THE IMPACT OF CEO OVERCONFIDENCE AND BUSINESS STRATEGY ON REAL EARNINGS MANAGEMENT

Paulina Sutrisno

ABSTRACT

The purpose of this research is whether the business strategy of cost leadership and differentiation affects real earnings management. In addition, this research examines the impact of CEO overconfidence on the relationship between business strategy (cost leadership and differentiation) and real earnings management. The sample used in this research are non-financial companies listed on the Indonesia Stock Exchange in the period 2012-2018. The results of this research indicate that the cost leadership strategy has a positive effect on real earnings management, while the differentiation strategy has a negative effect on real earnings management. Meanwhile, CEO overconfidence does not affect the relationship between cost leadership and differentiation business strategies on real earnings management.

Keywords: CEO overconfidence, cost leadership, differentiation, real earnings management

INTRODUCTION

Porter's (1980) business strategy typologies that are commonly recognized are cost leadership and business differentiation strategies (Bankers et al. 2011; Kim et al. 2004; Kald 2003; David et al. 2002; Campbell-Hunt 2000). The cost leadership strategy focuses more on investment in production facilities, conservative and cautious supervision in controlling total operating costs, as well as tight control of costs by suspending costs related to innovation or marketing, even cutting prices in selling their products (Porter 1985; Valipour 2012). The differentiation of business strategy is to develop a unique product or service to maintain customer loyalty and to create a brand. Companies that offer high-quality products or services, as well as unique characteristics will have prices that tend to be high (Valiapour 2012).

Business strategy is a factor that influences the company's operating style can encourage management to make earnings management. This was proved by Wu et al. (2015) which shows that the selection of business strategies coupled with the pressure of market competition causes the tendency of high levels of real earnings management. In this research shows that companies with cost leadership business strategies tend to do real earnings management while companies with differentiation business strategies are less like doing real earnings management. This is because the business differentiation strategy requires innovation and high investment in research and development activities compared to the cost leadership strategy which emphasizes more on spending efficiency. Miller (1987) shows that companies with differentiation business strategies tend to invest in high research and development activities to increase innovation and enhance the ability to compete with competitors' innovation strategies. The existence of market competition will cause a high level of real earnings management if the company uses the cost leadership business strategy, but does not affect the company with a differentiation strategy (Wu et al. 2015).

Real earnings management is an important issue to be investigated because the survey conducted by Graham et al. (2005) show that 80% of US financial executives do like the practice of real earnings management by cutting discretionary expenditure budgets to achieve certain earnings targets in the current period. Real earnings management is earnings manipulation that tends to be favored by company management because its existence is difficult to detect by external parties and does not concern the auditor to detect it compared to accrual earnings management because it does not violate applicable accounting standards, however real earnings management has sufficient negative impacts significant for the company going forward (Kim and Sohn 2013). Companies that do real earnings management will lose competitive power because of the reduced innovation strategies undertaken by the company so as to reduce the company's operational performance going forward (Gunny 2010; Tabassum et al. 2015).

This study developed a previous study conducted by Wu et al. (2015) which examines the relationship of business strategy and market competition to real earnings management in manufacturing companies in China. Porter (1980) reveals that there are internal factors that can influence the choice of a company's business strategy or a decision on the act of doing real earnings management (Kouaib and Jarboui 2016, 2017). Shefrin (2001) shows that the characteristics of psychology and sociology CEO as corporate leaders will influence the decisions taken. This reasearch aims to examine whether CEO overconfidence affects the relationship of the company's business strategy to real earnings management.

The CEO in carrying out his role has the responsibility in deciding various business policies and strategies that will be carried out by the company. CEO characteristics will influence the strategic decisions taken on the company, in other words the success of a company cannot be separated from decisions, policies and management of strategies by the CEO as the company leader (Habib and Hossain 2013; Bertrand and Schoar 2003; Donaldson and Davis 1991; Hambrick and Mason 1984). The personality of the leader will be the best reflection and prediction of the company (Galvin et al. 2015; Amernic and Craig 2010; Kouaib and Jarboui 2016). One way to identify or assess a company is to observe the identity of someone who is the center of the company itself (Galvin et al. 2015).

CEOs with personality overconfidence tend to have optimism or an excessive level of trust in an investment return (Presley and Abbott 2013) and assess too low risk (Kolasinski and Li 2013; Malmendier and Tate 2005). CEO overconfidence like excessive investment, risk-taker, unwillingness to pay dividends, like external funding, and dare to innovate (Malmendier and Tate 2005; Ben-David et al. 2013; Malmendier et al. 2011; Hirshleifer et al. 2012; Humphery-Jenner et al. 2016; Bharati et al. 2016). CEO overconfidence also tends to carry out various innovations through research and development expenditures, advertising, training and employee education (Hirshleifer et al. 2012).

Kouaib and Jarboui (2016) and Kouaib and Jarboui (2017) show that CEO overconfidence also tends to practice real earnings management, one of which is cutting the research and development expenditure budget. CEO overconfidence manages real earnings to achieve certain earnings targets, maintains reputation and credibility of its ability to the public, achieves analyst forecasts, avoids reporting of losses or decreases in profits (Roychowdhury 2006; Cohen 2008; Zang 2012; Kouaib and Jarboui 2016; Kouaib and Jarboui 2017).

