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The Cyclic Relationship between Environmental, Social and Governance (ESG) Disclosure and Corporate Financial Performance (CFP) in a Regional Economy

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Abstract

The main purpose of this study is to examine the existence of cycle relationship between ESG disclosure and financial performance of listed companies in Malaysia, Singapore and Thailand. The secondary data of total 140 companies was extracted from Bloomberg database for period 2011 to 2016. The ESG disclosure of corporate is represented by ESG disclosure score, while earnings per share (EPS) is used to measure the corporate financial performance (CFP). Two years lag effect was assumed in this study to test how CFP in period 1 (2011-2012) influences ESG disclosure score in period 2 (2012-2014), and how period 2 ESG disclosure score affects the subsequent CFP, which is defined as CFP in period 3 (2015-2016). The empirical results of this study found significant positive (negative) cyclic relationship for Malaysian (Singaporean) companies, while no significant cyclic relationship is found for companies in Thailand. The findings suggest that only Malaysian companies gain the financial appreciation from making sustainability reporting through reducing information asymmetry to stakeholders.

Keywords: Cyclic relationship; ESG disclosure; Company financial performance

1. Introduction

Environmental, social and governance (ESG) is often erroneously equated with terms like "Corporate Responsibility (synonymous with CSR)" or "Business Sustainability". Tonello and Singer (2015) defined "Business Sustainability" as "the pursuit of a business growth strategy by allocating financial and illiquid (non-financial) resources of the firm to ESG practices." The Bursa Malaysia corporate social responsibility (CSR) framework for public-listed companies (PLCs) was launched on 5 September 2006 to support the Bursa Malaysia Listing Requirements that require reporting of CSR activities and practices by PLCs in their annual report. This has provided the companies an insight that Malaysia government is concerning about the sustainability issue. Securities Commission [SC] Malaysia has laid down in Corporate Governance Blueprint 2011 that disclosure and transparency of information are important elements because they provide decision-making for shareholders, stakeholders and potential investors in relation to capital allocation, corporate transactions and financial performance monitoring. It is in these context that "Corporate Sustainability Reporting" is valuable, which is a "process of communicating to the public about the information of a firm's behaviour or business operations related to the environmental, social performance and corporate governance" (Orr & Kempf, 2015).

Recently, Hayat and Orsagh (2015) advised that ESG issues are significantly evolved and closely related to all investors, while Tarmuji, Maelah and Tarmuji (2016) suggested that the disclosure practice of ESG information has become an increasing trend to provide a guideline for investors. From the investors' perspective, as integrating ESG considerations into analysis of company investment become more prevalent, the ESG disclosure score might become a crucial indicator in providing good investment decision to create better portfolios, reduce unsystematic risk and acquire diversification benefits especially when markets are more volatile.

Although the initiative to disclose ESG information has inclined as a public concern in many countries, ESG is still a relatively new topic in the region (Kweh, Alrazi, Chan, Abdullah & Lee, 2017). Many companies in Malaysia are still overlooking the importance of ESG disclosure, which can be a source to remain competitive (Tarmuji et al., 2016). According to a survey conducted by Corporate Knights in 2016, Stock Exchange of Thailand (SET) has shown a dramatic improvement on Bloomberg's ESG disclosure score since 2012. On the contrary, Singapore is still lacking of demand for ESG information (Teo, 2015).

A decade ago, Juravle and Lewis (2008) postulated that the lack of understanding on how ESG disclosure affects investors could potentially be a major obstacle in encouraging the ESG disclosure into investment decision-making. Absent of study regarding to the cycle relationship between ESG reporting and CFP in Malaysia and other neighbouring countries can cause the problem of lacking awareness and understanding toward ESG disclosure despite its increasing role to investors. Thus far, the empirical studies mostly covered the companies in countries such as Japan (Cai, Le, Oktavius, Nguyen & Roxas, 2014) as well as regions such as Europe (Rodriguez-Fernandez, 2016), and North America (see, for example, Surroca, Tribó & Waddock, 2010; Makni, Francoeur & Bellavance, 2009).

This study differs from previous studies as it aims to examine whether there is a cycle relationship exists between ESG disclosure and CFP in Malaysia, Singapore and Thailand. Moreover, EPS is considered as useful profitability indicators to forecast the value of a company (de Wet, 2013). However, it is not used in any of the prior studies. Hence, this study tends to close out the research gap left put by prior studies, leading to increasing knowledge and awareness of public toward the issue and further improving the ESG disclosure adoption level in the regional economy.

