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The Relationship between Sustainable Management and Earning Management of Thai Listed Firms in SET100 Index

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ABSTRACT

Objective – The purpose of this study is to test the effect of sustainable management on earning management. This study's sample includes 100 Thai firms from the SET100 index that were listed between 2017 and 2019.

Methodology –The sample of this study consists of 256 firm-year observations. Earning management is measured by the absolute value of the standard deviation of residuals from the (Yoon et al., 2006) model, and sustainability management of the firms is measured by using a score of the sustainability awards of firms that up to the type of sustainability awards that firm get.

Findings – According to the results, sustainability management has a significant negative with earning management. The results suggested that firms that win the sustainability award have lower earning management.

Novelty – Because sustainable management is a result of the fundamental factor that is engrained in the firm on how to conduct its businesses such as corporate culture, ethics, beliefs, and social norms and they have the incentive, to be honest, trustworthy, and ethical and concerned with the impacts of earning management.

Type of Paper: Empirical

JEL Classification: M41, M49.

Keywords: Sustainable Management; Earning Management; Thai Listed Firms in SET100 Index; SET Sustainability Awards

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1. Introduction

Now a day, one of the most interesting agendas in the world is the 17 goals of the Sustainable Development Goals (SGDs) promoted by the United Nations in 2015. The goals aim at promoting human well-being, economic prosperity, and environmental safeguarding (Grimaldi et al., 2020). To achieve those goals, many firms adopt and implement sustainable management by aligning their business strategy with 17 goals. Sustainable management adopts three different principles at a macro-economic level commonly known as the three sustainability pillars: environmental integrity, economic prosperity, and social equity to the goal of business. The concept of sustainable management has been continually evolving. Therefore, there are several definitions that describe sustainable management such as Sustainable Development (SD), Corporate Social Responsibility (CSR), and Environmental Social Governance (ESG).

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As a result, this concept emphasis on business operations regarding three main areas of responsibility: environmental, Social, and Governance which is the issue that will deliver the results and sustainable growth of the firm (McWilliams & Siegel, 2001); (Siew, 2015); (Koç & Durmaz, 2015); (Zhao et al., 2018); (Grimaldi et al., 2020). One of the most interesting research agendas to be examined by researchers connecting to sustainable management is the relationship between sustainable management and earning management. (Chih et al., 2008) suggest four hypotheses regarding sustainable management and earning management that consists of myopia avoidance hypothesis, predictable earning hypothesis, multiple objective hypothesis, and institutional hypothesis. In the myopia avoidance hypothesis, the relationship between sustainable management and earning management is negative (Hong & Andersen, 2011); (Kim et al., 2012); (Alsaadi, A., Ebrahim, M. S., and Jaafar, 2017). Next, in the predictable earning hypothesis. Based on this hypothesis, firms may smooth the earnings to the lower volatility of earnings and convey more valuable and more relevant information to other investors (Chih et al., 2008). Thus, there is a positive relationship between sustainable management and earning management (Mahjoub, 2018). Moreover, in multiple objective hypotheses. The conjecture about the relationship between sustainable management and earning management is positive (Calegari et al., 2010); (Chih et al., 2008), (Leuz & Dhananjay, 2003); (Alsaadi, A., Ebrahim, M. S., and Jaafar, 2017); (Prior et al., 2008); (Kim et al., 2012). Based on the agency problems, there is a conflict between managers and stakeholders. The managers try to divert the firm's resources to pursue their own interests while sacrificing the interest of the stakeholders but there is a risk of stiff legal and other disciplinary actions by stakeholders. Furthermore, in the institutional hypothesis. In this hypothesis sustainability management may be unrelated to earning management (Chih et al., 2008). In this regard, earning management is the result of the perverse incentives not a decline in ethics such as increased auditor acquiescence, growth in equity-based compensation, and the herding behavior of fund managers (Chih et al., 2008) , (Coffee Jr, 2003). But sustainability management is a product of business ethics and institutional factors (Chih et al., 2008).

