of the company in relation to the policies it adopts so that the financial statements become a representation of the projected identity of the maker (Amernic & Craig, 2010). Several studies have shown that the characteristics of CEO and CFO of firms have an impact on the quality of financial reporting (Aier et al., 2005; Bamber et al., 2010; Demerjian et al., 2013).

Presley & Abbott (2013); Duellman et al. (2015); Ji & Lee (2015) argue that one of the CEO characteristic is overconfidence which is an attitude of optimism or an excessive level of trust and even biases positive estimates of future results for the current decision, but the CEO does not aware of the excessive self-esteem. Malmendier & Tate (2005); Kolasinski & Li (2013) suggest that CEO overconfidence tends to overestimate the returns of an investment and estimate a low risk. CEO overconfidence are individuals who are inclined to invest, are willing to take more risks, are reluctant to pay dividends, like external financing like debt, and dare to innovate (Malmendier & Tate, 2005; Malmendier et al., 2011; Hirshleifer et al., 2012; David et al., 2013; Deshmuk et al., 2013; Humphery-Jenner et al., 2016; Bharati et al., 2016).

Hsieh et al. (2014); Hribar & Yang (2016); Alqatamin et al. (2016); Kouaib & Jarboui (2016); Kouaib & Jarboui (2017) suggest that CEO overconfidence tend to engage in both real

and accrual earnings management to maintain their reputation and competence. CEO overconfidence also tends to cheat financial statements to achieve or exceed excessive optimism against earnings expectations (Schrand & Zechman, 2012). In a study conducted by Presley and Abbott (2013), Koloub & Shoorvarzy (2015) show that CEO overconfidence is positively related to the existence of financial reporting restatement due to accounting aggressiveness by company management. CEO overconfidence also tends to be less conservative in presenting accounting figures (Ahmed & Duellman, 2013).

Johnson et al. (2013) indicates that the management of narcissistic (overconfidence) will increase the risk of fraud committed by the client. CEO overconfidence also tends to overestimate future cash flows on a project but ignore possible risks (Heaton, 2002; Malmendier & Tate, 2005). This will increase the audit risk so that the company may get an audit opinion other than unqualified.

Guan et al. (2016) show that auditors play an important role in ensuring the quality of financial reporting which is important information for users of financial statements. Defond & Zhang (2014); and Guan et al. (2016) suggests that auditors as external parties seek to be independent in performing their duties to maintain their reputations by seeking to avoid audit risks related to: litigation risk, reputation risk and regulatory risk. Litigation risks represent risks for financial penalties and dismissed operating licenses, reputational risk will make the auditor lose confidence in the public and even the inability to attract or retain clients, the risk of regulation related to the threat of regulatory intervention by providing sanctions covering fines or imprisonment for the category of action criminal. The above risks indicate that the auditor has acted independently and incompetently.

The auditor plays an important role in providing guarantees and oversight as an independent party, protecting investor rights and detecting fraud by internal parties (Fan & Wong, 2005; Newman et al., 2005). The Public Accounting Firm (PAF) size is considered to have higher audit quality as they seek to maintain reputations and have high litigation issues (Hope et al., 2008; Guedhami et al., 2014; Defond & Zhang, 2014) attitudes of independence and the level of auditor competence gained from the abundance of experience and training. Defond & Zhang (2014) suggest that the big N auditor is associated with low fraud and discretionary accruals that reflect low audit risk. Likewise, Johnstone & Bedrad (2004); Defond & Zhang (2014) shows that big N selects clients with low risk to reduce the audit risk. This indicates that auditors from large PAF (in this case Big 4) will provide an audit opinion appropriate to the client's financial condition and circumstances to safeguard the possibility of litigation or sanction risk from government regulations that will degrade the reputation of the public accounting firm. This study examines the direct and indirect effects of CEO overconfidence, real earnings management and audit opinion. In addition, this study also examines the effect of public accounting firm size on the relationships of CEO overconfidence and real earnings management.