The study is organised as follows. Section 2 provides some findings related to ESG disclosure and CFP, followed by hypotheses formulation. Section 3 describes the data and methodology. Section 4 contains summary of the results and discussion, and Section 5 concludes.

2. Literature Review

Today, ESG reporting could act as a new communication channel between the company and stakeholders. Cuadrado-Ballesteros, Martínez-Ferrero and García Sánchez (2017) suggested the information asymmetry between company and stakeholders could be reduced through sustainability information reporting. As a result, companies with high disclosure action will be able to maintain a high level of shareholders' confidence and attract more potential investors. Whereas, losing of market integrity at a huge cost could happen to companies with low sustainability disclosure.

Some recent studies have used disclosure as an independent variable while CFP measured by return on asset (ROA) as a dependent variable. Based on a sample of 667 companies from 15 European countries over 2006 until 2010, Lapinskienė and Tvaronavičienė (2012) reported that the willingness of company to report ESG related information is significantly affected by ROA. Dhaliwal, Li, Tsang and Yang (2014) also reported that ROA has significant and positive impact on the CSR and corporate governance reporting level. These findings suggest that a profitable company would be more willing to disclose social responsibility and corporate governance information.[1] In France, Damak-Ayadi (2009) aimed to examine the drivers of social and environmental reporting level however found their insignificant correlation with earnings per share (EPS). Similarly, Umoren, Udo and George (2015) also found that ESG reporting has insignificant effect on the ROE.

Interestingly, some other recent studies have used disclosure as a dependent variable while CFP measured by ROA as an independent variable. These studies include Li, Gong, Zhang and Koh (2018), Giannarakis, Konteos, Zafeiriou and Partalidou (2016), Nor, Bahari, Adnan, Kamal and Ali (2016), Platonova, Asutay, Dixon and Mohammad (2016), Sharma and Thukral (2016), Zaman, Arslan and Siddiqui (2015), Dewi (2015). The findings of Li et al. (2018), Giannarakis et al. (2016), Platonova et al. (2016) and Zaman et al. (2015) indicated that ESG disclosure score is significantly positively affected by ROA. Nevertheless, in the study of Sharma and Thukral (2016), the relationship of ESG disclosure score with ROA has been found to be insignificant. Similar insignificant relationship was also found by Nor et al. (2016) and Dewi (2015). Their findings suggest that high accounting-based return does not lead to high disclosure level.

Other related studies have used the return on equity (ROE) to measure the CFP. These studies include Lawal, May and Stahl (2017), Zaman et al. (2015), Abeysinghe and Basnayake (2015), Giannarakis (2013), Umoren et al. (2015). The findings of Lawal et al. (2017) and Giannarakis (2013) showed that social and environmental disclosure has a significant and positive effect on ROE. Similarly, Zaman et al. (2015) reported that there was positively significant relationship between corporate governance disclosure level and ROE of 30 banks in Pakistan. However, Abeysinghe and Basnayake (2015) found that CSR disclosure would have a significantly negative impact on the ROE value for domestic commercial banks in Sri Lanka. On the other hand, Umoren et al. (2015) found that ESG reporting has insignificant effect on the ROE. In Malaysia, Nor et al. (2016) reported an insignificant effect of environmental disclosure has on ROE.

There are limited studies that explores the impact of sustainability disclosure on CFP measured by earnings per share (EPS). These findings however suggested an insignificant

[1] See also Rouf (2011), Albers and Günther (2011) for positive and significant effect of ROA on governance disclosure.

relationship between the variables. In other words, EPS would not be affected by ESG disclosure. For example, in France, Damak-Ayadi (2009) examined the drivers of social and environmental reporting level however found their insignificant correlation with EPS.

In terms of market-based return, Tobin's Q is commonly used to measure the CFP in disclosure literature. Findings from Li et al. (2017) and Cahan, de Villiers, Jeter, Naiker and van Staden (2016) revealed that disclosure practice has significant and positive effect on Tobin's Q. However, Sharma and Thukral (2016) found a contradicting result which ESG disclosure score has significantly negative relationship with Tobin's Q. Their findings suggest that high disclosure level in fact lead to a low market-based return.