Based on the description, it can be concluded that CEO overconfidence characteristics that tend to like investment strategies, innovate courage, risk takers and like research and development activities will support differentiation business strategies that require high innovation, investment in promotional activities, research and development and supported by high market competition will have a low level of real earnings management. Whereas if a company with a cost leadership strategy with a high level of market competition and led by CEO overconfidence tends to do real earnings management to maintain reputation and credibility in the public eye.

This study takes a sample of manufacturing companies in Indonesia because they have unique characteristics such as the majority being dominated by family companies and owned by certain groups so that they are more vulnerable to earnings management which is difficult to detect. In contrast to Wu et al. (2015), which was conducted with a sample of companies in China, which were dominantly controlled by the government. Family companies as described in agency theory type two, there is a conflict between majority and minority shareholders. Majority shareholders can maximize their own profits to the exclusion of minority shareholders' interests. For this reason, it is necessary to further investigate how CEO overconfidence can affect business strategy on real earnings management in a sample which is dominated by family companies that are prone to type two agency problems.

The contribution of this research is to add a literature study related to the impact of CEO overconfidence on the relationship of business strategy to real earnings management, that as far as the researcher observes, it is still rarely investigated by previous research. In addition, this study uses CEO overconfidence measurements by merging proxies (overinvestment, debt to equity, dividend yield) so that a more comprehensive measurement is obtained. In addition, this study enriches the previous literature in terms of using samples in countries dominated by family firms which are thought to be more vulnerable to real earnings management. This research also contributes to investors in assessing the company for investment purposes by considering the characteristics of the CEO and the business strategy used by the company because it is predicted to encourage real earnings management activities which in the long run will have a negative impact on the company.

LITERATURE REVIEW

Agency Theory

The agency theory stated by Jensen and Meckling (1976) explains that the shareholders (principal) and management (agent) will strive to maximize their welfare. Management as an internal party of the company has more information about the condition of the company than others so as to cause the state of information asymmetry. This state of information asymmetry is a necessary condition for the management of earnings management.

The state of information asymmetry and the characteristics of management or corporate leaders, in this case, CEOs who have high confidence (overconfidence) will affect the decisions and strategies taken on the company. Hribar and Yang (2016), Kouaib and Jarboui (2016, 2017) show that CEO overconfidence motivated conduct real earnings management to increase their credibility in the public. In addition, CEOs are motivated to perform real earnings management to achieve certain earnings targets so as to fit analyst forecasts, avoiding reporting losses and income decreasing (Gunny 2010; Cohen et al. 2008; Roychowdhury 2006; Graham et al. 2005).

Real Earnings Management

Earnings management is an attempt to manipulate company profits with the aim of increasing or decreasing profits so that it does not describe the actual condition of the company. In context, earnings management does not violate the applicable accounting standards, but it can obscure the picture of the company itself. In the research literature, earnings management is known in two forms, accrual earnings management and real earnings management. Accrual earnings management is a form of earnings manipulation using management's discretion or policy on financial reporting such as the use of certain accounting methods or policies on the use of accounting estimates. While real earnings management is earnings manipulation with the aim of increasing company profits through real activities. Real earnings management focuses on increasing profits while accrual earnings management objectively can increase or decrease profits.

Roychowdhury (2006) states that real earnings management is a form of earnings manipulation carried out to achieve certain earnings targets such as avoiding reporting loss, reporting an earnings decrease, achieving conformity with analyst predictions. Some ways to do real earnings management are through giving large discounts to increase sales, overproduction by producing goods on a large scale so that it can reduce product prices and increase earnings for the period. Another way to do real earnings management is to cut discretionary expenditure budgets such as research and development, advertising, and employee training. However, several studies show that real earnings management has a negative impact in the future, namely a decrease in the company's operational performance such as return on assets (Gunny 2010; Cupertino et al. 2016), operating cash flows (Gunny 2010). The findings of Tabassum et al. (2015) showed that real earnings management carried out through sales manipulation had a negative impact on return on equity, earnings per share (EPS), and a decrease in the price to earnings ratio (PER).

Porter's Business Strategy

Porter (1985) revealed that companies that implement business strategy cost leadership, differentiation and focus will be able to increase the company's competitive advantage. The adoption of differentiation strategy is characterized through the high promotion of product quality and involves high cost across functional areas that support differentiation strategies. Yamin et al. (1999) stated that high quality of products will show high market demand while companies adopting cost leadership strategy are

achieved through high market share and production volume. However, Porter (1980) argues that the success of the company's business strategy is also influenced by the leadership style, corporate culture and environment.

Cost Leadership Strategy and Real Earnings Management

Porter (1980) offers a typology of business strategy that is commonly used to demonstrate the success of a business. Cost leadership strategy is usually a market leader because it is more cost-less compared to competitors with similar products, is very concerned about the use of assets, concentrates on worker productivity and discretionary cost (Hambrick 1983). Companies with cost leadership strategy have high market effectiveness compared to companies with other business strategies (Yamin et al. 1999).

Jermias (2008), Valipour et al. (2012), Wu et al. (2015) states that companies using cost leadership strategies require strong external funding to achieve certain earnings or target costs by striving to achieve economies of scale and creating efficient operational activities and excellence. Firms with cost leadership strategies tend to have lower profit margins than firms using differentiation strategies and possible funding difficulties from their own internal business. Due to the low-profit margin, companies with cost leadership strategies will take time to maintain profitability at some level, which will encourage earnings management.