The Stakeholder Theory was derived from (Freeman, 1984). A representation of a firm's influence on the important activities of a firm, the managers have to build the relationships with many constituent groups and that these stakeholders both affect and are affected by the action of the firm. The theory states that firms try to satisfy stakeholder's expectations. This includes the recognition that the stakeholders consider economic, social, and environmental in their investing decisions. (Friede et al., 2015) provide the evidence that there is the commitment of financial markets toward environmental, social, and governance (ESG) criteria within investment decisions. As a result, many firms adopt and implement sustainable management through aligning their business strategy. Furthermore, this study attempts to test the myopia avoidance hypothesis. Sustainable management firms conduct their businesses such as corporate culture, ethics, beliefs, and social norms (Calegari et al., 2010). Moreover, they have the incentive, to be honest, trustworthy, ethical, and concerned with the impacts of earning management. In addition, previous research provides the empirical evidence that sustainable management firms are less likely to manage earnings (Chih et al., 2008) ; (Hong & Andersen, 2011) ; (Kim et al., 2012) ; (Alsaadi, A., Ebrahim, M. S., and Jaafar, 2017).

To extend the knowledge of the relationship between sustainable management and earning management. This study introduces the perspective of Thai Listed firms. Because the Stock Exchange of Thailand recognizes the importance of sustainable capital market development. Therefore, an environmental, social, and governance (ESG) sustainability assessment has been arranged so that listed firms can use it as a guideline for developing and improving organizational sustainability processes. The SET uses the sustainability assessment results of listed firms in various processes by selecting listed firms with sustainability performance in economic, social, and environmental dimensions and will be announced as a list of sustainable stocks (Thailand Sustainability Investment: THIS). The Stock Exchange of Thailand has organized an award for listed firms on sustainability. Under the Sustainability Listed Company Awards, firms in Thailand have become more alert and continue to pay more attention to environmental, social, and corporate governance (ESG) responsibilities to respond to the needs of investors, shareholders, and stakeholders which has attracted more attention in the capital market. As a result, it leads to research questions as to how the relationship between sustainable management and earning management of Thai listed firms, especially the 100 Thai listed firms in the SET100. Because the most of listed firms that list as sustainable stocks in Thailand Sustainability Investment (THIS) and gain the Sustainability Listed Company Awards are from 100 Thai listed firms in SET100 index but not all of them. In order to fix the effect of the capital size, this study used 100 Thai listed firms in the SET100 index as the population in the research. Thus, the objective of this research is to examine the relationship between sustainable management and earning management of Thai listed firms in the SET 100 index.

The structure of the paper is outlined as follows. Section 2 provides the literature review, theoretical framework. Research Hypothesis Developments are presented in section 3. Section 4 describes the research design, sample and procedure, and variable measurement of each construct in the study. Section 5 shows the results and the reasonable discussion. The conclusion is presented in the last section.

2. Literature Review

2.1 Stakeholder theory

The Stakeholder Theory was derived from (Freeman, 1984). A representation of a firm's influence on the important activities of a firm, the managers have to build the relationships with many constituent groups and that these stakeholders both affect and are affected by the action of the firm. The stakeholders of the organization consist of shareholders, employees, customers, product manufacturers, competitors, government sectors, communities and society, and even industrial groups and government. Stakeholder theory is linked to legitimacy by focusing on the firms' policies that affect the stakeholders involved in the firms. The firms have the responsibility to meet the needs of their own stakeholder group, in other words, the matter of the firms' stakeholder management.

Taking into account the need, attention, and impact arising from the firm’s policies and operations because the firms will be able to survive progress lead to improvement and collapse is the righteousness of the stakeholders which is determined by the firms. Stakeholder theory states that firms carrying out social initiatives, including sustainable management, that affect their relationship with stakeholders can reduce agency costs (Scholtens & Kang, 2013). In addition, by engaging in sustainable management of firms’ policies and operations, the firms not only enhance stakeholder satisfaction and confidence but also profited from the special advantages of their reputability and branding among stakeholders (Mohamed et al., 2014).