This study contributes to the literature on CEO relationships overconfidence, real earnings management, public accounting firm size and audit opinions. This research takes sample of manufacturing companies in Indonesia dominated by family ownership as the control of the company so that the tendency of the occurrence of agency problem type II is between the controlling and non-controlling shareholder (Ali et al., 2007).

## LITERATURE REVIEW

### Agency Theory

The agency theory explains that each individual seeks to maximize their own interests (Jensen & Meckling, 1976). The sample of companies in Indonesia dominated by family ownership allows the emergence of agency conflict type two between the controlling shareholders and non-controlling shareholders. The controlling shareholders have greater control right of the company to actions that maximize its own profits and harm the non-controlling shareholders because of the state of information asymmetry (Claessens et al., 2000; Ali et al., 2007). The power to control and the state of information asymmetry encourages earnings manipulation.

Hribar & Yang (2016), Kouaib & Jarboui (2016:2017) suggest that CEO overconfidence motivation of earnings management is to improve his or her credibility in the public. In addition, CEO overconfidence motivated earnings management to achieve certain earnings expectations, avoiding reporting losses or income decreasing (Graham et al., 2005; Roychowdhury, 2006; Tucker & Zarowin, 2006; Cohen et al., 2008; Gunny, 2010).

Defond & Zhang (2014) and Guan et al. (2016) stated that the auditor becomes an independent party or gatekeeper over the quality of the company's financial reporting, the auditor also has a need to provide quality financial reporting to reduce the risk of litigation or regulatory costs that must be incurred if failing to find material misstatement of the client's audited financial statements. In addition, the auditor also strives to maintain its reputation in the public.

At the time of initial planning, the auditor will make an audit plan for the client's audit risk, including the competence of the company's management, suspicion of accounting figures and errors on financial reporting disclosures (Duellman et al., 2015). The inability of the auditor to detect material financial reporting errors will bring significant risks to the public accounting firm, to reduce the audit risk, the auditor will expand the audit findings and scope (Defond & Zhang, 2014). Likewise, the auditor will provide opinions in accordance with the state of the client's financial statements to maintain independence and competence in the public.

### CEO Overconfidence, Public Accounting Firm Size and Real Earnings Management

The characteristics and abilities of the CEO affect strategic decision making and reporting (Hambrick & Mason, 1984; Petrenko et al., 2016). One characteristic of the inherent characteristic of an individual is confidence, however, if overconfidence, it will have a negative impact on the firm because of the biased estimation of the decisions it makes (Chen et al., 2014). However, Malmendier & Tate (2008), Kouaib & Jarboui (2017) indicate that overconfidence is an overestimation of his own ability and knowledge and positively affects his actions within the company. CEO overconfidence are motivated to always want to show their greatness by trying to achieve the expected target so that CEO overconfidence tends to manipulate earnings or other forms of fraud (Schrand & Zehman, 2012; Presley & Abbott, 2013; Hribar & Yang, 2016; Kouaib & Jarboui, 2016).

The high optimism of the CEO is capable of causing bias or inaccuracies of decision making and they tend to perform earnings management to achieve expected targets (Schrand & Zehman, 2012; Hribar & Yang, 2016). CEO overconfidence tend to perform real earnings management through sales manipulation and discretionary expenditures budget cuts rather than accrual earnings management to achieve certain earnings target (Habib et al., 2012:2014; Kouaib

& Jarboui, 2016). Real earnings management is the preferred earnings manipulation because it directly affects the income of the current period (Graham et al., 2005; Sutrisno, 2017). Moreover, real earnings management does not violate the applicable standards and not easily detected by auditors, investors and other users of financial statements (Kim & Sohn, 2008).