In addition, companies with cost leadership strategy will more focus on short-term performance (Govindarajan and Fisher 1990; Singh and Agrawal 2002) so that companies with cost leadership strategy is allegedly having a strong motivation to perform real earnings management to improve their financial performance. Wu et al. (2015) show that firms with cost leadership strategies will tend to perform real earnings management. Based on the description, this research hypothesis is:

H1a: Companies with a high level of cost leadership strategy will do real earnings management.

Differentiation Strategy and Real Earnings Management

Porter (1980) explains that firms with differentiation business strategies always try to find differences with other companies to get a premium price and try to sell more products at a certain price. Companies with differentiation business strategies usually have bargaining power over suppliers so as to increase profit margins. It shows that firms with differentiation business strategies tend to have lower demand for external financing than firms with cost leadership business strategies. Hambrick's (1983) show that companies with high profitability are dominantly derived from business strategy differentiation.

Business strategy differentiation has an advantage in creating unique value. It can be characterized by various forms such as the uniqueness of the brand image, service, distribution, quality and product characteristics. Companies that use business strategy differentiation does not mean to ignore costs, but costs are not key to companies. Phillip et al. (1983) stated that the business strategy differentiation tries to improve product quality so that it has a positive relationship to market share.

Research conducted by Govindarajan and Gupta (1985), Ittner et al. (1997), Simon (1987) suggests that companies with differentiation business strategies will love to innovate. Porter (1985), Jermias (2008), Wu et al. (2015) explains that firms with differentiation business strategies will exploit more new products and seek to create market opportunities that will increase the investment needs of research and development expenditures that lead to increased corporate risk. Banker et al. (2013) suggest that firms with differentiation business strategies will have a specific need for an asset due to meeting a particular design demand from customers. It can be concluded that firms with differentiation business strategies are less motivated to earn earnings management because firms with differentiation business strategies have high-profit margins and are less fond of external funding that drives company management to earnings management. Based on the description, this research hypothesis is:

H1b: Companies with a high level of differentiation strategy will not do real earnings management.

CEO Overconfidence, Business Strategy and Real Earnings Management

The overwhelming optimism and confidence of corporate CEOs can lead to bias on decision making and the tendency to perform earnings management so that their credibility, reputation and competence are recognized by the public (Schrand and Zechman 2012; Hribar and Yang 2016). Research conducted by Habib et al. (2012), Hsieh et al. (2014), Kouaib and Jarboui (2016) show that CEO overconfidence tends to earn real earnings management through sales manipulation activities and discretionary spending budget cuts rather than accrual earnings management to achieve certain earnings targets. Real earnings management has a direct impact on corporate earnings and cash flows (Graham et al. 2005; Sutrisno 2017). The CEO of the company is more flexible in real earnings management because it does not violate the standard rules that apply and is not easy to be detected by others (Kim and Sohn 2013).

Porter (1980) states that the three business strategies of cost leadership, differentiation and focus can be used to position the company's strategy in the industry. Cost leadership strategy focuses on the efficiency of production and distribution of goods and services while business strategy differentiation is a business strategy that offers a certain uniqueness, the company's success using this strategy can be done by improving technological excellence or create a level of customer intimacy. One way companies to achieve business differentiation strategy is to make a lot of investment in research and development activities (Bentley et al. 2013).

CEO overconfidence has a tendency to overinvest and actively innovate in conducting research and development. This is in line with differentiation strategies that always strive to create unique products and services so that they are less motivated to do real earnings management. While companies led by CEO with characteristics of overconfidence who use the cost leadership strategy are more motivated to do real earnings management because they try to achieve certain earnings target by making expenditure efficiency and giving sales discounts. Based on the above background, this research hypothesis is:

H2: The interaction between CEO overconfidence and business strategy relates to real earnings management.

RESEARCH METHOD

Research Sample

This study uses a sample of non-financial companies listed on the Indonesia Stock Exchange in the period 2012-2018. The use of data for non-financial companies in Indonesia aims to obtain more comprehensive and generalizable results. The research data in the form of company annual report taken from www.idx.co.id and Thomson Reuters datastream.

Research Model

This research model can be written in the form of equations as follows:

$$REM_{it} = \beta_0 + \beta_1 CL_{it} + \beta_2 DIFF_{it} + \beta_3 CEOOVER_{it} + \beta_4 CL_{it}*CEOOVER_{it} + \beta_5 DIFF_{it}*CEOOVER_{it} + \beta_6 SIZE_{it} + \beta_7 LEV_{it} + \beta_8 ROA_{it} + \beta_9 PL_{it} + \varepsilon$$

Information:

REM	=	Real Earnings Management
CL	=	Operating Asset Turnover (Cost Leadership Strategy)
DIFF	=	Profit Margin (Differentiation Strategy)
CEOOVER	=	CEO Overconfidence
SIZE	=	Firm Size (Ln Total Assets)
LEV	=	Debt To Total Assets
ROA	=	Return On Assets
PL	=	Profit/Loss

CEO Overconfidence

The measurement of CEO overconfidence refers to the research of Kouaib and Jarboui (2016) by calculating the three components of CEO overconfidence that match data availability in Indonesia. The three components are (1) overinvestment is formulated as follows residuals regression of asset growth and sales growth with the median industry residual value of the year. A value of 1 if it shows the residual company is greater than the median residual industry, value 0 otherwise. CEO overconfidence will tend to have high levels of investment (Malmendier and Tate 2005, 2008; Ben-David et al. 2013). The overinvestment regression equation is as follows:

$$\Delta Asset_{i,p}/Asset_{i,p-1} = \alpha_0 + \beta_1 \Delta Sales_{i,p}/Sales_{i,p-1} + \varepsilon$$

(2) Debt to equity ratio. A value of 1 if the debt to equity ratio is higher than the industry median of the year, while the value 0 if otherwise. CEO overconfidence dares to take a high risk will be more to seek funding with debt than using cash (Malmendier 2011).