2.2 Earning management

Earning management is defined as the earning adjustment in the direction that the manager wants through the external financial reporting process to obtain the benefits as required by the manager (Schipper, 1989). (Healy & Wahlen, 1999) argue that earning management occurs when managers either “misinform some stakeholders about the fundamental economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers”. (Schipper, 1989) divided methods of earnings management into accrual-based earnings management (A-EM) and real earnings management (R-EM). Accrual-based earnings management is the adjustment of the accruals part of earnings without inducing real economic consequences such as changing the estimates of warranty liabilities, depreciation, and amortization expenditure (Dechow et al., 1995). In another form of EM, Real earnings management (R-EM) is the modification of firms’ actions that affect their true economic reality such as firms will enhancement earnings by decreasing discretionary costs such as advertising, training, and R&D or optimal moment for selling (Roychowdhury, 2006) ; (Bens et al., 2003).

Earnings management occurs for a variety of reasons. The main objective of earnings management is to encourage a firm’s performance to meet the expectations of external users of the financial statements (Chen

& Hung, 2021). (Healy & Wahlen, 1999) differentiated the managers' motivations including influencing stock market perceptions, increasing management's compensation, reducing the probability of violating lending agreements, and avoiding regulatory intervention. In addition, (Gargouri et al., 2010) provides the evidence that managers manipulate accounting earnings, to minimize the tax burden, carry out changes in the control of the company, influence labor negotiations or to respond to takeover bids. If earning management is perceived as immoral by stakeholders, it leads the negative effects like high legal process costs, a decline in stock prices, high political and social costs, and a decrease in reputation, creditability, reliability, and trustworthiness with the public (Mohapatra, 2011).

2.3 Sustainable management

In 2015, United Nations promoted the Sustainable Development Goals (SDGs). The agenda embraces 17 goals, and 169 targets aim at promoting human well-being, economic prosperity, and environmental safeguarding (Grimaldi et al., 2020). In the 2030 Agenda for Sustainable Development represent a milestone to align behaviors, not only country level but company level and individual level as well. To achieve those goals, many firms adopt and implement sustainable management through aligning their business strategy with 17 goals.

Sustainable management adapts three different principles at the macro-economic level commonly known as the three sustainability pillars: environmental integrity, economic prosperity, and social equity to the goal of business. As a result, the triple bottom line concept has been introduced. In this concept, a framework to measure economic and financial performances as well as corporate strategies through three different lines across three main pillars of sustainability namely economic, environmental, and social to underline the business success (Siew, 2015) ; (Koç & Durmaz, 2015).

The concept of sustainable management has been continuing evolving. Therefore, there are several definitions that describe sustainable development such as Sustainable Development (SD), Corporate Social Responsibility (CSR), and Environmental Social Governance (ESG). As a result, this concept emphasis on business operations regarding three main areas of responsibility: environmental, Social, and Governance which is the issue that will deliver the results and sustainable growth of the firm (McWilliams & Siegel, 2001) ; (Siew, 2015) ; (Koç & Durmaz, 2015) ; (Zhao et al., 2018) ; (Grimaldi et al., 2020).

Managing the firm for sustainability must consider the balance in terms of return, resource and environmental conservation, and coexistence well with society, especially the communities surrounding the firm under good corporate governance. As a result, firms in Thailand are aware of sustainability and have developed guidelines for their operations under the concept of sustainability. These guidelines are covers economic, social, and environmental aspects under good corporate governance to achieve consistent operations in every business. Therefore, the ESG Sustainable Development Committee has been appointed since 1995 to set goals and operational guidelines for all businesses to implement, including establishing the Corporate Sustainability Guide for Listed Companies to serve as a manual for implementation in various matters which will result in effective implementation and the connection of business operations (The Stock Exchange of Thailand, 2020).

