

Environmental Management Accounting and Financial Competitive Advantage Affecting Corporate Sustainability of Thai Companies



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Abstract

This study examined environmental management accounting (EMA) practices and financial competitive advantages (FCA) affecting corporate sustainability of a company (CSC) certified by the ISO 14001 in Thailand. A set of questionnaires was created to collect data from accounting managements of 272 companies. Multiple linear regressions were employed for data analysis. The results revealed that EMA practices and FCA had a positive influence on the CSC. The companies focused on EMA create cost management effectiveness and build strengths of higher returns. Thus stakeholders were able to recognize the information from the operational performance reports when making investment decisions. In addition, EMA also had a positive influence on FCA. Sample companies presented accounting practices in the annual reports to keep stakeholders informed about return on investment and good performance. Moreover, EMA also had a positive influence on CSC through their FCA when companies focus on accounting practices for environmental management. By having EMA and FCA, companies are able to create financial competitive advantages to attract investors and allow stakeholders to recognize the intention of the companies in being environment friendly. As a result, a companies are seen as sustainable by the stakeholders.

Keywords: environmental management accounting (EMA), corporate sustainability of a company (CSC), financial competitive advantage (FCA), stakeholder, operational performance, return on investment

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1. Introduction

EMA practices are important to assist managements in providing appropriate environmental and economic performance in the annual reports. Management needs to be more aware of the environmental issues and must include environmental management into the business planning, controlling, and decision-making for maximize company's benefits (Klaprabjorn, 2018). Business sectors need to operate without any negative impact to the society, community, and the environment as a whole. All sectors need to have consciousness of taking social and environmental responsibility into account (Malaipia & Phoprachak, 2018). This is to allow stakeholders recognize, accept, and support firms. A company with a good image of a good environmental management creates corporate sustainability in the eye of stakeholders (Laonamtha, Painoun, & Laohametanee, 2016).

A study on the environmental issues of listed companies in the stock exchange of Thailand found that larger firms paid more attention to environmental management than smaller firms (Phoprachak, 2018). Disclosures of accounting information on environmental management had a positive impact on a company (Saikon & Pramote, 2017). They can be successful in applying environmental accounting as well as influencing reputation and being recognized by stakeholders. This helps a company to create a positive impact on corporate sustainability (Laonamtha et al., 2016). For instance, the study of Klaprabjorn, Chuaychu and Chammuangpak (2019) found that the environmental management had a significant positive influence on corporate sustainability. Financial competitive advantage also had a significant positive direct influence on corporate sustainability.

In Malaysia, EMA practices were introduced to the Malaysian firms and most firms were concerned about budgeting allocation for environmental activities (Jamila, Mohamedb, Muhammadc, & Alid, 2015). In 1992, Thailand participated in the United Nations Conference on Environment issues and Development of the country. Thailand has introduced the concept of sustainable development to develop the country since then. It has also adopted a good environmental management system to change human behavior in order to have awareness in protecting natural resources and become environmental friendly. This aimed at



developing environmental management to become successful and meet the goals and sustainable long-term development (Woraphong, 2014).

In Thailand, firms have not considered the hidden costs of environmental management and tend to take visible costs into account while trying to save financial costs to improve the benefits of the firms (Disanayake et al., 2019). The environment accounting has not been much of interest to researchers while only few studies addressed the relevance and benefits of an organization from implementing an environmental management system (Burritt & Saka, 2006; Deegan, 2006; Llodra, 2006; Staniskis & Stasiskiene, 2006). For this, EMA is an accounting tool for helping organizations effectively manage environmental issues and disclose environmental information both internally and externally. In addition, stakeholders are aware of the environmental impact of the costs involved in order to obtain the information necessary to mitigate the impacts and their upcoming expenses (Fuji, Habidin, Janudin, & Ong, 2019). Most environmental costs are largely invisible, cannot be identified, add value to management accounting system and provide useful information for improving operational efficiency (Jamila et al., 2015). The environmental reporting incorporates significant expenses including fine from non-compliance or violation of environmental legislation and participating in environmental conservation activities. Thus it can create a good image to meet the information needs of stakeholders specially those who consider investment decision (PTT Chemical Public Company Limited, 2019). As such, this helps firms create FAC to attract stakeholders for making investment decision (Waheeduzzman & Ryans, 1996). The financial information in a company reports create economic judgment of investors when assessing business performance to support investment decisions (Sunthornwipat, 2019).