(3) The dividend yield measures the dividend payout of a company. CEO overconfidence tends to dislike dividend payouts because CEO overconfidence seeks to save cash reserves that will be used for future investments (Ben-David et al. 2013). Value 1 if the dividend yield is zero and the value 0 otherwise.

CEO overconfidence in this research uses a dummy variable, the value is 1 if two of the three CEO overconfidence proxies are met, the value is 0 if otherwise. This study conducts sensitivity testing by measuring CEO overconfidence using only proxy overinvestment. This is based on a number of previous studies which only used measurements of overinvestment as a proxy for overconfidence. Overinvestment is considered as a measurement that describes overconfidence because CEO who have characteristics of overconfidence tend to invest excessively.

Company's Strategy

The measures of company's strategy refer to Wu et al. (2015) and Banker et al. (2011) using accounting data in determining the business strategy undertaken by the firm, which is considered more appropriate to describe the proxy of business strategy as it demonstrates more realized strategies and can reduce perceptions bias (David et al. 2002; Mintzberg 1978). First, companies with cost leadership strategy will strive to achieve operational efficiency. Asset turnover reflects cost efficiency by calculating the ratio between the output (sales) and input (capital asset), the higher of ratio value is then associated company using cost leadership strategy (David et al. 2002; Hambrick 1983). The asset turnover formula as a measure for determining cost leadership strategy refers to previous research (Wu et al. 2015; Wang 2013; Banker et al. 2011, 2013; Selling and Stickney 1989):

Operating asset turnover (CL) = Sales / Average operating assets

Operating Assets = Total assets - cash & short-term investments

High operating asset turnover shows that companies use cost leadership strategies that emphasize the efficiency of business operations and good use of resources.

Second, Porter (1985) states that the business strategy of differentiation is achieved through expenditure related to promotion, research and development as well as spawning related to the improvement of product and service quality to support business strategy of differentiation. The calculation of business strategy differentiation refers to previous studies conducted by Hambrick (1983), Selling and Stickney (1989), Banker et al. (2011, 2013), Wu et al. (2015) which uses profit margin as a measure of strategy differentiation with the following formula:

Profit Margin (DIFF) = (Operating Profit + Selling, General & Administrative Expense) / Sales

Companies with high profit margins indicate that companies use differentiation strategies.

Real Earnings Management

The measurement of real earnings management refers to previous research (Roychowdhury 2006; Cohen et al. 2008; Kouaib and Jarboui 2017) measured using 3 proxies:

Sales Manipulation: $CFO_p / A_{p-1} = \alpha_1 (1/A_{p-1}) + \beta 1 (S_p / A_{p-1}) + \beta 2 (\Delta S_p / A_{p-1}) + \varepsilon_p$

CFO_p is a cash flow operating period$_p$, divided by total asset$_{p-1}$, S_p is sales in the current period, and ΔS_p is the sales difference in the current period with the previous period. The negative residual value indicates that the company manipulates the sale by giving large discounts or providing soft loan facility.

Overproduction: $PROD_p / A_{p-1} = \alpha_1 (1/A_{p-1}) + \beta_1 (S_p/A_{t-1}) + \beta_2 (\Delta S_p/A_{p-1}) + \beta_3 (\Delta S_{p-1}/A_{p-1}) + \varepsilon_p$

$PROD_p$ is the production cost of the period$_p$, divided by total asset$_{p-1}$, $PROD_p = COGS_p + \Delta INV_p$, S_p is sales in the current period, ΔS_p is the difference between the current period sales with the previous period and ΔS_{p-1} is the sales difference in the period $_{p-1}$ and $_{p-2}$. The positive residual value means that the company is allegedly doing real earnings management by doing large-scale production to reduce the value of COGS.

Discretionary Expenditure: $DISEXP_p / A_{p-1} = \alpha_1 (1/A_{p-1}) + \beta_1 (S_{p-1}/A_{p-1}) + \varepsilon_p$

$DISEXP_p$ is a discretionary expenditure (research and development, sales expenses, general and administrative expenses) in the period, divided by total asset$_{p-1}$, S_{p-1} is sales in the previous period. The negative residual value indicates that the company is allegedly doing real earnings management by cutting discretionary spending budget.

Real earnings management is the combined standardized residual value of sales manipulation, overproduction, discretionary expenditure (Cohen et al. 2008; Zang 2012, Kouaib and Jarboui 2017) in the following:

REM = ACFO*(-1) + APROD + ADISEXP*(-1)

RESULT AND ANALYSIS

Descriptive Statistics

This study tested the non-financial companies listed on the Indonesia Stock Exchange period 2012 - 2018. The number of observations in this study was 2408 (344 companies). This study uses STATA software in data processing and statistical testing of panel data. For the number of outliers in this study, winzorising (1.99) was carried out for the variables of cost leadership, profit margin, overinvestment, ROA and LEV. Here is a description of the descriptive statistics in this study:

Table 1 Descriptive statistics in this study shows the mean REM (combined third proxy: sales manipulation, overproduction, discretionary expenditure) of -0.0000001. This illustrates that on average the non-financial companies listed on the Indonesia Stock Exchange in the period of study perform real earnings management income decreasing.

