

IMPACTS OF ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG) PERFORMANCE ON FIRM VALUE, PROFITABILITY AND CASH FLOWS: EVIDENCE IN SOUTHEAST ASIA

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Abstract: *This study aimed to investigate the impact of ESG performance on the firm value, profitability, and cash flows of listed firms in Southeast Asia for the period 2014-2022. Panel data estimation, using the fixed-effects model with robust standard errors, was adopted to explore the relationships among the variables involved. The results indicate that ESG performance has a significant negative impact on firm value, profitability, and, especially, financing cash flows in Southeast Asian firms. Our findings provide practical insights for policymakers, managers, and other stakeholders in emerging markets to develop more realistic approaches to ESG integration. While ESG initiatives have gained worldwide recognition, firms should not solely rely on ESG performance to enhance their overall performance. Proper resource allocation and strategic implementation of ESG efforts are necessary for positive outcomes.*

• Keywords: ESG, disclosure, tobin's Q, cash flows, emerging economies.

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Tóm tắt: Nghiên cứu này điều tra tác động của hiệu suất ESG đến giá trị công ty, khả năng sinh lời và dòng tiền của các công ty niêm yết ở Đông Nam Á giai đoạn 2014-2022. Hồi quy trên dữ liệu bảng, mô hình tác động cố định với sai số chuẩn mạnh được sử dụng khi điều tra mối liên hệ giữa các biến liên quan. Các kết quả chỉ ra rằng hiệu suất ESG có tác động tiêu cực đáng kể đến giá trị công ty, khả năng sinh lời và dòng tiền tài trợ của các công ty Đông Nam Á. Phát hiện của chúng tôi cung cấp những hiểu biết thực tiễn cho các nhà hoạch định chính sách, nhà quản lý và các bên liên quan khác ở các thị trường mới nổi để phát triển các phương pháp tiếp cận thực tế hơn cho các sáng kiến ESG. Mặc dù các sáng kiến ESG đã được công nhận trên toàn thế giới nhưng các công ty không nên chỉ dựa vào hiệu suất ESG để nâng cao hiệu suất hoạt động của mình. Việc phân bổ nguồn lực hợp lý và thực thi một cách có chiến lược cho các nỗ lực ESG là cần thiết để đạt được kết quả tích cực.

• Từ khóa: ESG, công bố thông tin, tobin's Q, dòng tiền, các nền kinh tế mới nổi.

1. Introduction

With the growing public awareness of Environmental, Social, and Governance (ESG) issues, numerous studies have examined the relationship between ESG performance and firm performance in various contexts, primarily focusing on developed economies. Meanwhile, enterprises in the developing world face numerous challenges when investing in sustainability initiatives. One of the difficulties is accessing green capital, as investing in facilities to address sustainable development issues involves high costs and a long payback period. Adding to this challenge is the lack of clear criteria for accessing these capital flows, making it even more difficult for firms to secure the necessary funding (Ameli et al., 2021; Barua, 2020). This highlights the need for research that explores the potential financial benefits of ESG performance for firms to access green capital and implement sustainable development initiatives in a developing country context.

In this paper, we attempt to provide empirical evidence on the relationships between ESG and corporate financial performance in Southeast Asia. We use a large dataset of 630 listed firms with up-to-date ESG scores from Refinitiv Eikon for

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six countries, including Malaysia, Indonesia, the Philippines, Singapore, Thailand, and Vietnam. To the best of our knowledge, this is the first study to explore the nexus between ESG performance, firm value, profitability, and cash flows in separate models within the Southeast Asian research scope. The effects of ESG performance are examined in-depth when we set different models for ESG combined scores, environmental scores, social responsibility scores, and corporate governance scores separately. We argue that studying the impact of ESG performance on firm value, profitability, and cash flows jointly provides extensive conclusions about ESG activities and their influence in Southeast Asia over an extended period. It is also the first study to find a statistically significant relationship between financing cash flows and ESG performance, which is particularly essential for corporate managers in their strategic planning. The findings highlight the need for internal managers to carefully consider the allocation of resources towards ESG initiatives, while policymakers should develop balancing programs that support sustainability goals without jeopardizing firms' financial performance in the Southeast Asian context.