2.4 SET Sustainability Awards

The Stock Exchange of Thailand recognizes the importance of sustainable capital market development. Therefore, develop the quality of listed companies to have good corporate governance, considering all stakeholders for businesses to have balance in economic growth along with social and environmental development. Consequently, an environmental, social, and governance (ESG) sustainability assessment has been arranged so that listed firms can use it as a guideline for developing and improving organizational sustainability processes and have data for comparison (benchmarking) operations with other companies in the same industry. The SET uses the sustainability assessment results of listed firms in various processes by selecting listed firms with sustainability performance in economic, social, and environmental dimensions and will be announced as a list of sustainable stocks (Thailand Sustainability Investment: THIS). (Thailand, 2020) Stock Exchange has organized an award for listed firms on sustainability. Sustainability Awards to promote and support the potential for integrating sustainability into business processes, for continuous growth until now. Under the Sustainability Listed Company Awards, firms in Thailand have become more alert and continue to pay more attention to environmental, social, and corporate governance (ESG) responsibilities to respond to the needs of investors, shareholders, and stakeholders which has attracted more attention in the capital market. As a result, the description of environmental, social, and governance (ESG) issues related to sustainable companies affect the investment decision of investors.

Under the SET Sustainability Awards development process, the Stock Exchange of Thailand has the policy to promote and support the growth potential of the Thai capital market by praising and acknowledging honors for implementing the policy. The Stock Exchange of Thailand started organizing the SET Awards in 2003 to present awards to listed companies. Securities companies, member companies, asset management companies, financial advisory companies, other sector organizations involved in financial transactions in the capital markets, and top executives of listed firms. Annually, in 2019, the SET Awards and the SET Sustainability Awards are merged under the name SET Awards, with the consistence of two main categories of awards (The Stock Exchange of Thailand, 2020) namely.

1. Business Excellence, to support the creation of excellent performance in various fields of various stakeholders of the capital market, which is an important part of the capital market to grow with quality. It consists of the following categories of awards: Best Investor Relation Awards, Best Innovative Company Awards, Best Securities Company Awards, Best Asset Management Company Awards, Best Company Performance Awards, Best Deal of the Year Awards, and Best CEO Awards.

2. Sustainability Excellence, to support the integration of sustainability or ESG approaches into business processes for sustainable growth, including Sustainability Awards of Honor, Best Sustainability Awards, Outstanding Sustainability Awards, and Rising Star Awards.

3. Research Hypothesis Developments

There are four hypotheses regarding sustainable management and earning management (Chih et al., 2008). The first is the myopia avoidance hypothesis. In this hypothesis, the relationship between sustainable management and earning management is negative. In this regard, sustainable management is a result of the fundamental factor that is engrained in the firm on how to conduct its businesses such as corporate culture, ethics, beliefs, and social norms (Calegari et al., 2010). Firms with high sustainable management emphasis on maximize the stakeholders' wealth (Chih et al., 2008). As a result, there are augments in transparency and reduces the opportunities to manage earnings. Previous research shows that firm with high sustainable management is less likely to manage their earnings. In addition, (Hong & Andersen, 2011) investigate the relationship between corporate social responsibility and earning management of the largest 3,000 U.S. publicly traded companies in the Kinder Lydenburg and Domini (KLD) database. The findings show, that high socially responsible firms have higher quality accruals and less activity-based earning management. Moreover, (Kim et al., 2012) examine the different behaviors in financial reporting of socially responsible firms and other firms. The results show that socially responsible firms are less likely to manage earnings through discretionary accruals and manipulate the real operating activities. Furthermore, (Alsaadi, A., Ebrahim, M. S., and Jaafar, 2017) examine the effect of corporate social responsibility (potential sources of ethical principles) on the earnings quality of firms in ten European Union countries. The empirical results show that firms with a high degree of corporate social responsibility are less likely to manage earnings.

The second is a predictable earning hypothesis. Based on this hypothesis, the managers want to decrease the advantage that they have as insiders by increasing the predictability of earnings. As a result, they may smooth the earnings to lower the volatility of earnings and convey more valuable and more relevant information to other investors (Chih et al., 2008). Thus, there is a positive relationship between sustainable management and earning management. (Mahjoub, 2018) provide evidence that Saudi-listed firms which conduct sustainable management and disclose sustainability reporting have positively affected the practice of income smoothing.