This study examined accounting practices of EMA and FCA affecting the CSC of certified ISO 14001 companies in Thailand. The results can benefit managements of Thai firms and relevant agencies in planning, controlling and making operational decisions related to accounting practices for more effective management of environmental performance. Firms can create a good image from environmental conservation that leads to developing economic stability. This study investigated accounting practices of CSC, FCA, and EMA affecting corporate sustainability. A research question and its hypotheses were designed as follows.

Research Question: How do EMA and FCA influence the CSC of the ISO 14001 certified companies in Thailand?

H1: EMA practices have a positive influence on the CSC of the ISO 14001 certified companies in Thailand

H2: EMA practices positively influence FCA

H3: FCA has a positive influence on the CSC of the ISO 14001 certified companies in Thailand

H4: EMA practices positively influence the CSC of the ISO 14001 certified companies through the FCA

2. Literature review

2.1. *Environmental management accounting (EMA)*

EMA is an evolution in accounting development designed for collecting environmental expenditures and reporting environmental issues affecting the organizational performance. The EMA was adopted based on the concept of nature conservation and environmental conservation as applied with the current accounting practices or the generally accepted accounting principles. It is a part of an accounting tool that helps firms reduce environmental problems for social well-being and the communities as a whole. The owners and management of the firms need to be more aware of the environmental preservation. They must also demonstrate corporate responsibility towards the environmental conservations by incorporating environmental information in either mandatory or voluntary reports. Firms should set environmental reporting standards that can benefit groups of stakeholders. Therefore, EMA can be regarded as a specialized field of accounting on environmental issues as well as general accounting (Burritt & Schaltegger, 2000).

The EMA practice includes both financial-related environmental information and physical environmental information. It can be estimated and analyzed for internal decision-making of firms (Burritt & Saka, 2006; Deegan, 2006; Llodra, 2006; Staniskis & Stasiskiene, 2006). Gray, Wang, & Gelvin (1992). The concepts of environmental accounting could be



used as a measurement tool of corporate sustainability. This was an effort to explore the central position of the "Deep Greens" environment with the deep green's holistic concept. This holistic concept aimed at influencing internal decision-making when taking environmental issues into account. Environmental accounting was designed with an environmental sustainability to protect living things on the Earth. Meanwhile, corporate sustainability aims to change the human behaviors by acting sustainably and not disturbing the ecosystem with their business operations. Thus, environmental accounting evolves towards environmental sustainability that can be indicated as costs of environmental expenditures.

Kingkaew and Padungsit (2012) found in a study that the industry sectors, governance, and audit firms had a significant correlation with the same directions of environmental disclosure while the debt structure had a significant correlation in the different direction of environmental disclosure. In another study, Suthiphan (2012) investigated environmental disclosure in a company's annual report and found that 48 companies (96%) disclosed environmental information in the annual report. Good corporate governance was mainly disclosed in the environmental disclosures of the samples. Industry sector had the highest level of environmental disclosures while technology sector disclosed less environmental information in the annual reports. The study also found that the characteristics of the industry sector and the type of business owner had a significant influence on environmental disclosures in the annual reports of listed companies in Thailand. As a result, stakeholders were aware of the environmental issues that could have negative impact on total expenses of a company (Fuji et al., 2019). As environmental costs were likely invisible, a company should provide accurate environmental information to support concerns of stakeholders (Jamila et al., 2015).

2.2. Financial competitive advantage (FCA)

FCA is most important for firms to focus on. Currently, business competition is very high with various factors beyond external control and constantly changing. Porter (1980) developed the concepts of creating competitive advantage in the industry by establishing a competitive strategy to achieve competitive advantages over competitors in the market. There were three general competitive strategies including overall cost leadership, differentiation, and cost-based focus (focusing on making a difference). Later on, Porter (1980) developed a

number of additional competitive and strategic ideas including industry analysis model, such as the five forces model and value chain concept to explain the competitive advantage of the organization. It reflects the organization's ability to operate well and its potential in different areas. The concept of competitiveness is related to the management of different organizations such as comparing advantages from different dimensions of competitive price, cost, strategy, service, and background of society. The competitive advantage can be handled independently or independently depending on the perspective of each firm (Waheeduzzman & Ryans, 1996).