The remainder of this paper is structured as follows: Section 2 reviews the literature and develops research hypotheses. Section 3 describes the data and methodology. Section 4 reports the results and discussions. In closing, Section 5 draws the main conclusions, discusses the implications of the study, and suggests future research possibilities.

2. Literature review

Stakeholder theory

The stakeholder theory was a theory of organizational management and business ethics first introduced by Freeman (1984). The theory has provided a different perspective on creating corporate value by explaining how companies integrate their goal of maximizing value with the interests of various stakeholders to create a competitive advantage (Tsang et al., 2022). Companies were successful because they not only focused on maximizing shareholder value, but also cared about the interests of other stakeholders of the company, and thus they are more sustainable (Aydoğmuş et al., 2022). In addition, disclosing information about sustainability was a way of conveying the results of an organization's operations for the benefit of various stakeholders

(Khan, 2022). As a new model for a company's vision for sustainable development strategies, ESG indicators could gauge a company's performance for stakeholders while financial indicators might estimate a company's performance for shareholders. Hence, for their own benefit, stakeholders would use these indicators to assess the organization's responsibility towards them (Kay et al., 2020). Stakeholder theory has been applied to explain the relationship between ESG and a company's operational effectiveness in many previous studies (Aydoğmuş et al., 2022; Flammer & Kacperczyk, 2019).

ESG performance and corporate financial performance (CFP)

The relationship between corporate sustainability and corporate finance success began to be studied around the 1970s, and in general, while the majority of findings were positive, the role of ESG was still subject to debate (Friede et al., 2015). Traditional perspectives suggested that ESG was costly because social responsibility activities created expenses. In conformity with Alexander and Buchholz (1978), these costs were believed to reduce profitability and lead to competitive disadvantage. There were many recent relevant studies reporting negative nexus as well (Duque-Grisales & Aguilera-Caracuel, 2019; Nollet et al., 2016; C.-W. Peng & Yang, 2014). Otherwise, early studies indicated that CSR had a positive impact on CFP (Burnett & Hansen, 2008; Rodgers et al., 2013). This opposite view was promoted by stakeholder theory. Any stakeholder dissatisfaction had the potential to affect economic rents and even jeopardize a company's prospects (M. E. Clarkson, 1995). CSR was thus required to preserve company profit (Epstein & Buhovac, 2014). Many other country-focused studies showed a positive ESG-CFP relationship as well (Chang & Lee, 2022; Cheng et al., 2023; Fatemi et al., 2018).

Contributing to the literature, research on ESG in Southeast Asia was inadequate. The results of these rare studies were still controversial due to a lack of empirical evidence. Handayani (2019) examined the effects of ESG performance on economic performance in Indonesia in 2015-2017 and found a mixed result. Similarly, the study of Atan et al. (2018) showed mixed results. Tarmuji et al. (2016) investigated the impact of ESG practices on economic performance using data from two countries Malaysia and Singapore from 2010 to

2014 and found that social and governance practices significantly influenced economic performance. Chairani and Siregar (2021) inspected listed firms in 5 ASEAN countries Indonesia, Malaysia, Philippines, Singapore, and Thailand from 2014 to 2018 and indicated that ESG improved the impact of enterprise risk management (ERM) on firm value and that ERM had a positive link with both firm value and profitability. Moreover, it was documented that ESG certification lowered a firm's cost of capital and significantly increased firm value in Malaysia (Wong et al., 2021).