The third is a multiple objective hypothesis. The conjecture of the relationship between sustainable management and earning management is positive. The reason underlying this is that managers have to serve not only shareholders but also all stakeholders in a firm such as financial claimants, customers, employees, communities, and governmental officials (Chih et al., 2008), (Jensen, 2010). Based on the agency problems, there is a conflict between managers and stakeholders. The managers try to divert the firm’s resources to pursue their own interests while sacrificing the interest of the stakeholders but there is a risk of stiff legal and other disciplinary actions by stakeholders. In the principle-agent problem, it can view sustainable management as a result of managers’ self-interest to spend the firm’s recourse on sustainable activities for their benefit by over-invest in the activities (Calegari et al., 2010). Consequently, this could be a catalyst for rent-seeking insiders to hide the firm’s true performance by conducting earning management (Chih et al., 2008), (Leuz & Dhananjay, 2003). In addition, managers use sustainable management to distract attention from any manipulation of the financial reporting (Alsaadi, A., Ebrahim, M. S., and Jaafar, 2017); (Prior et al., 2008). Firms can use sustainable management to create the perception of transparency among stakeholders to legitimize their activities and gain stakeholder support when in fact they are engaging in earnings manipulation (Kim et al., 2012).

The fourth is an institutional hypothesis. In this hypothesis sustainability management may be unrelated to earning management. In this regard, earning management is the result of the perverse incentives not a decline in ethics such as increased auditor acquiescence, growth in equity-based compensation and the herding behavior of fund managers (Chih et al., 2008), (Coffee Jr, 2003). But sustainability management is a product of business ethics and institutional factors (Chih et al., 2008). Consequently, sustainability management and earning management may be unrelated. Previous literature shows the moderating role of sustainability management on the relationship between legal enforcement and the trade-off between accrual-based earning and real earning management. Firms which sustainability management are more likely to give up real earning management than accrual earning management (Bozzolan et al., 2015)

The stakeholder theory states that firms try to satisfy stakeholders’ expectations. This includes the recognition that the stakeholders consider economic, social, and environmental in their investing decisions. (Friede et al., 2015) provide the evidence that there is the commitment of financial markets toward environmental, social, and governance (ESG) criteria within investment decisions. As a result, many firms adopt and implement sustainable management by aligning their business strategy. Furthermore, this study attempts to test the myopia avoidance hypothesis. Sustainable management firms conduct their businesses such as corporate culture, ethics, beliefs, and social norms (Calegari et al., 2010). Moreover, they have the incentive, to be honest, trustworthy, ethical, and concerned with the impacts of earning management. In addition, previous research provides the empirical evidence that sustainable management firms are less likely to manage earnings (Chih et al., 2008) ; (Hong & Andersen, 2011) ; (Kim et al., 2012) ; (Alsaadi, A., Ebrahim, M. S., and Jaafar, 2017). It leads to the hypothesis as follows. .

H1: *Firm with high sustainable management are less likely to manage earnings*.

4. Research Method

4.1 Sample Selection and Data Collection Procedure

In this study, the sample used to test the hypothesis consists of 100 Thai listed firms in SET100 index for the years 2017 - 2019. Firms having complete data for 300 firm-year observations are included in the sample. Because of the differential accounting standards by which they are bound, this constraint reduces the sample size to 256 firm-year data, reducing the number of observations from the financial industry because of the different accounting standards by which they are bound (Olveira et al., 2010)

The data of accounting information and the stock price of the firms are collected from the SETSMART, the Stock Exchange of Thailand's Thai listed company information database, while the data of firms which won SET Sustainability Awards are collected from www.set.or.th.