Roychowdhury (2006); and Cohen et al. (2008) show real earnings management can be done by manipulating real activities such as:

1. Sales manipulation by giving large discounts, giving credit lenient, timing of revenue recognition.
2. Overproduction, mass production to reduce COGS (Cost of Goods Sold).
3. Budget cuts of discretionary expenditures, such as research and development, sales, general and administrative expenses. Based on the above background, this research hypothesis is:

*H1a: CEO overconfidence is positively related to real earnings management.*

The existence of agency problems type II required the existence of guarantee and supervision from independent parties on financial reporting disclosure (Fan & Wong, 2005). The auditor plays an important role in protecting investor rights as well as detecting fraud by internal parties (Newman et al., 2005). Auditors from big 4 offer higher audit quality as they seek to maintain the reputation and high litigation issues (Hope et al., 2008; Guedhami et al., 2014; Defond & Zhang, 2014).

Becker et al. (1998), Francis et al. (1999), Kim et al. (2003) show that big N is associated with low discretionary accrual values. Similarly, Zang (2012) stated that the big N auditor is concerned about the accrual earnings management but not for real earnings management. However, Defond & Zhang (2014) point out that big N auditors show the size of PAF provides high audit quality due to the high level of experience and training. Based on the above background, this research hypothesis is:

*H1b: The size of PAF weakens the relationship between CEO overconfidence and real earnings management.*

## **CEO Overconfidence and Audit Opinion**

However, the auditor in planning his duties has the perception or the initial expectation of the CEO presence that overconfidence will increase the audit risk, thereby increasing the audit scope (Duellman et al., 2015). The auditor in the performance of his duty strives to maintain its quality to reduce the audit risk that may occur (Defond & Zhang, 2014; Guan et al., 2016). Audit quality indicate the quality of financial reporting, as well as the quality of the audit indicating the quality of audit opinions provided by the auditor, not on the opinion itself (Defond & Zhang, 2014).

Audit opinion consists of unmodified opinion, modified opinion: qualified opinion, adverse opinion, disclaimer of opinion. The auditor gives adverse or disclaimer of opinion if the audited financial statements contain material misstatements that:

1. Violate the rules of accounting standards or principles.
2. Limits on the audit scope.
3. Inconsistencies in applying accounting standards.

Companies that get qualified opinions when there is indication of financial distress or a going-concern issue (Chan et al., 2006:2000).

Ji & Lee (2015) shows that the tendency of auditors will provide opinions going concern, especially against the company that has CEO overconfidence and in the condition of financial distress. This is because CEO overconfidence tends to try to show competence, improve social networks, strive to create high social status that makes them look more competent and have more ability than they should (Anderson et al., 2012). However, CEO overconfidence has a negative impact on audit opinion. CEO overconfidence is likely to adopt risky, inefficient, and even false investment policies in determining risk and return on investment (Heaton, 2002; Ben-David et al., 2013; Presley & Abbott, 2013). In a study conducted by Schrand & Zechman (2012) shows that CEO overconfidence tends to show optimistic bias and more mistakes in financial reporting. Based on the characteristics of CEO overconfidence which tend to ignore the risk and likes to do earnings manipulation hence this research hypothesis is:

*H2: CEO overconfidence negatively affects audit opinion.*

### **Real Earnings Management and Audit Opinion**

Butler et al. (2004) provide the view that auditors tend to dislike publishing modified opinions for reasons of earnings management. There is no evidence that auditors use audit opinion to be a sign or alarm to users of financial statements on the existence of earnings management. However, several previous studies by Tsipouridou & Spathis (2014), Omid (2015), Moazedi & Khansalar (2016) show that earnings management has no effect on audit opinion. The auditor in performing his duties is not focused on the existence of earnings management but rather on whether the company's financial statements have been presented fairly in accordance with accounting standards or principles. Bradshaw et al. (2001) indicates that high level of accruals more frequently receives audit opinion with modifications than firms with low accruals level. Based on the background above hypotheses this research is:

*H3: Real earnings management negatively affects audit opinion.*

## **METHODOLOGY**

### **Data and Sample Research**

The data and sample of this research are manufacturing companies listed on Indonesia Stock Exchange in the period 2014-2016. This research only uses the manufacturing industry because of real earnings management testing requires merchandise inventory data. The period 2014-2016 was used in this study because in 2012 Indonesia converged IFRS accounting standards, so as to avoid inconsistencies in financial reporting of applicable standards and adjustments to the numbers in financial statements. The data in this study is the financial statements from the web of Indonesia Stock Exchange that is [www.idx.co.id](http://www.idx.co.id) and datastream Thomson Reuters.