Following an extensive literature review, we find that there are several studies on ESG in Southeast Asia but they are mostly country-focused studies conducted in Indonesia, Thailand, or Malaysia. The topic is contemporary and uninvestigated in other Southeast Asian countries like Vietnam, Laos, Myanmar, and the Philippines. Additionally, the data used in previous studies are insufficient to provide generalized convincing evidence. These leave spaces for future research. Thus we propose research hypotheses H1 and H2 in agreement with the mainstream findings as follows:

H1. ESG performance is positively related to firm value

H2. ESG performance is positively correlated with firm profitability

Considering the ambiguity about the correlation between sustainable development and different types of cash flows within the business, it is necessary to explore the relationship in the overall literature. The effect of ESG activities on firm financing constraints has been studied by many scholars in previous published works (Bai et al., 2022; Ge et al., 2022; Liu et al., 2021; L. S. Peng & Isa, 2020; Tang, 2022). Liu et al. (2021) documented that Chinese firms with better corporate environmental performance endured significantly lower finance constraints. According to Bai et al. (2022), good ESG performance firms could reduce their financing constraints and encourage institutional investors to increase their shares. However, the influence of environmental, social and governance practices on firms' cash flows, especially cash flows from financing activities, has not been widely empirically explored (P. M. Clarkson et al., 2008; Okpa et al., 2019). According to A. Gregory et al. (2014), participating in CSR activities was a form

of investment, that entailed initial costs for future financial benefits, hence it might have a positive impact on the long-run future cash flows, but short-run cash flows were negatively affected (Qiu et al., 2016). Islam et al. (2021) documented that increases in free cash flow were associated with increases in CSR expenditure, implying the prevalence of agency issues surrounding CSR spending between management and shareholders. In addition, Jia and Li (2022) investigated the link between corporate sustainability performance and future cash flow for Australian listed firms and confirmed a positive relationship. Similarly, R. P. Gregory (2022) stated that increasing ESG activities would tend to boost the cash flows of firms.

Overall, there is inadequate empirical literature regarding the relationship between ESG and a firm's cash flows for emerging economies. We argue that financing cash flow is specifically showing the point of view of investors and creditors on firm ESG activities better than other types of cash flows. Therefore, we propose to test the following hypothesis:

H3. ESG performance is positively related to financing cash flows

3. Methodology

Data collection

We conducted our research over nine years, from 2014 to 2022, as this period had the most recent and complete data, ensuring the robustness of the results. Concerning the number of nations, we collected data for the 11 potential Southeast Asian nations via Refinitiv Eikon. Ultimately, our final dataset included six countries: Malaysia, Thailand, Singapore, Indonesia, the Philippines, and Vietnam, with comprehensive data for all variables. Laos, Myanmar, and Cambodia were excluded from the study due to insufficient data for the variables, especially ESG variables. Additionally, East Timor and Brunei were not considered as they lack stock exchanges. As a result, we compiled data from 3,891 publicly listed companies on stock exchanges in Malaysia, Thailand, Singapore, Indonesia, the Philippines, and Vietnam for the period 2014 to 2022. We then filtered for companies with available ESG scores, resulting in a sample of 630 companies and 2,174 firm-year observations. Table 1 provides a summary of the dataset.

Table 1. Data sampling

Country	Exchange name	Number of total listed companies	Firms with ESG scores	Percentage of firms with ESG scores	Number of observations	Percentage of observations
1. Vietnam	Hochiminh stock exchange	396	23	3.65%	46	2.12%
2. Thailand	Stock exchange of Thailand	694	145	23.02%	512	23.55%
3. Singapore	Singapore exchange	633	85	13.49%	447	20.56%
4. Malaysia	Bursa Malaysia	1,009	293	46.51%	707	32.52%
5. Philippines	Philippine stock exchange, inc.	286	29	4.60%	164	7.54%
6. Indonesia	Indonesia stock exchange	873	55	8.73%	298	13.71%
Total		3,891	630	100%	2,174	100%

Model specification

Table 2 presents the list of variables and their measurements employed in this study.