As for the competitive advantage of nations, Porter (1980) proposed Porter's Diamond Model as a key factor in demonstrating industrial competitiveness with the four main factors, factor conditions, related and supporting industries, demand conditions, and context for firm strategy and rivalry. In addition, Leong, Snyder, and Ward (1999) offered four indicators of competitive advantage: cost effectiveness, cost flexibility, cost of quality, and cost of delivery. Oral & Reisman (1988) also claimed that the FCA of firms had seven indicators including holding market share, sales growth, export rate, profit growth rate, productivity growth rate, new production rate, and innovation rate. It can be seen that the nature of competitive advantage is not directly measured from the financial dimension of the firms, but measured from different directions covering all business activities within firms. Competitive advantage can be passed on to the next generation within organization. And it can be created as a process of an asset that demonstrates the competitive ability that brings business success to the firms.

Klaprabjorn et al., (2019) found that EMA had a direct influence on the FCA and sustainability of the business. This is consistent with the study of Sunthornwipat (2019) that the accurate financial reporting created benefit the economic judgment of entrepreneurs and users of the financial reports. Financial information are essential tool for users to support investment management decisions. The financial data incorporated in a company's report enable stakeholders to assess business performance. In a separate study, this area was applied through the concept of competitive advantage (Leong et al., 1999). A sustainable competitive advantage can be achieved when firms are implementing a cost-effective strategy within production process. For this, environmental information in the reports can be used to



formulate a strategy in order to gain a competitive advantage. The sustainability of competitive advantage relies on the feasibility of the EMA practices. Sustainability continues if firms are striving to bring its environmental management information to maximize benefits (Rumelt, 1984). Thus, resources and management competencies are the main priority to gain a competitive advantage (Galbreath, 2005). As a competitive advantage drives a company to maximize profit, the use of resources within production processes and/or business activities can be an integral way to create competitive strategy (Zott, 2003) and increase sales growth (Ferrari & Parker, 2006) for long-term corporate sustainability. Dillard, Brown, and Marshall (2005) found that the framework could be used in the development of different levels relating to environmental improvement of a firm. This could be a general guidance for direction of firms towards increasing environmental responsibility and impact on the corporate sustainability both immediately and in future.

According to Hart & Milstein (2003), sustainability is the ability of an organization to continue operating which leads to the sustainable development of a firm. This includes the ability of organization to develop techniques of continuous improvement and innovation within the organization (Zwetsloot, 2003). In addition, the environmental accounting practice has been applied continuously with corporate sustainability concepts under environmental and social development (Aras & Crowther, 2007). However, the Department of Environment and Conservation (2019) claimed that one of the sustainable development principles is an evaluation of firms' value and reduction in environmental problems, use of resources, and waste. This approach can be developed towards corporate sustainability based on the social responsibility within the organization. Corporate sustainability has to do with greater efficiency in resource utilization, where sustainability standards should be integrated with management approach. Aras & Crowther (2007) mentioned that a sustainability perspective is an action based on the balanced scorecard that deals with the evaluation of the operational performance to meet corporate sustainability. It consists of four key aspects including strategy, finance, distribution channel, and technology development. This can lead to sustainability when indicators can be managed (Strategic), measured (Financial), fair (Distributional), and efficient (Technological). Therefore, maintaining a competitive advantage is a key factor of firms in building long-term profit growth towards corporate sustainability. Puengjitpraphai (2008) found that the environmental and social disclosures of

listed companies were different. There was no established guideline to enforce the disclosure. The disclosure of information is voluntary on the part of the company as it creates positive information towards a good image for the company.