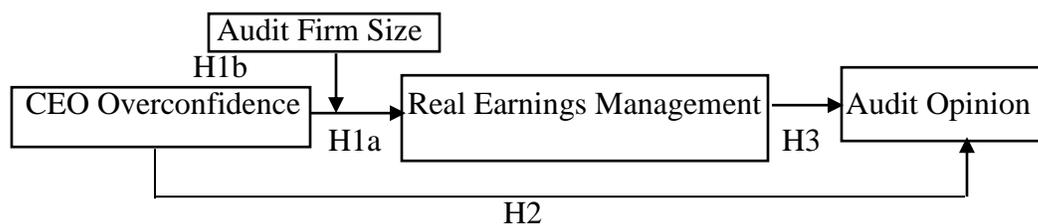
### **Research Model and Measurement of Variables**

This research model can be expressed as follows:

$$REM_{it} = \alpha_0 + \alpha_1 CEOOVER_{it} + \alpha_2 PAF + \alpha_3 CEOOVER * PAF_{it} + \alpha_4 LEV_{it} + \varepsilon \quad (1)$$

$$OA_{it} = \alpha_0 + \alpha_1 REM_{it} + \alpha_2 CEOOVER_{it} + \alpha_3 PAF_{it} + \alpha_4 SIZE_{it} + \alpha_5 LEV_{it} + \varepsilon \quad (2)$$

This research framework is illustrated as follows Figure 1:



**FIGURE 1**  
**RESEARCH FRAMEWORK**

### **Audit Opinion**

Audit Opinion (AO) is measured using dummy variables, value 1 if firm gets unqualified audit opinion, while value 0 otherwise.

### **CEO Overconfidence**

The measurement of CEO Overconfidence (CEOOVER) by calculating the three components of CEO overconfidence that is

1. overinvestment: formulated by reducing residuals over the regression of total asset growth and sales growth by value median residual industry of the year. The value of 1 if the residual company is greater than the median residual industry, value 0 if the residual company is smaller than the median residual industry. CEO overconfidence will tend to invest higher (Malmendier & Tate, 2005:2008; Ben-David et al., 2013). The overinvestment regression equation is as follows:

$$\Delta \text{Asset}_{i,t} / \text{Asset}_{i,t-1} = \alpha_0 + \beta_1 \Delta \text{Sales}_{i,t} / \text{Sales}_{i,t-1} + \varepsilon$$

2. Debt to equity ratio (division between total liabilities and total equity). The value 1 if debt to equity ratio is higher than the industry median of the year, while the value 0 if debt to equity ratio is lower than the industry median in the year. CEO overconfidence who dare to take high risks will be more looking for funding from external parties (debt) rather than using cash owned (Malmendier, 2011).
3. Dividend yield. CEO overconfidence tend to dislike dividend payouts to keep the cash reserves used to fund future investments (Ben-David et al., 2013; Deshmuk et al., 2013). Value 1 if the value of the dividend yield is zero and the value 0 otherwise. The CEO overconfidence score is 1 if at least two of the above three components have a value of 1 and a value of 0 otherwise.

### **Public Accounting Firm Size**

The Public Accounting Firm (PAF) size is measured using a dummy variable that is a value of 1 if the firm is audited by Big 4 and value 0 otherwise.