Table 2. Summary of variables

Variables	Definition	Sources
Dependent Variables		
TobinsQ	(Equity Market Value + Liabilities Market Value)/(Equity Book Value + Liabilities Book Value)	(Aydođmuş et al., 2022; Bhaskaran et al., 2020; Giannopoulos et al., 2022)
ROA	Return on Assets = Net Income/Total Assets	(Duque-Grisales & Aguilera-Caracuel, 2019; Giannopoulos et al., 2022; Shakil, 2021)
FCF	Cash flows from financing activities/ (Long-term debts (LD) + total equities (TE))	(Ni et al., 2020); (Itan & Riana, 2021)
Independent Variables		
ESGCS	ESG combined score	Refinitiv
ENV	Environmental score	Refinitiv
SOC	Social score	Refinitiv
GOV	Governance score	Refinitiv
Control Variables		
Firm Size (LogTA)	Logarithm of Total Assets	(Choi & Yoo, 2022; Giannopoulos et al., 2022)
Leverage (TDTA)	Total Debt/Total Assets	(Choi & Yoo, 2022; Giannopoulos et al., 2022)

In this paper, we utilized all ESG scores from the Refinitiv database. Refinitiv is one of the world's largest ESG rating agencies, which provided data going back to 2002. Many scholars have used ESG scores provided by Refinitiv in their research (Bodhanwala & Bodhanwala, 2022; Duque-Grisales & Aguilera-Caracuel, 2019; Giannopoulos et al., 2022). Table 3 delivers a description of the Refinitiv ESG score range.

Table 3. Refinitiv ESG ratings

Score Range	Description
From 0 till 25	Poor relative ESG performance and insufficient transparency in the public disclosure of relevant ESG data.
From 26 till 50	Satisfactory relative ESG performance and moderate transparency in the public disclosure of relevant ESG data.
From 51 till 75	Good relative ESG performance and above-average transparency in the public disclosure of relevant ESG data.
From 76 till 100	Excellent relative ESG performance and a high degree of transparency in the public disclosure of relevant ESG data

Source: Refinitive

We used 3 models to investigate the research objectives of the study, one for Tobin's Q, one for ROA, and one for FCF. Due to the correlation between variables, we designed a separate model for each independent variable (ESGCS, ENV, SOC, and GOV):

- $TobinsQ_{it} = \beta_0 + \beta_1 ESGCS_{it} + \beta_2 LogTA_{it} + \beta_3 TDTA_{it} + \varepsilon_{it}$
- $TobinsQ_{it} = \beta_0 + \beta_1 ENV_{it} + \beta_2 LogTA_{it} + \beta_3 TDTA_{it} + \varepsilon_{it}$
- $TobinsQ_{it} = \beta_0 + \beta_1 SOC_{it} + \beta_2 LogTA_{it} + \beta_3 TDTA_{it} + \varepsilon_{it}$
- $TobinsQ_{it} = \beta_0 + \beta_1 GOV_{it} + \beta_2 LogTA_{it} + \beta_3 TDTA_{it} + \varepsilon_{it}$
- $ROA_{it} = \beta_0 + \beta_1 ESGCS_{it} + \beta_2 LogTA_{it} + \beta_3 TDTA_{it} + \varepsilon_{it}$
- $ROA_{it} = \beta_0 + \beta_1 ENV_{it} + \beta_2 LogTA_{it} + \beta_3 TDTA_{it} + \varepsilon_{it}$
- $ROA_{it} = \beta_0 + \beta_1 SOC_{it} + \beta_2 LogTA_{it} + \beta_3 TDTA_{it} + \varepsilon_{it}$
- $ROA_{it} = \beta_0 + \beta_1 GOV_{it} + \beta_2 LogTA_{it} + \beta_3 TDTA_{it} + \varepsilon_{it}$
- $FCF_{it} = \beta_0 + \beta_1 ESGCS_{it} + \beta_2 LogTA_{it} + \beta_3 TDTA_{it} + \varepsilon_{it}$
- $FCF_{it} = \beta_0 + \beta_1 ENV_{it} + \beta_2 LogTA_{it} + \beta_3 TDTA_{it} + \varepsilon_{it}$
- $FCF_{it} = \beta_0 + \beta_1 SOC_{it} + \beta_2 LogTA_{it} + \beta_3 TDTA_{it} + \varepsilon_{it}$
- $FCF_{it} = \beta_0 + \beta_1 GOV_{it} + \beta_2 LogTA_{it} + \beta_3 TDTA_{it} + \varepsilon_{it}$