Table 1: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
REM	-0.0000001	2.339548	-79.9139	43.22686
COSTLEADERSHIP	0.8628473	1.082393	0.01167	18.28556
DIFFERENTATION	0.238088	0.2404674	-1.8083	0.829108
CEOOVER	0.3833056	0.4862927	0	1
OVERINVEST	-2.110058	8.597935	-38.212	29.95577
SIZE	21.13491	1.877971	11.04292	26.55369
LEV	0.3388627	0.3198538	0.000567	4.068775
ROA	0.0766951	0.118325	-0.47251	0.633336
PL	0.2174777	0.4126326	0	1

REM = real earnings management, CL = operating asset turnover (cost leadership strategy), DIFF = profit margin (differentiation strategy), CEOOVER = CEO overconfidence, SIZE = firm size (Ln total assets); LEV = debt to total assets; ROA = return on assets, PL = profit / loss.

This is shown from the negative marked average value. The mean value of CL (operating asset turnover) is 0.8628473. Companies with high asset turnover are suspected as companies that use cost leadership business strategy. The mean value of DIFF (Profit Margin) of non-financial companies listed on the Indonesia Stock Exchange is 0.238088. Companies that have a high-profit margin value is suspected as a company that uses business strategy differentiation. The value of CEOOVER shows 923 observations that have CEO overconfidence and the remaining 1485 observations do not have CEO overconfidence. The number indicates that firms headed by CEO overconfidence are fewer than not. The mean value of overinvestment of -2.110058 which means that on average the non-financial companies that are sampled in this study do not invest excessively.

Hypothesis Testing

This study examines the influence of CEO overconfidence on the relationship of business strategy to earnings management. Table 2 shows the results of testing the research hypothesis. The value of F in each test indicates a significant result with prob ≤ 0.01 which means there is a regressional relationship between independent variables with the dependent variable or fit model.

The results of testing hypotheses 1a and 1b show that the cost leadership strategy has a positive effect on real earnings management while the differentiation strategy has a negative effect on real earnings management. This is indicated by p-value ≤ 0.01, so it can be concluded that H1a and H1b cannot be statistically rejected (see the five regression equations in table 2 - hypothesis testing results). Companies that use the cost leadership strategy tend to do real earnings management because this business strategy emphasizes spending efficiency to generate high profits. This is in line with the way that management uses real earnings management. Companies with differentiation business strategies tend not to do real earnings management because

companies that implement this business strategy actually need high innovation so that they do not overproduction or budgetary discretionary expenditure cuts, but instead will be more interested in doing a number of expenditure activities such as advertising, employee training, research and development.

Table 2: **Hypothesis Testing Results**

VARIABLES	Model 1	Model 2	Model 3
COSTLEADERSHIP	0.417***	0.418***	0.307**
	(0.000)	(0.000)	(0.017)
DIFFERENTATION	-1.093***	-1.092***	-1.229**
	(0.004)	(0.004)	(0.013)
CEOOVER		0.0408	-0.125
		(0.766)	(0.509)
CL-OVER			0.149
			(0.157)
DIFF-OVER			0.176
			(0.662)
SIZE	0.108*	0.107*	0.105*
	(0.093)	(0.094)	(0.097)
LEV	-0.0339	-0.0388	-0.065
	(0.902)	(0.888)	(0.813)
ROA	-2.857***	-2.832***	-2.819***
	(0.001)	(0.001)	(0.001)
PL	-0.226	-0.225	-0.226
	(0.295)	(0.297)	(0.294)
Constant	-2.034	-2.047	-1.847
	(0.148)	(0.146)	(0.183)
Adjusted R2	0.0279	0.0281	0.0319
F value	41.9	42.04	44.97
F Sig.	0.000	0.000	0.000

REM = real earnings management, CL = operating asset turnover (cost leadership strategy), DIFF = profit margin (differentiation strategy), CEOOVER = CEO overconfidence, SIZE = firm size (Ln total assets); LEV = debt to total assets; ROA = return on assets, PL = profit / loss.
*)10%, **)5%, ***)1%

In testing the research model without moderating variables or with a number of moderating variables, the results of testing business strategies against real earnings management show consistent results. The results of this study also show that CEO overconfidence has no impact on real earnings management (see the results of the second regression equation in table 2 - hypothesis testing results). Often in companies, the management of the company's finances is the responsibility of the CFO, not the CEO (Hsieh et al., 2014). However, the results of testing the hypothesis of this study in the regression equations three (see table 2) indicate that CEO overconfidence does not moderate the relationship between business strategy (cost leadership and differentation) and real earnings management (p-value ≥ 0.05). This is because the selection and determination of a company's business strategy is not only a CEO's decision but also influenced by other things such as business environment factors, market competition, the company's characteristics and competencies, as well as the presence of external auditors can reduce the level of real earnings management. The company is usually not dominated by one particular business strategy but uses a variety of business strategies that are in line with the product line or service. Likewise, the application of a company's business strategy is influenced by various other factors, not only based on CEO characteristics alone, so that the interaction between CEO overconfidence and business strategy is not related to real earnings management.