Cycle is the sequences of events that are regularly repeat themselves in the same order. In economics and business theory, there are phenomena to be described by virtuous cycle and vicious cycle. They are defined as a loop of actions or a chain of events that involves with self-reinforcing practices (virtuous) or self-defeating practices (vicious) through a feedback loop. A virtuous cycle has favorable results whereby results allow the loop to be repeated with ever increasing results or gaining strength from their outputs (Spacey, 2016a). On the other hand, a vicious cycle has detrimental results due to its iteration of producing negative results leading to ever worsening outcome (Spacey, 2016b).

Cycle relationship indicates that both the variables would influence each other in different directions. There are rare studies that explores the cycle relationship in disclosure literature. To our knowledge, only one study related to ESG disclosure and others were mainly focusing on cycle relationship between CSR and CFP. The only study was conducted by Mcphail (2014) on 896 companies over period of 2008 to 2012 from five markets, which are U.S., U.K., Japan, Germany and France. In the study, he reported a positive cycle relationship formed between ESG disclosure with ROA and ROE, while a negative cycle relationship actually formed between disclosure level and Tobin's Q. His findings suggest the impact of disclosure is well versed in accounting-based return but not for the market-based return, implying the investors are not taking the disclosure effort into their investment consideration for firm's fair value.

In other studies of relationship between CSR and CFP, Vauhkonen (2017) assessed the cycle relationship in European companies and found the relationship to be significantly negative. His findings suggest a company with good financial performance would invest less in CSR, and if they do well in CSR, they will end up to a poor financial performance. Further studies reveal an insignificant result in both direction of relationship between CSR and CFP. For example, Wissink (2012) found an insignificant relationship between CSR and ROE in both directions, while earlier study conducted by Makni et al. (2009) also found no cycle relationship formed in CSR with ROA and ROE.

The concept of cyclic relationship between CSR and CFP was first introduced by Waddock and Graves (1997). Their rationale is a better CFP potentially results in the availability of financial slack, which could provide the opportunity for firms to invest in socially responsible activities, based on slack resource theory. In their study, they suggested a positive synergistic relation between CSR and CFP and the causation may run in bidirectional. Similarly, profitable companies would increase their ESG disclosure and the disclosure score can be used as an additional source of information for investors in order to assess the level of social responsibility, which in turn, affects positively the CFP.

Next, agency theory explains the principal and agent relationship by using the metaphor of "contract", for example, shareholders and management (Shavell, 1979). From the perspective of investors, disclosure offers overview or summarised information about the potential risks and opportunities of the firm in the future. A better-informed investor with adequate public disclosure information from firms, theoretically will have lower information risk and greater certainty (de Klerk & de Villiers, 2012; Healy & Palepu, 2001). Overall, agency theory expects a positive association between ESG disclosures to CFP when the ESG information is relevant to investors (Rezaee, 2017). As pointed out by Wissink (2012), management that voluntarily disclose can mitigate the perceived information asymmetry, which in turn sustain the relationship with investors and hence increase firm's overall competitiveness.

In addition, the efficient-market hypothesis (EMH) by Fama (1970) describes the markets are efficient because they are composed of numerous rational investors who respond rapidly and objectively to new information. It specifically states that, securities are fairly priced, fully reflect all information available about the firms and react swiftly to new information, at any point of time (Gitman & Zutter, 2015). In other words, any result of new ESG actions or practices that have been taken by a publicly traded company could be reflected on securities prices in a very short time when EMH holds. Hence, in this study, the time length is appropriate as each period is based on two years' information. Period 1 indicates CFP in 2011-2012; Period 2 indicates ESG disclosure score in 2013-2014; Period 3 indicates CFP in 2015-2016.

In summary, firms with extra available resources believe in "doing good by doing well," and that those resource allocations may bring about improvement of CSP in overall. Better CFP could be a predictor of improved ESG performance and disclosure (Ortas, Álvarez & Garayar, 2014). Profitable firms turn out to be more willing to disclose ESG information due to the revealing of additional financial information helps investors to reduce uncertainty, thereby better forecast future cash flows (Gelb & Zarowin, 2002). According to slack resource theory, the first hypothesis has been developed as:

H_1: Company financial performance in period 1 has significant impact on ESG disclosure in period 2.