According to Klaprabjorn et al. (2019), EMA has a direct influence on corporate sustainability. It was further suggested to investigate environmental management accounting affecting corporate sustainability through financial competitive advantage. As such, the current study included the concepts of environmental management accounting UNDSO (2001) and the suggestions from the study of Alshehhi, Nobanee, & Khare (2018) entitled 'The Impact of Sustainability Practices on Corporate Financial Performance: Literature Trends and Future Research Potential.' The concept of this study was also adopted from Jeon and Gleiberman (2017) entitled 'Role of Sustainability and Green Strategies in Channels: Evidence from the Franchise Industry.' The results of these studies were consistent with the Return on Sales (ROS) and the study of Gómez-Bezares, Przychodzen, and Przychodzen (2016) entitled 'Corporate Sustainability and Shareholder Wealth' which were consistent with the Sustainable Growth Rate (SGR). These two studies were blended and two variables were adopted for the current study including Return on Sales (ROS) and Sustainable Growth Rate (SGR).

2.3 Corporate Sustainability (CS)

Corporate sustainability is a balance of firms' activities including social performance, environmental impact, and corporate culture incorporated in financial reporting (Aras & Crowther, 2008). Sustainability disclosure helps a company to create a fair and transparent competition in the form of corporate sustainability. Corporate sustainability needs to be coordinated at all levels including personnel, firm, and society where it can be seen as an excellent firm. The sustainable firms need to promote excellence in personnel within the organization and society at the same time. It also focuses on maintaining direct interests for solving customers' problems (Garvare & Isaksson, 2001). On the other hand, environmental sustainability is divided into two concepts: environmental prevention and environmental control. The sustainable development of firms needs to have both environmental protection and environmental control (Velazquez, Esquer, Munguia, & Moure-Eraso, 2011).



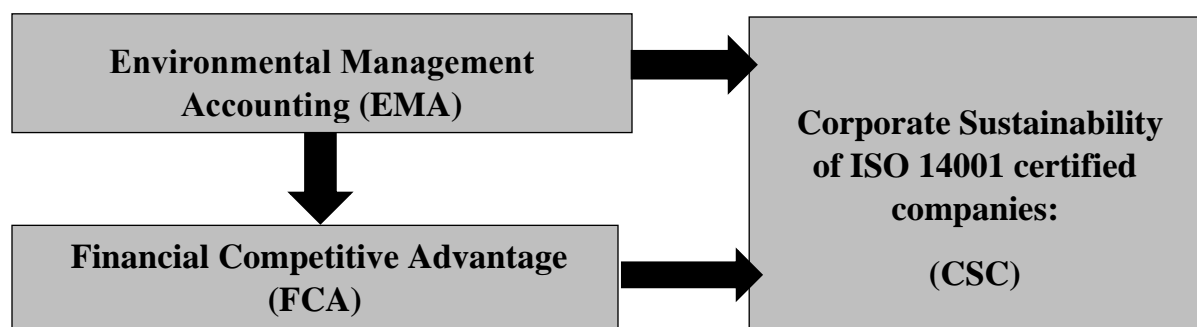
Klaprabjorn et al., (2019) and Burritt & Schaltegger (2010) described corporate sustainability as an stable organization with stable financial position and performance in both the short and long term. One of the factors of corporate sustainability is that investors, government agency, and stakeholders recognize the company as effective in environmental management. Environmental effectiveness that meets standards creates value added to the shareholders on a regular basis. This enables to sustain business growth in order to survive and thrive in the future. As Gómez-Bezares et al., (2016) found, corporate sustainability aimed at building shareholder wealth over the long term implements sustainable development in business strategies and operations.

Firms need to incorporate sustainability information in financial reporting including return on sale (ROS) in order to enable investors and stakeholders to track the operational performance. Therefore, ROS can be considered important to analyze and make business investment decisions. When return on sale drop, this may indicates poor financial management. As a result, firms are striving to develop and create a competitive financial advantage in order to keep ROS in a positive direction. This is to provide higher return on sales to attract investors and stakeholders to invest in the firm. In addition, this keeps the firms survive the economic conditions and operate sustainably.

From the review of the literature on EMA practices, a research conceptual framework was designed underlying the practices of EMA and FCA affecting the CSC of the ISO 14001 certified companies in Thailand, as shown in Figure 1.

Figure1

Conceptual framework



3. Methodology

2.1. Research design

This study utilized quantitative research method to develop a causal model of EMA practice affecting the corporate sustainability. Quantitative data were gathered from the accounting officers and managers of the selected 272 companies in Thailand.