4.2 Methods

The aim of this study is to determine the effect of SET Sustainability Awards on earning management of Thai listed firms in SET100. As a result, the models to test the hypothesis as follows:

Equation 1:
AbsDAit = a01 + b1SAit + b2Sizeit + b3Growthit + b4LEVit + b5ROAit + b6Auditit + eit

Where:
AbsDAit = Absolute Discretionally accrual of firm i at year t;
SAit = score of the SET sustainability awards of firm i at year t;
Sizeit = natural log of total assets of firm i at year t;
Growthit = growth of sales of firm i at year t;
LEVit = total debt divided by total assets of firm i at year t;
ROAit = net income divided by total assets of firm i at year t;
Auditit = 1 if firm i at year t is audited by big 4 and 0 if not

4.3 Measure of dependent variable

The degree of earnings management, the dependent variable in the model, is measured as total accruals and discretionary accruals using a cross-sectional version of the (Yoon et al., 2006) model. Specifically, earning management is measured by the absolute value of the standard deviation of residuals from Equation 2

Equation 2:

$$TA_{it}/REV_{it} = b_0 + b_1((\Delta REV_{it} - \Delta REC_{it})/REV_{it}) + b_2 ((\Delta EXP_{it} - \Delta PAY_{it})/REV_{it}) + b_3((\Delta DEP_{it} + \Delta PEN_{it})/REV_{it}) + e_{it}$$

Where:
TA (Total accruals) = accounting earnings – CFO of firm I in year t

REV = net sales revenue of firm I in year t
REC = account receivables of firm I in year t

EXP = sum of cost of goods sold and selling and general administrative expenses excluding non-cash expenses of firm I in year t

PAY = account payables of firm I in year t
DEP = depreciation expenses of firm I in year t
PEN = retirement benefits expenses of firm I in year t

Δ = change operator

4.4 Measure of independent variable

Sustainability management of the firms is measured by using a score of the sustainability awards of the firm. The score is up to the type of sustainability awards that the firm gets.

Table 1: Type of Sustainability Awards and score.

Type of Sustainability Awards	Score
1. Sustainability Awards of Honor	5
2. Best Sustainability Awards	4
3. Highly Commended in Sustainability Awards	3
4. Rising Star Awards	2
5. Listed in THIS (Thailand Sustainability Investment)	1
6. Don’t listed in THIS (Thailand Sustainability Investment)	0

4.5 Measure of control variables

In the fixed effect of uninterest variables, following prior research, this study using firm’s size, growth, leverage, profitability, and type of audit firm are the control variables which result is the emergence of five additional variables (Dechow & Skinner, 2000) ; (Ke, 2001) ; (Richardson et al., 2002) ; (Egmond & Moratis, 2015) ; (Lhaopadchan et al., 2016) ; (Brahmana et al., 2018) ; (López-González et al., 2019). Firm’s size (Size) is calculated from natural log of firm’s total assets at the fiscal year end. Growth is calculated from a firm’s total sales at year t minus total sales at year t-1 divided by total sales at year t-1. Leverage (Lev) is calculated from a firm’s total debt divided by its total assets at the end of the fiscal year. Profitability (ROA) is calculated from firm’s net income divided by total assets at the fiscal year end. Type of audit firm is a dummy variable 1 if firm i at year t is audited by big 4 and 0 if not.

5. Results and Discussion

Table 2 reports the number of firms in each type of Sustainability Award. In 2017 there are 20 firms the get Sustainability Awards of Honor, 8 firms get Best Sustainability Awards, 9 firms get Highly Commended in Sustainability Awards, 8 firms get Rising Star Awards, 21 firms listed in THIS, and 34 firms don’t list in THIS. In 2018 there are 20 firms get Sustainability Awards of Honor, 16 firms get Best Sustainability Awards, 24 firms get Highly Commended in Sustainability Awards, 4 firms get Rising Star Awards, 26 firms listed in THIS, and 10 firms don’t list in THIS. In 2019 there are 30 firms get Sustainability Awards of Honor, 20 firms get Best Sustainability Awards, 15 firms get Highly Commended in Sustainability Awards, 6 firms get Rising Star Awards, and 29 firms listed in THIS.