Baumfield (2016) proposes that managing a successful relationship with stakeholders should be deemed as an essential part for a successful firm, under stakeholder theory. With the improved availability of ESG information disclosure, the relationships between company and key stakeholders can be strengthened while building better mutual understanding between investors and management, reducing monitoring cost and uncertainty (Zuraida, Houqe & van Zijl, 2015), consequently contributes to market returns and profitability. Overall, companies with effective reporting strategies are more likely to attract important stakeholders to invest and pay a premium for the securities, based on stakeholder theory (Richardson & Welker, 2001). Hence, the second hypothesis is developed based on stakeholder theory as:

H_2: ESG disclosure in period 2 has significant impact on company financial performance in period 3.

3. Methodology

The FTSE4Good ASEAN 5 Index is an ESG index launched in April 2016 by FTSE Russell in collaboration with the Association of Southeast Asian Nations (ASEAN) Exchanges. The index identifies companies with recognised corporate responsibility practices listed on the ASEAN Exchanges, namely Bursa Malaysia (MYX), Indonesia Stock Exchange (IDX), The

Philippine Exchange (PSE), Singapore Exchange (SGX), and The Stock Exchange of Thailand (SET). Table 1 below shown the summary of ESG adoption condition for ASEAN Exchanges. Of all the five exchanges, IDX and PSE are considered a widespread lack of reporting on environmental and social issues with absent of listing rule, written guidance and related disclosure training in general.

Table 1: Summary of ESG adoption condition in Malaysia, Thailand, Singapore, Indonesia and Philippine

	MYX	SET	SGX	IDX	PSE
ESG reporting as a listing rule	Yes	Yes	Yes	No	No
Written guidance on ESG reporting	Yes	Yes	Yes	No	No
ESG related training	Yes	Yes	Yes	No	No
Sustainability-related indices or lists	Yes	Yes	Yes	Yes	No
ESG Equity Mutual Fund in the country	Yes	Yes	N/A	Yes	Yes

*Note: N/A indicating lack of information

The population of this study comprises of the companies listed in MYX, SET and SGX. Indonesia and Philippines have been excluded due to limited data available. The sample size is limited to top 100 PLCs based on their market capitalisation as of August, 2017. The selection of top 100 listed companies is rationale on the ground of large companies are more aggressively involved in ESG-related activities and practices that would have larger impact on society due to their visibility (Ong, Teh, & Ang, 2014; Buniamin, 2010; Aerts, Cormier & Gordon, 2006; Hackston & Milne, 1996). The final sample of the study as shown in the Table 2 is narrowed down to a total of 140 PLCs, which comprised of 52 Malaysian PLCs, 38 Thai listed companies and 50 Singaporean firms listed on SGX.

Table 2: Summary of sample size

	MYX	SET	SGX	Total
Original Sample Size	100	100	100	300
(-) Firms with data less than six years	10	18	10	38
(-) Missing ESG disclosure score	31	41	28	100
(-) Incomplete data on company financial performance	7	3	12	22
Final Sample Size	**52**	**38**	**50**	**140**

The time horizon design for this study is cross-sectional with time-series data obtained from Bloomberg because the time frame is designed with three different time periods and each with two years lagged, from year 2011 to year 2016. The efficient-market hypothesis (EMH) describes the markets are efficient because they are composed of numerous rational investors who respond rapidly and objectively to information, at any point of time (Fama, 1970). In other words, any result of new ESG actions or practices that have been taken by a publicly traded company could be reflected on securities prices in a short time when EMH holds. Hence, in this study, the time length is appropriate as each period is based on two years information. As shown in Figure 1, the ESG disclosure score is measured as the average (mean value) of 2013-2014 (period 2), whereas EPS was measured as the average of 2011-2012 (period 1) and 2015-2016 (period 3).