2.2. Sample Size

The sample size of the study include selected 272 listed companies of manufacturing industry sector which received the ISO 14001 certification in Thailand. Random sampling methods were employed to select the total sample from the total population identified from the database of the Thai Industrial Standards Institute (TISI). The accounting managers of the companies were the designated respondents for their qualification and knowledge of the environmental accounting policies. These participants were equipped with knowledge on the application of the company's accounting policy into environmental management accounting practice. They were also able to provide environmental information from the companies' reports to enrich the results of the study.

2.3. Survey instrument

The study used a self-designed set of questionnaire to collect data from the accounting managers. Questions cover the influence of causal factors on the EMA practice including organizational culture, accountant knowledge, management commitment, social impulses, and government support. The questions also included EMA practices for process innovation in relation to firms' financial advantages on sustainability. The data were collected and verified for completeness and accuracy prior to data analysis.

2.4. Data analysis

Inferential statistics were considered appropriate for data analysis through the use of correlation statistics to measure the relationship between two or more variables. The relationship between the independent variables was tested to to answer the hypotheses. The first step was the Correlation matrix followed by the Tolerance to find if the VIF values were consistent and suitable for analysis in the next step.



The multiple linear regression analysis was used to analyze the relationship between three or more variables where one variable is dependent, which can be predicted. The other two variables were independent which were determined by the regression coefficient of each independent variable. Independent variable was related to the dependent variable to predict the desired variable.

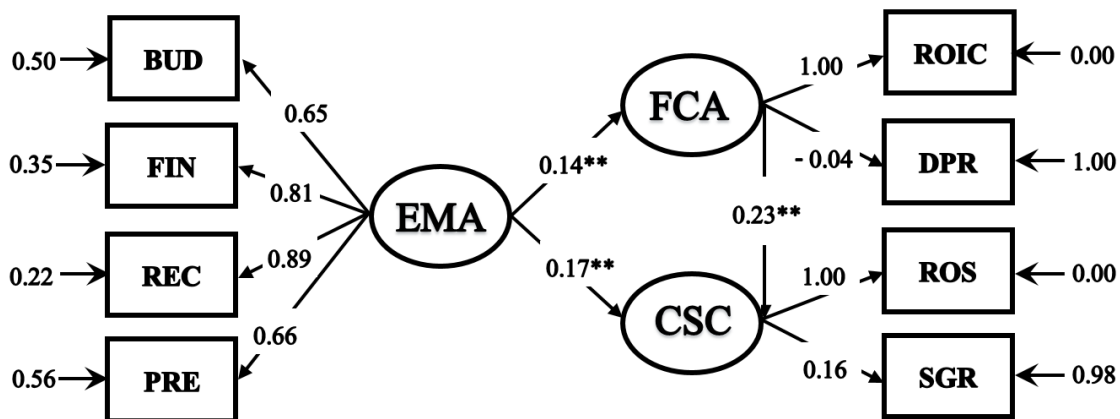
4. Findings and Discussion

4.1. Findings

The data analysis represent the causal model of EMA practices and the FCA affecting the CSC of the ISO 14001 certified companies in Thailand. The results of the path analysis show the influence on the structural equation model. The statistics used in the hypothesis testing were Multiple Regression Analysis with a 95% confidence level. The main hypothesis is rejected only if significant level was less than 0.5. The results of the analysis are shown in figure 2.

Figure 2

Model of variable influence equations



Chi-Square = 14.28, df = 8, p-value = 0.07482, RMSEA = 0.040

Note: p < .05, p** < .01*

Figure 2 shows the data analysis of the structural equation model after adjustments for consistency with the empirical data. The main theoretical model was in harmony with the empirical data. Considering the values of chi-square statistic (χ^2) of 14.28, degrees of freedom (df) of 8, which are significantly different from zero (p-value = 0.07482) and greater

than the standard 05. The relative chi-square value (χ^2 / df) is 1.79 (the standard should not exceed 2). Value (from 0.9 and above), with AGFI value was 0.97 as standard should be from 0.9 or higher (RMSEA value is 0.04 as standard should be less than 0.05).