Table 2: the number of firms in each type of Sustainability Awards

Items	2017	2018	2019	Total
1. Sustainability Awards of Honor	20	20	30	70
2. Best Sustainability Awards	8	16	20	44
3. Highly Commended in Sustainability Awards	9	24	15	48
4. Rising Star Awards	8	4	6	18
5. Listed in THIS (Thailand Sustainability Investment)	21	26	29	76
6. Don't listed in THIS (Thailand Sustainability Investment)	34	10	0	44
Total	100	100	100	300

Table 3: the descriptive statistics and Pearson's correlation for all variables used in the analysis.

Variables	AbsDA	SA	Size	Growth	Lev	ROA	Audit	VIF
Mean	0.257	0.965	10.730	0.103	0.512	0.092	0.939	
S.D.	0.290	1.499	0.583	0.274	0.164	0.053	0.241	
AbsDA	***1.000***							
SA	***-0.113****	1.000						1.559
Size	***0.031***	0.586**	1.000					1.807
Growth	***-0.183*****	-0.016	0.029	1.000				1.039
Lev	***-0.132****	0.070	0.312**	0.148**	1.000			1.383
ROA	***-0.003***	-0.117*	-0.303**	0.046	-0.422**	1.000		1.303
Audit	***0.091***	-0.067	-0.134*	0.052	0.105*	0.088	1.000	1.059

** P < ***0.01***; * P < ***0.05***

Table 3 reports the descriptive statistics and Pearson's correlation for all variables used in the analysis. The descriptive statistics, mean and standard deviation of absolute discretionary accrual (AbsDA) is 0.257 and 0.290, the mean and standard deviation of sustainable award (SA) is 0.965 and 1.499, mean and standard deviation of firm size (Size) is 10.730 and 0.583, mean and standard deviation of sale growth award (Growth) 0.103 and 0.274, mean and standard deviation of leverage ratio (Lev) 0.512 and 0.164, mean and standard deviation of return on assets ratio (ROA) is 0.092 and 0.53 and mean and standard deviation of big 4 auditors (Audit) is 0.939 and 0.241.

The correlation coefficients among independent variables range from -0183 to 0.586, that below the cut-off value of 0.80 recommended by (Neter et al., 1985). With respect to potential problems relating to multicollinearity, variance inflation factors (VIF) were used to provide information on the extent to which non-orthogonality among independent variables inflates standard errors. The VIFs range from 1.039 to 1.807, which is well below the cut-off value of 10 recommended by (Neter et al., 1985), meaning that the independent variables are not correlated with each other. Therefore, there are no substantial multicollinearity problems encountered in this study.

Table 4: the results of OLS regression analysis

	Earning Management		P-Value
	B	**Std. Error**	
Constant	-0.946	0.461	0.041*
Sustainability Awards	-0.046	0.015	0.003**
Size	0.122	0.043	0.005**
Growth	-0.180	0.069	0.009**
Lev	-0.354	0.132	0.008**
ROA	-0.250	0.395	0.527
Audit	0.171	0.079	0.032*
F-value	4.336		
Adj.R2	0.081		

** P < ***0.01***; * P < ***0.05***

Table 4 presents the results of the OLS regression analysis of the relationships among earning management, Sustainability Awards, Size, Growth, Lev, ROA, and Audit. First, Sustainability Awards has a significant negative with earning management (b1 = -0.046, $p < 0.01$). This result indicates that the firms which win the sustainability award have lower earning management. Because sustainable management is a result of the fundamental factor that is engrained in the firm on how to conduct its businesses such as corporate culture, ethics, beliefs, and social norms (Calegari et al., 2010). Moreover, they have the incentive, to be honest, trustworthy, ethical, and concerned with the impacts of earning management. Thus, firms with high sustainable management emphasis maximizing the stakeholders' wealth (Chih et al., 2008). The result is consistent with previous research that sustainable management firms are less likely to manage earnings (Chih et al., 2008); (Hong & Andersen, 2011); (Kim et al., 2012); (Alsaadi, A., Ebrahim, M. S., and Jaafar, 2017). Thus, Hypothesis 1 is supported.