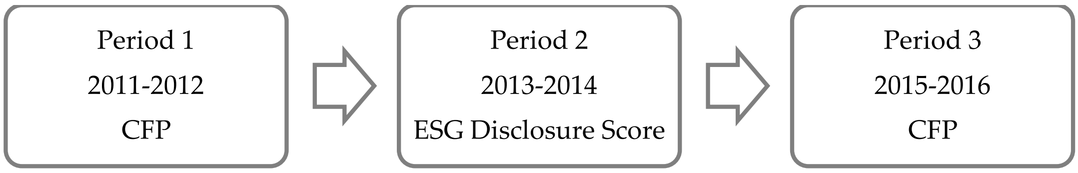

Figure 1: Time periods for the variables studied

The data in this study are twofold: (1) data related to firm's ESG disclosure score, and (2) data related to the CFP: Return on Assets (ROA), Return on Equity (ROE), Earnings per Share (EPS), and Tobin's Q. ROA, ROE, EPS, and Tobin's Q are considered as the most useful and commonly used financial performance measurement. ESG disclosure level is determined by Bloomberg's ESG disclosure score, in point. The score ranges from 0.1 to 100 for those that disclose every data, based on publicly available data gathered through a company's annual report, sustainability stand-alone report, and official website which are based on the voluntary disclosure (Zuraida et al, 2015).

ROA is an indicator of profitability level of a firm relative to its total assets and to show the efficiency of its management in using its assets to generate earnings, in percentage (%). Usually, a better ROA indicates that there is a management team with high productivity and effectiveness in utilising its resources to maintain and improve profitability. As a result, investors would be attracted and demand more stock, thus improving the company's share price and profitability. Its measurements are formulated as: ROA = Net Income / Total Assets.

In addition, ROE measures the profitability of a company by revealing how much a firm is earning with shareholder's capital invested, in percentage (%). It is used as a guideline to determine a management's effectiveness. A company with better ROE is a company that capable of generating cash internally. Generally, better ROE indicates that the company would contribute positively to its long term market value due to its attractiveness in stock market and high-in-demand stocks among investors. ROE is formulated as: ROE = Net Income / Shareholder's equity.

EPS is the portion of a firm's profit allocated to each shareholder, in currency. EPS is also a measurement that shows the profitability of a company on shareholder basis. According to de Wet (2013), EPS is still one of the most popular accounting-based financial performance measurements. Generally, high EPS indicates a company has extra money to either reinvest or distribute as dividend, indicating the company's stock would be a worthwhile investment. EPS is formulated as: EPS = Net Income / Outstanding Common Shares.

In addition, Tobin's Q is one of the popular market-based measurements to estimate the firm's market value against its book value. Tobin's Q ratio is a ratio of measuring the market value of a firm against the replacement cost of the firm's assets (Tobin & Brainard, 1968). Tobin's Q ratio could help stock investors to determine the fair value when making investment decision. A high Tobin's Q ratio indicates a rising interest and demand of investors. The measurement of Tobin's Q is formulated as: Tobin's Q = Total Market Value of Firm / Total Assets Value of Firm.

Sustainability Index and list of Malaysia, Thailand, and Singapore have been employed as control variable for the study. F4GBM Index, which is an index in Malaysia emphasising on ESG issues will be adopted. On the other hand, due to the absent of sustainability index in Thailand, Thailand Sustainability Investment, a sustainability list that is officially implemented by Thailand government will be used. Additionally, SGX Sustainability Index will also be included as control variable for Singapore model. In this study, sample firms will be categorised into two groups, which firms included in sustainability index and list are coded as 1, whereas firms excluded are coded as 0 in data analysis.

Furthermore, bulk of prior studies also found that industry is one of the most used control variables in the relationship between CFP and sustainability (see, for example, Yu-Shu, Chyi-Lin & Altan-Uya, 2015; Boaventura, da Silva & Bandeira-de-Mello, 2012; Godfrey & Hatch., 2007; Mahoney & Roberts, 2007; Brammer & Millington, 2006). Thus, the different types of industry for sample firms has been used as control variable based on the Bloomberg industry classification standard. To control the industry effect, all the sample firms were classified into 10 categories with values: 0: Consumer Discretionary; 1: Consumer Staples; 2: Energy; 3: Financials; 4: Health Care; 5: Industrials; 6: Materials; 7: Real Estate; 8: Telecommunication services; 9: Utilities.