### **Real Earnings Management**

Real Earnings Management (REM) is calculated by using 3 proxies, namely sales manipulation, overproduction and discretionary expenditure referring to previous research (Rocychowdhury, 2006; Cohen et al., 2008; Kouaib & Jarboui, 2017) formulated as follows:

### Sales manipulation

$$CFO_t/A_{t-1} = \alpha_1 (1/A_{t-1}) + \beta_1 (S_t/A_{t-1}) + \beta_2 (\Delta S_t / A_{t-1}) + \varepsilon_t \quad (1)$$

$CFO_t$  is the operating cash flow period $t$ , divided by total assets of period $t-1$ ,  $S_t$  is sales in period $t$ , and  $\Delta S_t$  is sales difference in period $t$  and  $t-1$ . The negative residual value indicates a sales manipulation.

### Overproduction

$$PROD_t/A_{t-1} = \alpha_1 (1/A_{t-1}) + \beta_1 (S_t/A_{t-1}) + \beta_2 (\Delta S_t / A_{t-1}) + \beta_3 (\Delta S_{t-1} / A_{t-1}) + \varepsilon_t \quad (2)$$

$PROD_t$  is the production cost in period $t$ , divided by total asset in period $t-1$ ,  $PROD_t = COGS_t + \Delta INV_t$ ,  $S_t$  is sales in period $t$ ,  $\Delta S_t$  is sales difference in period $t$  and period $t-1$ , and  $\Delta S_{t-1}$  is the sales difference in period  $t-1$  and  $t-2$ . Positive residual values indicate an overproduction.

### Discretionary expenditure

$$DIEXP_t/A_{t-1} = \alpha_1 (1/A_{t-1}) + \beta_1 (S_{t-1}/A_{t-1}) + \varepsilon_t \quad (3)$$

$DIEXP_t$  is discretionary expenditure (e.g., research and development, selling, general and administration expense) in period $t$ , divided by total assets in period $t-1$ ,  $S_t$  is sales in period $t-1$ . The residual value is negative indicate discretionary expenditure budget cuts.

This study combines the value of real earnings management (sales manipulation, overproduction, discretionary expenditure budget cuts) to obtain the total value of the real earnings management component performed by adding the standardized residual values of the three components (Cohen et al., 2008, Kouaib & Jarboui, 2017) are as follows:

$$REM = AbnCFO * (-1) + AbnOP + AbnDIEXP * (-1)$$

### Control Variables

The control variables used in this research are:

1. Leverage (LEV) is the level of debt owned by the company as measured by using the formula total debt divided by total assets.
2. Company Size (SIZE) measured using the formula  $\ln(\text{Total Assets})$  which shows the company's performance (Zang, 2012).

## RESULTS

### Descriptive Statistics

This research performs testing on manufacturing companies listed in Indonesia Stock Exchange period 2014-2016. The number of samples that meet the criteria and used in this study is 342 observations (114 companies). The descriptive statistics is in Table 1.

The value of CEOOVER explains that there are 156 observations that have CEO overconfidence and the remaining 186 observations that are not led by CEO overconfidence. The number indicates that manufacturing firms in Indonesia led by CEO overconfidence are fewer than those who do not. The REM (Real Earnings Management) mean value is 0.0000003, with a maximum value of 8.70538 and a minimum value of -7.55523. This illustrates that on average

the manufacturing companies listed on the Indonesia Stock Exchange during the study period tend to perform real earnings management income increasing. The value of an audit opinion indicates that a total of 116 observations have unqualified opinion, the remaining 226 observations have opinions other than unqualified. The value of PAFSIZE indicates that there are 151 observations audited by the big 4 and 191 observations audited by non-big 4. The company size (SIZE) calculated from the total natural logarithm of the asset, averaging 21.59613 with a maximum value of 26.27574 (Rp.257,875,000,000) and a minimum value of 18.18803 (Rp79,243,086). The mean DTA (Debt to Total Assets) value is 0.3175205, with a maximum value of 4.780508 and a minimum value of 0. Table 2 shows the correlation test results of each research variable.