In relation to the other control variables, the variable Size has a positive effect with earning management (b2 = 0.122, $p < 0.01$). The results indicate that managers in larger firms greater manage earnings. Because the performance of the larger firms is greater pressured by the capital market and is the focus of the analyst. As a result, larger firms have an incentive to manage earnings (Richardson et al., 2002). In addition, Growth has negative effect with earning management (b3 = -0.180, $p < 0.01$). Consistent with (Egmond & Moratis, 2015) that find the negative relation between sales growth and earning management of firms based in the U.S. Indicated that firms that are experiencing strong growth are subject to more media attention. As a result, it discourages managers to perform earnings management (Egmond & Moratis, 2015). Moreover, Leverage has negative effect with earning management (b4 = -0.354, $p < 0.01$). Consistent with (López-González et al., 2019) that find a negative relationship between leverage and earning management of 956 family firms from America, Europe, the Middle East, and Africa (EMEA), and Asia. (Dechow & Skinner, 2000) that report that firms with high leverage are less likely to report a small increase in earnings. Ke (2001) also found that firms with low financial leverage are a higher probability of reporting a small increase in earnings rather than a small decrease in earnings. Additionally, ROA is not statistically significant effect with earning management (b5 = -0.250, $p > 0.05$). Consistent with (Brahmana et al., 2018) that cannot find the relationship between ROA and earning management of 238 publicly listed firms in Bursa Malaysia. Furthermore, an Audit has a positive effect with earning management (b6 = 0.171, $p < 0.05$). Consistent with (Lhaopadchan et al., 2016) who uncover the positive relationship between the big 4 auditors and earning management of Thai listed firms.

6. Conclusion and Recommendation

The aim of this study is to investigate the relationship between sustainability management and earning management. In considering the implementation of stakeholder theory, firms try to satisfy stakeholders' expectations, the recognition that the stakeholders consider economic, social, and environmental in their investing decisions. Many firms adopt and implement sustainable management by aligning their business strategy. To test the myopia avoidance hypothesis, sustainable management firms conduct their businesses such as corporate culture, ethics, beliefs, and social norms (Calegari et al., 2010) and they have the incentive, to be honest, trustworthy, ethical, and concerned with the impacts of earning management. As a result, sustainable management firms are less likely to manage earnings (Chih et al., 2008); (Hong & Andersen, 2011); (Kim et al., 2012); (Alsaadi, A., Ebrahim, M. S., and Jaafar, 2017). In order to test the hypothesis, the population used to test the hypothesis consists of 300 firm-year observations in the SET100 index for the year 2017 – 2019. The sample consists of 256 firm-year observations. Because of the differential accounting standards by which they are bound, this constraint reduces the sample size to 256 firm-year data, reducing the number of observations from the financial industry (Olveira et al., 2010). Earning management is measured by the absolute value of the standard deviation of residuals from the (Yoon et al., 2006) model, and sustainability management of the firms is measured by using a score of the sustainability awards of firms that are up to the type of sustainability awards that firm get. The results suggested that firms that win the sustainability award have lower earning management. Because sustainable management is a result of the fundamental factor that is engrained in the firm on how to conduct its businesses such as corporate culture, ethics, beliefs, and social norms and they have the incentive, to be honest, trustworthy, and ethical and concerned with the impacts of earning management (Calegari et al., 2010); (Chih et al., 2008)

This study has an important theoretical contribution to previous knowledge and literature in the field of sustainable management. In order to confirm the myopia avoidance hypothesis in the context of 100 Thai listed firms in the SET100 index, the conceptual model of this study evolved from the application of stakeholder theory. The results show the negative relationship between sustainable management and earning management. It provides a more useful signal that if 100 Thai listed firms in the SET100 index conduct their businesses such as corporate culture, ethics, beliefs, and social norms by implementing sustainable management in firm policies and operations are less likely to manage their earnings. Thus, the myopia avoidance hypothesis is confirmed in the context of 100 Thai-listed firms in the SET100 index. To fulfill the study of this area, future studies should use all Thai Listed firms as a sample and measure earning management by using real earnings management (R-EM).

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