4. Findings

Hypothesis 1 states that CFP in period 1 has significant impact on ESG disclosure score in period 2. In this case, ROE1, ROA1, EPS1, and TOBIN1 are used as the independent variables (IVs) to measure the CFP. ESG disclosure score is used as the dependent variable (DV). There are two control variables (CVs) included in the analysis, which are industry and sustainability index and list. As such, Model 1 is formed according to the variables described as:

Model 1: $ESG = \beta_0 + \beta_1 ROE1 + \beta_2 ROA1 + \beta_3 EPS1 + \beta_4 TOBIN1 + \beta_5 Industry + \beta_6 SusList$

Table 3: Summary results of multiple regression model 1

	Malaysia			Singapore			Thailand		
Model 1:	B	Std. Error	P-value	B	Std. Error	P-value	B	Std. Error	P-value
(Constant)	5.956	3.484	0.094	20.511	5.399	0.00	27.792	5.359	0.00
ROE1	-0.011	0.128	0.930	0.027	0.014	0.062	-0.593	0.301	0.058
ROA1	-0.599	0.313	0.062	-0.557	0.538	0.306	1.39	0.849	0.112
EPS1	8.497	3.295	**0.013****	-2.756	1.343	**0.046****	0.859	0.295	**0.007****
TOBIN1	4.646	1.899	**0.018****	0.636	2.721	0.816	-0.94	1.862	0.617
IND	1.079	0.509	0.039	0.297	0.695	0.671	-1.696	0.871	0.061
Sus List	8.122	2.561	0.003	6.656	4.47	0.144	18.576	4.654	0.00
F Test	**0.00****			0.117			**0.001****		
R^2	0.494			0.203			0.48		
Adjusted R^2	0.426			0.092			0.38		

** significant at the 1% level

The summary of multiple linear regression Model 1's findings is shown in Table 3 above. In Malaysia, ESG disclosure score is significantly affected by EPS1 (B=8.497, p=0.013) and TOBIN1 (B=4.646, p=0.018) in positive way. The result suggests a favorable outcome since the launch of CSR Framework in September 2006, an effort of Government to provide Malaysian companies an insight that Government is highly concerned about the companies which demonstrate high accountability, transparency and sustainability. In addition, EPS1 also shown a significant relationship with ESG disclosure score in Singapore (B=-2.756, p=0.046) and Thailand (B=0.859, p=0.007). While Thailand companies experienced positive impact of EPS on their ESG disclosure score, the disclosure level of ESG by Singaporean companies however is inversely related to their EPS. According to a survey conducted by Corporate Knights in 2016, Thailand has shown a dramatic improvement on Bloomberg ESG disclosure score resulting from the effort of Thailand government in implementing sustainability-related policy pushing Thailand listed companies to adopt a high level of ESG disclosure practice. In contrast, the demand of ESG reporting by Singaporean companies is relatively lower due to less support from Government to promote responsible investment tools in Singapore.

The finding of significant relationship between EPS and ESG disclosure from this study is different from study of Damak-Ayadi (2009), which reported an insignificant relationship between EPS and social and environmental reporting level in France. The findings of this study thus far is consistent with the slack resources theory. With the stronger support from Government, the firms with good financial performance and hence slack resources are more willing to allocate their resources in sustainability practise and disclose more ESG and sustainability information to public. On the other hand, less Government support may lead a financially well company's manager to focus on pursuing short-term earning target and reluctant to invest resources in sustainability reporting, held by the managerial opportunism hypothesis.

Following that, Hypothesis 2 states that ESG disclosure score in period 2 has significant impact on CFP in period 3. Industry and sustainability index and list are included in the regression model as CVs. There are 4 regression models formed to investigate the relationship between ESG disclosure as DV and ROA2, ROE2, EPS2, and TOBIN2 as IVs. The 4 models formed are shown as follow:

Model 2: $ROE2 = \beta_0 + \beta_1 ESG + \beta_2 Industry + \beta_3 SusList$

Model 3: $ROA2 = \beta_0 + \beta_1 ESG + \beta_2 Industry + \beta_3 SusList$

Model 4: $EPS2 = \beta_0 + \beta_1 ESG + \beta_2 Industry + \beta_3 SusList$

Model 5: $TOBIN2 = \beta_0 + \beta_1 ESG + \beta_2 Industry + \beta_3 SusList$

The results of Model 2, 3, 4 and 5 are shown in the following Table 4, 5, 6 and 7, respectively.