Variable	Obs.	Mean	Std. Dev.	Min	Max
CEOOVER	342	0.4561404	0.4988024	0	1
REM	342	0.0000003	2.106279	-7.55523	8.70538
OPINION	342	0.3391813	0.4741251	0	1
PAFSIZE	342	0.4415205	0.4972959	0	1
CEOOVER&PAFSIZE	342	0.1461988	0.3538231	0	1
REM&PAFSIZE	342	0.1678525	1.610841	-7.55523	8.70538
SIZE	342	21.59613	1.563177	18.18803	26.27574
DTA	342	0.3175205	0.5117659	0	4.780508

Key: CEOOVER=CEO Overconfidence; REM=Real Earnings Management; Opinion=Audit Opinion; PAFSIZE=Size of Public Accounting Firm; SIZE=Company Size; DTA=Debt to Total Assets.

	CEOOVER	REM	OPINI	PAFSIZE	DTA	SIZE
CEOOVER	1					
REM	0.1899*	1				
OPINI	-0.0857	0.104	1			
PAFSIZE	-0.2232*	-0.1607*	0.0222	1		
DTA	0.1304*	0.1759*	0.0504	-0.1907*	1	
SIZE	0.0265	-0.1527*	-0.1118	0.4242*	0.014	1

Note: \*significant at the 0.10 level.

## Hypothesis Testing

Hypothesis testing using multiple regression and logistic analysis. Table 3 shows the results of the first and second hypothesis testing relationships between CEO overconfidence, public accounting firm size and the real earnings management shown in the table below:

The results of hypothesis testing in this study indicate that *Hypothesis 1a* is statistically accepted ( $p\text{-value} \leq 0.01$ ), which means that CEO overconfidence have a positive effect on real earnings management. This suggests that firms led by CEO overconfidence will have a tendency to earn real earnings management because CEO overconfidence has a tendency to try to meet or exceed expectations of specific earnings targets and desire to demonstrate competence and ability. This study also shows that the public accounting firm size negatively affects real earnings management (on models 1 and 2). This indicates that the size of the big 4 public accountant firm has a higher level of independence and competence so that the company's audited tendency of real earnings management is getting smaller. The public accounting firm (big 4) has a greater

effort to maintain reputation and avoid the risk of litigation (Johnstone & Bedrad, 2004; Defond & Zhang, 2014).

Variable independent	REM		REM	
	1		2	
CEOOVER	0.630878***	0.006	0.376632	0.139
PAFSIZE	-0.42876*	0.076	-0.70203**	0.019
CEOOVER*PAFSIZE			0.624157	0.212
DTA	0.564355***	0.000	0.514976***	0.000
_cons	-0.27766	0.154	-0.1166	0.569
F	14.69		11.27	
p-value	0.000		0.000	
R <sup>2</sup>	0.0688		0.0737	
Adj R <sup>2</sup>	0.0605		0.0627	
Sample size	342		342	

Note: \*significant at the 0.10 level, \*\*Significant at the 0.05 level.  
\*\*\*Significant at the 0.01 level.

However, in the model 2 of this study shows that *Hypothesis 1b* is statistically rejected ( $p\text{-value} \geq 0.05$ ) i.e. the public accounting firm size does not moderate the relationship between CEO overconfidence and real earnings management. The existence of real earnings management is not an easy thing to detect and is not a concern or the focus of auditors to detect it (Kim & Sohn, 2008). The results of *Hypothesis 2* and *3* testing relationships of CEO overconfidence, real earnings management, and audit opinion are shown in Table 4 below.

	Audit Opinion	
	ceoover	-0.4722**
rem	0.105139*	0.071
dta	0.18392	0.41
size	-0.13313*	0.086
_cons	2.342038	0.161
Chi <sup>2</sup>	11.34	
p-value	0.023	
Pseudo R <sup>2</sup>	0.0259	
Sample size	342	

Note: \*significant at the 0.10 level, \*\*Significant at the 0.05 level. \*\*\* Significant at the 0.01 level.