Table1

The results of route analysis

Dependent variables / Variables	FCA			CSC		
	TE	DE	IE	TE	DE	IE
EMA	0.17** (0.05)	0.14** (0.05)	-	0.17** (0.05)	0.17** (0.05)	0.03** (0.01)
FCA	-	-	-	0.23** (004)	0.23** (004)	-

$\chi^2 = 14.28$, $df = 8$, $\chi^2/2 = 1.79$, $p\text{-value} = 0.07$, $GFI = 0.99$, $AGFI = 0.97$, $NFI = 0.99$, $NNFI = 0.98$, $CFI = 0.99$, $RMSEA = 0.04$, $SRMR = 0.03$, $CN = 675.93$

The results of analysis in the table 1 reveal that the causal variables are statistically significant to influence the internal latent variables at .0 1 . EMA and the corporate sustainability of a company (standard variables) had the path coefficient of 0.17. The result answered the H1 that EMA practices have positive influence on the CSC of the ISO 14001 certified companies in Thailand. In addition, the structural analysis between the cause variables and internal latent variables show that the causal variable influences the internal latent variable in a statistically significant level at the 0.01. The EMA variable and the FCA variable have a path coefficient of 0.14. Thus, the H2, EMA practices positively influence the FCA was answered.

The results also reveal that the internal latent variable influences the internal latent variable. It is statistically significant at the 0.01 level consisting of FCA with the CSC at a path coefficient of 0.23. The results answered the H3, FCA has a positive influence on the CSC of the ISO 14001 certified companies in Thailand. Furthermore, the analysis of the structure between the cause variables and internal latent variables are statistically significant to influence the internal latent variables at the 0.01 level. This consists of the EMA and the



CSC with a path coefficient of 0.17. The FCA variable has a path coefficient of 0.14. The study accepts the H4 that EMA practices have a direct influence on the corporate sustainability through the FCA.

It can be seen that the hypothesized model and modified model are statistically consistent with the empirical data. After adjusting the model according to the preliminary agreement of statistical analysis with the list rail program, this allowed the error variance to be related (Wiratchai, 1999). As a result, the revised model was consistent with the empirical data when analyzing direct influence, indirect influence and combined influence between various latent variables.

4.2. Discussion

EMA practices have a positive influence on the CSC of the ISO 14001 certified companies in Thailand. Participants indicated that application of the EMA practices were able to provide usefully the environmental information to support investment decisions of the stakeholders. This was consistent with the results of Klaprabjorn (2018) and the UNDSO (2001)'s concept on the emphasis of EMA that includes firms focused on environmental budgeting, analyzing, reporting, environmental financial events, collecting, and classifying environmental information to incorporate in the environmental reports. The EMA and its reporting system influence investment decisions of stakeholders (UNDSO, 2001). The results of the study were also consistent with Gray et al. (1992) that EMA was a measure of corporate sustainability along with the environmental responsibility that needs to be done with the environmental ecosystem. The results were also consistent with the study of Hackston and Milne (1996) and the concept of Aras and Crowther (2007) that firms employing EMA practices in their strategic planning were able to operate effectively and potentially in order to achieve corporate sustainability both immediately and in future.

Furthermore, the study found that EMA had a positive influence on FCA. Participants indicated that environmental management accounting was introduced to the accounting practices of companies and their stakeholders. The stakeholders were informed about the return on investment and the good performance of the firms. This positively influenced the attractiveness of the company to the investors, their interest and investment decisions. The results of the study were consistent with the environmental accounting and concepts of

previous studies (Gómez-Bezares et al., 2016; Gray et al., 1992; Henschokchaichana & Srijunpetch, 2011; Klprabjorn, 2018; Phoprachak & Buntornwon, 2020; Ratchachoenkit, 2016) that EMA practices presented firms' performance in the annual reports. The EMA provided environmental information in relation to firms' performance that builds investor confidence in making investment decisions. This was considered as a financial competitive advantage for the firms.