Table 4: Summary from result of multiple regression model 2

	Malaysia			**Singapore**			**Thailand**		
DV	B	Std. Error	P-value	B	Std. Error	P-value	B	Std. Error	P-value
ROE2									
(Constant)	38.3	8.781	0.00	12.744	4.706	0.009	25.632	4.887	0.00
ESG	-00.336	0.598	0.577	0.067	0.392	0.864	-0.422	0.085	**0.00****
IND	-3.884	1.322	0.005	2.17	1.02	0.039	-0.292	0.912	0.750
Sus List	-4.248	6.302	0.504	-12.038	4.088	0.005	10.139	3.488	0.006
F Test	**0.013****			**0.018****			**0.00****		
R^2	0.199			0.196			0.502		
Adjusted R^2	0.149			0.143			0.458		

** significant at the 1% level

The results in Table 4 above show that ESG disclosure score has no significant impact on ROE2, both in Malaysia (B=-0.336, p=0.577) and Singapore (B=0.067, p=0.864). Whereas in Thailand, the result indicates that ESG disclosure score is significantly negative related to ROE2 (B=-0.422, p=0.00).

Table 5: Summary from result of multiple regression model 3

	Malaysia			Singapore			Thailand		
DV	B	Std. Error	P-value	B	Std. Error	P-value	B	Std. Error	P-value
ROA2									
(Constant)	6.872	2.348	0.005	5.041	1.873	0.01	5.518	1.781	0.004
ESG	0.047	0.12	0.695	-0.027	0.058	0.637	-0.118	0.026	**0.00****
IND	-0.471	0.342	0.175	0.342	0.265	0.204	0.312	0.297	0.300
Sus List	0.935	1.977	0.638	-1.01	1.856	0.589	5.598	1.086	0.00
F Test	0.526			0.615			**0.00****		
R^2	0.045			0.038			0.692		
Adjusted R^2	-0.015			-0.025			0.458		

** significant at the 1% level

Similarly, Table 5 shows that Malaysia (B=0.047, p=0.695) and Singapore (B=-0.027, p=0.637) has an insignificant relationship between ESG disclosure score and ROA2. In Thailand, however, ESG disclosure score (B=-0.118, p=0.00) has significant negative impact on ROA2.

Thus far, there is insufficient evidence to support ESG disclosure has significant effect on ROE2 and ROA2 in Malaysia and Singapore. These findings suggest that greater ESG reporting does not increase the performance of Malaysian and Singaporean companies in terms of their ROE2 and ROA2. These findings are consistent with those of Charlo, Moya, and Muñoz (2015), Dewi (2015), Nor et al. (2016), and Sharma and Thukral (2016).

On the contrary, higher ESG disclosure level has a significant negative impact on ROE2 and ROA2 for Thai companies. The results suggest the effort of Thai companies disclosing ESG information to public does not provide any direct benefits but only added cost to their operation.

Table 6: Summary from result of multiple regression model 4

	Malaysia			Singapore			Thailand		
DV	B	Std. Error	P-value	B	Std. Error	P-value	B	Std. Error	P-value
EPS2									
(Constant)	0.442	0.138	0.002	0.781	0.358	0.034	2.172	2.802	0.444
ESG	0.013	0.006	**0.029****	-0.025	0.011	**0.029****	0.015	0.102	0.885
IND	-0.052	0.022	0.022	0.043	0.051	0.400	-0.008	0.367	0.982
Sus List	-0.101	0.13	0.440	0.294	0.354	0.412	4.195	2.342	0.070
F Test	**0.026****			0.123			0.158		
R^2	0.174			0.117			0.14		
Adjusted R^2	0.123			0.059			0.064		

** significant at the 1% level

Further analysis in Table 6 reveals that ESG disclosure score of Malaysia (B=0.013, p=0.029) and Singapore (B=-0.025, p=0.029) has significant impact on EPS2. While ESG disclosure in Malaysia is positively related to EPS2, the ESG disclosure in Singapore is negatively related to EPS2. On the other hand, Thailand's ESG disclosure score has insignificant relationship with EPS2 (B=0.015, p=0.885), supported by Charlo et al. (2015).

The significant positive effect of ESG disclosure score toward EPS2 for Malaysian companies is supported by stakeholder theory and agency theory. The theories suggest that a company with good ESG disclosure level can strengthen its relationship with stakeholders by reducing information asymmetry. High ESG disclosure level can enhance company transparency thus gaining support from stakeholders in various ways and lead to better CFP (Siregar & Bachtiar, 2010).