Sensitivity Analysis

Sensitivity analysis in this research is done by testing the CEO overconfidence by using proxy overinvestment which is considered the most representative characteristic of overconfidence. The following sensitivity analysis results are shown in table 3: From the test results indicate that there is no significant change in results if CEO overconfidence is measured by using the combination of the three proxies into dummy variables and if the CEO overconfidence is measured using proxy overinvestment. Testing CEO over-confidence using proxy investment is considered more appropriate than the two other CEO proxy overconfidence if done partially test (Debt to Total Assets and Dividend Yield).

Table 3: Sensitivity Analysis Test

VARIABLES	Model 1	Model 2
COSTLEADERSHIP	0.418***	0.395***
	(0.000)	(0.000)
DIFFERENTATION	-1.100***	-1.141***
	(0.004)	(0.002)
OVERINVESTMENT	-0.004	-0.0164
	(0.580)	(0.199)
CLOVERINVEST		0.0135***
		(0.008)
DIFFOVERINVEST		0.00283
		(0.926)
SIZE	0.108*	0.0877
	(0.089)	(0.120)
LEV	-0.0428	-0.015
	(0.878)	(0.955)
ROA	-2.893***	-2.856***
	(0.001)	(0.001)
PL	-0.231	-0.215
	(0.285)	(0.312)
CONSTANT	-2.049	-1.614
	(0.142)	(0.193)
ADJUSTED R2	0.0276	0.0348
F VALUE	42.85	54.75
F SIG.	0.000	0.000

REM = real earnings management, CL = operating asset turnover (business strategy cost leadership), DIFF = profit margin (business strategy differentiation), CEOOVER = CEO overconfidence, SIZE = firm size (Ln total assets); LEV = debt to total assets; ROA = return on assets, PL = profit / loss.
*)10%, **)5%, ***)1%

The results of testing sensitivity analysis show that companies that tend to use cost leadership strategies will do real earnings management compared to companies that tend to implement differentiation strategies. This is because companies that tend to use differentiation strategies will be motivated to carry out various innovations, research and development activities, employee training, and promotional activities and not overproduction which is a way to do real earnings management. The results of testing hypotheses 1a and 1b in the sensitivity analysis showed results that were consistent with the main test. Likewise, the interaction between the cost leadership strategy dan CEO overconfidence as measured by overinvestment shows a positive relationship to real earnings management. This shows that companies that tend to implement cost leadership business strategies coupled with CEO overconfidence will increase management motivation to do real earnings management. Companies led by CEO overconfidence with a cost leadership strategy will tend to increasingly carry out real earnings management because CEO overconfidence are encouraged to demonstrate their competence in managing the companies they lead. As the results of previous tests, the interaction between differentiation strategies and CEO overconfidence is not related to real earnings management because companies that use differentiation strategies have special market shares. The results of the sensitivity analysis also show that there are results that are consistent with the previous hypothesis testing, that is, testing of CEO overconfidence using a proxy overinvestment shows insignificant results. This is because overinvestment is only one proxy that cannot describe the characteristics of overall overconfidence.

CONCLUSION

This study examines the relationship between business strategy (cost leadership and differentiation), CEO overconfidence to real earnings management. The results of this study indicate that business strategy cost leadership has a positive effect on real earnings management, while business strategy differentiation negatively affects real earnings management. Business strategies cost leadership to strive for cost efficiency by increasing production volume to reduce COGS value, expanding market share by providing discounts, cutting discretionary spending expenditures (Porter 1980; Yamin et al. 1999) in harmony with real earnings management. Contrary to the differentiation strategy that emphasizes the innovation and uniqueness of the product or service so it tends not to do real earnings management. Companies led by CEO overconfidence have no effect on real earnings management because the company's financial management is more in the responsibility of the company's CFO (Hsieh et al., 2014).

This study proves that CEO overconfidence does not moderate the relationship between cost leadership and differentiation strategy to real earnings management on the main test. This is because there are many other factors that influence the selection of corporate strategy and the actions of CEO overconfidence to make real earnings management. Nevertheless, CEO overconfidence strengthens the relationship of the cost leadership business strategy and real earnings management on sensitivity analysis. This is because CEO overconfidence seeks to demonstrate competence and ability by trying to achieve or exceed expectations of certain earnings targets (Hribar and Yang 2016; Kouaib and Jarboui 2016; Kouaib and Jarboui 2017). However, the interaction between firms with differentiation strategies and CEO overconfidence has no effect on real earnings management because firms with differentiation strategies already have their own segmented market with low business competition environment that does not encourage the company's management to earn real earnings management.

The limitation of this study is the measurement of the CEO overconfidence that still does not accurately describe the existence of the CEO overconfidence itself because of the limited information that can be obtained from company data in Indonesia. For further research, a more accurate and comprehensive proxy measure of CEO overconfidence is sought and may use longer research periods, e.g. five years to ten years to better understand the impact of CEO overconfidence, business strategy on real earnings management.

REFERENCES

Amernic, J.H., Russel J. Craig. (2010). Accounting as a Facilitator of Extreme Narcissism. *Journal of Business Ethics*, 96(1), 79-93.

Bagnoli, M. and Watts, S.G. (2000). The Effect of Relative Performance Evaluation on Earnings Management: A Game Theoretic Approach. *Journal of Accounting and Public Policy*, 19 (4/5), 377-397.

Banker, R.D., Hu, N., Pavlou, P.A. and Luftman, J. (2011). CIO Reporting Structure, Strategic Positioning, and Firm Performance. *MIS Quarterly*, 35 (2), 487-504.