In addition, FCA had a positive influence on the CSC of the ISO 14001 certified companies in Thailand. Participants indicated that FCA was essential for the sample firms to focus on intense competition in business today. The sample firms aimed at creating business strengths to generate high returns. By employing FCA, the firms were able to reduce costs and maintain the quality of the product, as well as increase operational efficiency. Firms were able to grow continuously and sustainably. The results were consistent with the concept of Porter (1980) in achieving competitive advantage and the concepts of Waheeduzzman and Ryans (1996) on the competitiveness as a management concern. The sample firms were focusing on the business's competitive advantage in price, cost, service strategy and society. They developed a better management process for better financial competition, thus reflecting the business efficiency and sustainability. In addition, Leong et al. (1999) proposed the measurement of financial competitive advantage with a strong focus on cost-management effectiveness which was consistent with the study of Oral & Reisman (1988) that a competitive advantage was a focus on sales growth, profit growth rate, and the growth rate of productivity. These were key competitive elements in finance. Klprabjorn et al. (2019) and Sunthornwipat (2019) also found that accounting and financial reporting enabled stakeholders to know the direction of business performance and its operation together with return on investment. This was also consistent with the study of Zott (2003) and Ferrari and Parker (2006) that incremental sales growth kept stakeholders informed of business performance and venture decisions which were leading to continuous growth for the further development of the corporate sustainability.

In this relation, EMA had a positive influence on the CSC of the companies through FCA. Participants indicated that the sample firms focused on EMA and incorporate financial information in the reports to create a competitive advantage through the performance reports.



Stakeholders were aware of the environmental responsibility and the corporate sustainability of companies. This was consistent with the study of Klaprabjorn (2018), Gómez-Bezares et al. (2016), Velazquez et al. (2011), Ratchacharoenkit (2016), Phoprachak and Buntornwon (2020) that EMA created a FCA through the presentation financial statement when disclosing return on investment in financial reports. Business performance was disclosed to support stakeholders' concerns, as well as creating recognition and investment decision. As a result, sample firms were able to operate business continuously and build sustainability both immediately and in future.

5. Conclusion and recommendation

It was evident that EMA practices influence the CSC positively through the FCA. The variables of the study were related when firms focused on EMA affecting stakeholders' concerns on financial information in the financial reports. This creates an FCA through the firms' performance disclosures. Stakeholders are aware of the firms' environmental responsibility which influences the corporate sustainability. The firms need to create financial competitive advantage in the form of a financial statement showing the return on investment. Environmental responsibility should be considered applying the EMA practices in line with the company's corporate social responsibility programs addressing the various needs and concerns of the stakeholders. By applying the EMA, firms report environmental information, business performance, financial statements, as well as return on investment to effectively support stakeholders' investment decision. Furthermore, firms create financial competitive advantages to attract investors from focusing on cost control, generating profits, and having high return on investment. This influences the stakeholders' decision to invest in the business. When firms create better investment value, they are able to operate the business continuously. This can definitely make the firms sustain their operations.

The results of the study are expected to benefit companies certified with ISO 14001 and also the companies listed in the Stock Exchange of Thailand. This study expects that EMA practices be introduced to the Thai companies along with FCA to promote corporate sustainability. The results could also bring awareness to the Thai firms on the best practices for managing the environment, financial competitive advantage, and corporate sustainability

in order to become attractive to the eyes of the stakeholders and investors. As EMA and FCA influence CSC, companies are encouraged to formulate environmental accounting policies and environmental social responsibility programs. The policy can be very useful to the firms because it will allow stakeholders recognize and embrace the company's environmental corporate responsibility. This will also create a good image for the firms allowing an increase in stakeholders' trust and confidence. These will all be instrumental in building corporate public trust while maximizing and increasing wealth through potential investments. The results of the study can be applied as an accounting guideline for improvement in the sustainability reporting systems. EMA practices in line with the sustainability reporting should be studied further in accordance with the guidelines of the companies listed in the Stock Exchange of Thailand.

The major limitations of this study are the data collection and the sample size. The data were limited to only 272 accounting managers of selected companies. Future research can focus on a wider range of sample size and expand the respondents to the directors and not only managers. This will enrich the results of the study. Further research can also employ mixed methods for data collection and analysis instead of being limited to quantitative data. This will create triangulation of the data that will provide the different angles and scope of the topic.

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