In 2015, Bursa Malaysia (i.e. Stock Exchange of Malaysia) launched a Sustainability Framework comprising the issuance of a Sustainability Reporting Guide and Toolkit to provide guidance on embedding sustainability activities in Malaysian companies and disclosing their Sustainability Statement in annual report. In contrast, Singaporean companies are allowed to disclose their sustainability information on voluntarily basis. Sharma and Thukral (2016) commented that voluntary sustainability reporting could bring competitive disadvantage because cost incurred may outweigh the profit and benefit earned. As such, a good ESG disclosure may not lead to a good CFP as found in this study.

Table 7: Summary from result of multiple regression model 5

	Malaysia			**Singapore**			**Thailand**		
DV	B	Std. Error	P-value	B	Std. Error	P-value	B	Std. Error	P-value
TOBIN2									
(Constant)	2.15	0.478	0.00	1.449	0.362	0.000	2.003	0.361	0.000
ESG	0.008	0.025	0.742	0.00	0.011	0.986	-0.018	0.009	0.060
IND	-0.174	0.069	0.014	-0.027	0.051	0.597	0.002	0.049	0.972
Sus List	0.632	0.393	0.115	0.091	0.358	0.801	0.377	0.309	0.231
F Test	**0.024****			0.962			0.268		
R^2	0.177			0.06			0.108		
Adjusted R^2	0.126			-0.059			0.029		

** significant at the 1% level

The results in Table 7 show that ESG disclosure score has no significant relationship with TOBIN2 in Malaysia (B=0.008, p=0.742), Singapore (B=0.00, p=0.986) and Thailand (B=-0.018, p=0.060). The insignificant results may due to the characteristic of Tobin's Q ration, which is a market-based financial indicator. Mislinski (2017) stated Tobin's Q is more appropriate in evaluating long-term CFP but not a useful measurement in estimating short-term. Hence, it may be less reliable in determining CFP in the ESG context for this study. The study time frame which is 2 years for each period is still considered short to justify the long term effect of ESG disclosure on CFP.

The empirical results summarised for Table 3 to Table 7 show that all five models examined are useful to examine cyclic relationship between ESG and CFP for sample PLCs where the significance F is smaller than 0.01 which indicates the results are highly reliable. The R-square and adjusted R-square of these models also suggesting the variation in the dependent variables can be well explained by the independent variables of respective model.

5. Conclusions

The main purpose of this study is to examine the existence of cyclic relationship between ESG disclosure and CFP. The findings indicate a positive cyclic relationship formed between ESG disclosure score and EPS for Malaysian companies. Similarly, there is a cycle relationship between ESG disclosure score and EPS for Singaporean companies, but they influence each other negatively in both direction. On the contrary, there is no any cyclic relationship formed between ESG disclosure and CFP for Thai companies. The findings are well supported by slack resource theory where firms performed well would be more willing to allocate their resources in sustainability reporting, resulting an improved ESG disclosure level. In addition, the findings are also supported by the stakeholder theory that increase willingness in ESG reporting can strengthen the relationship with stakeholders and reduce the information asymmetry, which in turn improve the CFP. The findings reveal a positive cyclic relationship exists particularly when the CSR framework is well supported by the Government in the case of Malaysia. It provides an insight to companies and their stakeholders to promote the value of sustainability reporting and financial implications of such reporting are worth to focus when making investment decision. Without the strong support of Government in the case of Singapore, companies with good financial performance would not invest heavily in disclosing sustainability information, and even a good sustainability disclosure could not help the company to reap much financial benefits and improve further their CFP. In the case of Thailand, the findings do not show any cycle relationship between ESG disclosure and CFP as the consistent linkage of significant relationship does not exists across three periods. Limited sample size could be the reason of this outcome as most of the sample companies in Thailand are excluded due to missing and incomplete data despite the great effort from Government.

In a nutshell, the findings of this study could change management's perception that disclosing ESG and sustainability information would incur more cost than gaining benefits. Corporate management could understand the financial implications of making sustainability reporting to the public and should increase their willingness in investing their financial resources to actively engage in ESG reporting, which in turn further improving their CFP. Furthermore, many countries still hesitate to take action in ESG disclosure practice, such as Indonesia and Philippines. By referring to the positive cycle found in Malaysia, regulators can gain insights on the advantages of adopting ESG reporting practises and they should implement more regulations related to ESG, educate people via giving detailed guideline, and motivate firms to disclose sustainability information by providing reward such as tax incentive. Consequently, regulators could enjoy the benefits of greater transparency generated from improving company's ESG reporting level, which in turn reducing risks of corruption and strengthening monitoring mechanisms.

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