The result of the second hypothesis test shows that CEO overconfidence has a negative effect on audit opinion. It is shown in  $p\text{-value} \leq 0.01$  so it is concluded that *H2* is statistically accepted. The results of this study indicate that companies led by CEO overconfidence tend to have audit opinions other than unqualified. This is because CEO overconfidence have a tendency to be less careful in estimating returns, have the courage to take high risks and make earnings management (Malmendier & Tate, 2005; Kolasinski & Li, 2013; Hirshleifer et al., 2012; Hsieh et al., 2014, Hribar & Yang, 2016; Kouaib & Jarboui, 2016; Kouaib & Jarboui, 2017).

The results of *Hypothesis 3* testing is statistically accepted. This is shown in the  $p$ -value  $\leq 0.10$  which examines the effect of real earnings management on audit opinion. The results show that companies that perform real earnings management tend to have unmodified audit opinions. Real earnings management is an earnings management that is difficult to detect and does not become the focus of the auditor's attention because real earnings management does not violate the applicable standards or accounting principles (Kim & Sohn, 2008). Real earnings management such as sales discounting or overproduction will be considered as one of the company's way to face business competition. Similarly, real earnings management in the form of budget cuts in research and development, advertising and employee training can be considered as one of the company's efficiency.

The result of the fourth hypothesis testing can be stated that there is no indirect relationship (mediation) between CEO overconfidence, real earnings management and audit opinion as indicated by  $p$ -value  $\geq 0.05$  (table not presented). This study proves that CEO overconfidence is directly related to audit opinion, as well as real earnings management directly related to audit opinion.

## DISCUSSION AND CONCLUSION

This study examines the relationship between CEO overconfidence, the public accounting firm size, real earnings management and audit opinion. The results of this study indicate that CEO overconfidence has a positive effect on real earnings management. The results of this study are consistent with research conducted by Hribar & Yang (2016), Kouaib & Jarboui (2016), Kouaib & Jarboui (2017). CEO overconfidence always wants to achieve the earnings target and trying to show the ability and competence.

Nevertheless, the partial test of each real manipulation activity shows that CEO overconfidence negatively affects the real earnings management of discretionary expenditure activities. It supports a number of previous studies that CEO overconfidence tend to overinvest and budget cut of discretionary expenditure (Malmendier & Tate, 2005; Malmendier et al., 2011; Hirshleifer et al., 2012; Ben-David et al., 2013; Chen et al., 2014; Bharati et al., 2016). The public accountant firm size negatively affects the real earnings management. The result can be concluded that the public accounting firm size can be a prediction whether the company has a tendency to perform real earnings management one of which can be predicted from the public accounting firm size.

This study shows that the public accounting firm size does not mitigate the relationship between CEO overconfidence and real earnings management. Likewise, this study shows that real earnings management has a positive effect on audit opinion. Real earnings management is not the focus of the auditor because it does not violate the accounting standards or principles (Kim & Sohn, 2008). The results of this study also indicate that CEO overconfidence has a negative effect on audit opinion. CEO overconfidence tends to take risks to make auditors cautious in auditing the company related issues going concern and tendencies CEO overconfidence to make real earnings management, fraud and restatement of financial statements (Schrand & Zechman, 2012; Presley & Abbott, 2013; Johnson et al., 2013; Koloub & Shoorvarzy, 2015; Hribar & Yang, 2016; Kouaib & Jarboui, 2016).

This study also shows that there is no mediation relationship between CEO overconfidence, real earnings management and audit opinion. CEO overconfidence as well as real earnings management has a direct relationship with audit opinion. The limitations of this study are the measurement of CEO overconfidence has not described the existence of CEO

overconfidence so that required other calculations on CEO overconfidence measurement, for example using content analysis.

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