Banker, R.D., Flasher, R. and Zhang, D. (2013). *Strategic Positioning and Asymmetric Cost Behavior*. Working Paper, Temple University, Philadelphia, PA.

Ben-David, I., Graham, J. R., & Harvey, C. R. (2013). Managerial Miscalibration. *The Quarterly Journal of Economics*, 128 (4), 1547–1584.

Bentley, K., Omer, T. & Sharp, N. (2013). Business Strategy, Financial Reporting Irregularities, and Audit Effort. *Contemporary Accounting Research*, 30 (2), 780-816.

Bertrand, M., Schoar, A. (2003). Managing with Style: The Effect of Managers on Firm Policies. *The Quarterly Journal of Economics*, 118 (4), 1169–1208.

Bharati, R., Thomas Doellman & Xudong Fu. (2016). CEO Confidence and Stock Returns. *Journal of Contemporary Accounting & Economics*, 12, 89–110.

Campbell-Hunt, C. (2000). What Have We Learned About Generic Competitive Strategy? A Meta-Analysis. *Strategic Management Journal*, 21 (2) 127-154.

Cohen, D. A., Dey, A., & Lys, T. (2008). Real and Accrual-Based Earnings Management in the Pre- and Post-Sarbanes-Oxley Periods. *The Accounting Review*, 83 (3), 757–787.

Cupertino, César M., Antonio Lopo Martinez, Newton Carneiro Affonso da Costa Jr. (2016). Consequences for future return with earnings management through real operating activities. *Revista Contabilidade & Finanças*, 27 (71), 232-242.

David, J.S., Hwang, Y., Pei, B.K.W. & Reneau, J.H. (2002). The Performance Effects of Congruence Between Product Competitive Strategies and Purchasing Management Design. *Management Science*, 48 (7), 866-885.

Donaldson, Lex & James H. Davis (1991). Stewardship Theory or Agency Theory: CEO Governance and Shareholder Returns. *Australian Journal of Management*, 16 (1), 49-64.

Galvin, Benjamin M., Donald Lange, Blake E. Ashforth. (2015). Narcissistic Organizational Identification: Seeing Oneself as Central to the Organization's Identity. *Academy of Management Review*, 40(2), 163–181.

Govindarajan, V. and Fisher, J. (1990). Strategy, Control Systems, and Resource Sharing: Effects on Business-Unit Performance. *Academy of Management Journal*, 33 (2), 259-285.

Govindarajan, V. and Gupta, A.K. (1985). Linking Control Systems to Business Unit Strategy: Impact on Performance. *Accounting, Organizations and Society*, 10 (1), 51-66.

Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The Economic Implications of Corporate Financial Reporting. *Journal of Accounting and Economics*, 40 (1–3), 3–73.

Gunny, K.A. (2010). The Relation Between Earnings Management Using Real Activities Manipulation and Future Performance: Evidence from Meeting Earnings Benchmarks. *Contemporary Accounting Research*, 27 (3), 855–888.

Habib, A., Sun, J., Cahan, S., Hossain, M. (2012). CEO *Overconfidence, Earnings Management and the Global Financial Crisis*. Working paper. AUT University, University of Windsor, University of Auckland, and Curtin Business School.

Habib, A., Hossain, M. (2013). CEO/CFO Characteristics and Financial Reporting Quality: A Review. *Research in Accounting Regulation*, 25 (1), 88–100.

Hambrick, D.C. (1983). High Profit Strategies in Mature Capital Goods Industries: A Contingency Approach. *Academic Management Journal*, 26 (4), 687-707.

Hambrick, D.C., Mason, P.A. (1984). Upper Echelons Theory: The Organization as a Reflection of its Top Managers. *The Academy of Management Review*, 9 (2), 193–206.

Hirshleifer, D., Low, A., Teoh, S.H. (2012). Are Overconfident CEOs Better Innovators? *Journal of Finance*, 67 (4), 1457–1498.

Hribar, P., Yang, H. (2016). CEO Overconfidence and Management Forecasting. *Contemporary Accounting Research*, 33 (1), 204-227.

Hsieh, T., Bedard, J., Johnstone, K.M. (2014). CEO Overconfidence and Earnings Management During Shifting Regulatory Regimes. *Journal of Business Finance & Accounting*, 41 (9–10), 1243–1268.

Humphery-Jenner, Mark; LingLei Lisic; Vikram Nanda; Sabatino Dino Silveri. (2016). Executive Overconfidence and Compensation Structure. *Journal of Financial Economics*, 119, 533–558.
Ittner, C.D., Larcker, D.F. & Rajan, M.V. (1997). The Choice of Performance Measures in Annual Bonus Contracts. *The Accounting Review*, 72 (2), 231-255.
Jensen, M. C. dan W. H. Meckling. (1976). The Theory of the Firm: Managerial Behavior, Agency Cost and Ownership Structure. *Journal of Financial Economics*, 3 (4), 305-360.
Jermias, J. (2008). The Relative Influence of Competitive Intensity and Business Strategy on the Relationship Between Financial Leverage and Performance. *The British Accounting Review*, 40, 71–86.
Kald, M. (2003). Strategic Positioning: A Study of the Nordic Paper and Pulp Industry. *Strategic Change*, 12 (6), 329-343.
Karuna, C., Subramanyam, K.R. & Tian, F. (2012). *Industry product market competition and earnings management*. Paper Presented at the American Accounting Association Financial Accounting and Reporting Section Mid-Year Conference.
Kim, E., Nam, D. & Stimpert, J.L. (2004). Testing the Applicability of Porter's Generic Strategies in the Digital Age: A Study of Korean Cyber Malls. *Journal of Business Strategies*, 21 (1), 19-45.
Kim, Jeong-Bon & B. C. Sohn. (2013). Real Earnings Management and Cost of Capital. *Journal of Accounting and Public Policy*, 32 (6), 51-543.
Kolasinski, Adam C., & Xu Li. (2013). Can Strong Boards and Trading Their Own Firm's Stock Help CEOs Make Better Decisions? Evidence from Acquisitions by Overconfident CEOs. *Journal of Financial and Quantitative Analysis*, 48, 1173-1206.
Kouaib, A., Jarboui, A. (2016). The Moderating Effect of CEO Profile on the Link Between Cutting R & D Expenditures and Targeting to Meet/Beat Earnings Benchmarks. *Journal of High Technology Management Research*, 27 (2), 140–160.
Kouaib, A., Anis Jarbouib. (2017). The Mediating Effect of REM on the Relationship Between CEO Overconfidence and Subsequent Firm Performance Moderated by IFRS Adoption: A Moderated-Mediation Analysis. *Research in International Business and Finance*, 42, 338–352.
Li, Y., Xiong, D., Zhang, Z. & Liu, L. (2007). The Theory and the Behavior of Corporate Finance. *Management World*, 11, 108-118.
Malmendier, U., Tate, G. (2005). CEO Overconfidence and Corporate Investment. *Journal of Finance*, 60 (6), 2661–2700.
Malmendier, U., Tate, G. (2008). Who Makes Acquisitions? CEO Overconfidence and the Market's Reaction. *Journal of Financial Economics*, 89(1), 20-43.
Malmendier, U., Tate, G., Yan, J. (2011). Overconfidence and Early-Life Experiences: The Effect of Managerial Traits on Corporate Financial Policies. *Journal of Finance*, 66 (5), 1687–1733.
Marciukaityte, D. and Park, J.C. (2009). *Market competition and earnings management*. Working Paper, available at: http://ssrn.com/abstract_1361905.
Markarian, G. & Santalo, J. (2014). Product Market Competition, Information and Earnings Management. *Journal of Business Finance & Accounting*, 41 (5/6), 572-599.
Miller, D., 1987. The Structural and Environmental Correlates of Business Strategy. *Strategic Management Journal*, 8, 55–76.
Mintzberg, H. (1978). Patterns in Strategy Formation. *Management Science*, 24 (9), 934-948.
Phillips, L.W., Chang, D.R., Buzzell, R.D. (1983). Product Quality, Cost Position and Business Performance: A Test of Some Key Hypotheses. *Journal of Marketing*, 47 (2), 26–43.
Porter, M.E. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. Free Press, New York, NY.
Porter, M.E. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. Free Press, New York, NY.
Presley, Theresa J. & Lawrence J. Abbott. (2013). AIA Submission: CEO Overconfidence and the Incidence of Financial Restatement. *Advances in Accounting, Incorporating Advances in International Accounting*, 29, 74–84.
Roychowdhury, S. (2006). Earnings Management Through Real Activities Manipulation. *Journal of Accounting and Economics*, 42 (3), 335–370.
Schrand, C.M. & Zechman, S.L.C. (2012). Executive Overconfidence and the Slippery Slope to Financial Misreporting. *Journal of Accounting and Economics*, 53 (1–2), 311–329.
Selling, T.I. and Stickney, C.P. (1989). The Effects of Business Environment and Strategy on a Firm's Rate of Return on Assets. *Financial Analysts Journal*, 45 (1), 43-68.
Shefrin, H. (2001). Behavioral Corporate Finance. *Journal of Applied Corporate Finance*, 14(3), 113-126.Simon, Herbert A. Making Management Decisions: The Role of Intuition and Emotion. *The Academy of Management Executive*, 1 (1), 57-64.
Singh, P. & Agrawal, N.C. (2002). The Effects of Firm Strategy on the Level and Structure of Executive Compensation. *Canadian Journal of Administrative Sciences*, 19 (1), 42-56.
Sutrisno, Paulina. (2017). Earnings Management: An Advantage or Disadvantage? *Accounting and Finance Review*, 2 (2), 64-72.
Tabassum, N., Ahmad Kaleem, Mian Sajid Nazir. (2015). Real Earnings Management and Future Performance. *Global Business Review*, 16 (1), 21–34.
Valipour, H., Hamid Birjandi and Samira Honarbakhsh (2012). The Effects of Cost Leadership Strategy and Product Differentiation Strategy on the Performance of Firms. *Journal of Asian Business Strategy*, 2 (1), 14-23.
Wu, P., Lei Gao, Tingting Gu. (2015). Business Strategy, Market Competition and Earnings Management Evidence from China. *Chinese Management Studies*, 9 (3), 401-424.
Yamin, Shahid, A. Gunasekaran, Felix T. Mavondo. (1999). Relationship Between Generic Strategies, Competitive Advantage and Organizational Performance: An Empirical Analysis. *Technovation*, 19, 507–518.
Zang, A. (2012). Evidence on the Trade-Off Between Real Activities Manipulation and Accrual - Based Earnings Management. The Accounting Review, 87 (2), 675–703.

Paulina Sutrisno
Trisakti School of Management
Jl. Kyai Tapa No. 20 Grogol, Jakarta Barat
Email: paulina@stietrisakti.ac.id