Where TobinsQ_{it}, ROA_{it}, FCF_{it}, were dependent variables, ESGCS_{it}, ENV_{it}, SOC_{it}, GOV_{it} were independent variables, LogTA_{it}, TDTA_{it} were control variables and ε_{it} was the error term for firm i in period t.

4. Results

Descriptive statistics results

Table 4. Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Dependent variables					
TobinsQ	2,174	1.95416	2.070627	0.3100606	22.23284
ROA	2,174	0.0514161	0.3827963	-17.31845	0.7934309
FCF	2,174	-0.042335	0.2034427	-1.866713	2.122351
Independent variables					
ESGCS	2,174	45.91919	18.90715	1.300686	92.0953
ENV	2,174	38.25591	24.96055	0	97.40022
SOC	2,174	49.73176	22.32755	0.7009424	97.48202
GOV	2,174	48.86412	21.94981	1.163522	98.73576
Control variables					
LogTA	2,174	9.320126	0.6654838	7.175876	10.9869
TDTA	2,174	0.5230052	0.4294123	0.0217017	18.26288

Descriptive statistics of the study sample were reported in Table 4. Correspondingly, the mean for Tobin's Q was 1.95, ROA was 5.14%, and FCF was -4.23% indicated that investors were highly interested in businesses in our dataset, and most of

the companies in the dataset seemed to have normal efficiency in generating net income. ESG mean scores in the sample showed that the dataset had satisfactory relative ESG performance and moderate transparency in the public disclosure of ESG, with the most prominent disclosure being the Social score.

Correlation results

The Pearson correlation matrix for each variable was shown in Table 5. Noteworthily, ESG scores were highly correlated among themselves. It is no wonder that individual ENV, SOC, and GOV scores are used to calculate ESGCS in Refinitiv.

Table 5. Pearson correlation matrix

	TobinsQ	ROA	FCF	ESGCS	ENV	SOC	GOV	LogTA	TDTA
TobinsQ	1.0000								
ROA	-0.0326	1.0000							
FCF	-0.4468(*)	-0.1156(*)	1.0000						
ESGCS	0.0727(*)	0.0405	-0.1497(*)	1.0000					
ENV	0.0033	0.0133	-0.1142(*)	0.8446(*)	1.0000				
SOC	0.0752(*)	0.0517(*)	-0.1563(*)	0.9021(*)	0.7471(*)	1.0000			
GOV	0.0412	0.0219	-0.0706(*)	0.6648(*)	0.3353(*)	0.4190(*)	1.0000		
LogTA	-0.2603(*)	-0.0261	0.1235(*)	0.2499(*)	0.3587(*)	0.2241(*)	0.0593(*)	1.0000	
TDTA	0.1280(*)	-0.8896(*)	0.0135	0.0053	0.0273	-0.0109	0.0020	0.1437(*)	1.0000

(*) Pearson coefficients are statistically significant at 0.05 level

To check multicollinearity, we relied on the variance inflation factor (VIF). We certified that there was no multicollinearity after removing the highly correlated independent variables from the model, and certainly validated that all variables in the model had VIF ratios in the range of 1.02 - 1.11, significantly below 10.

Test results

We performed the Augmented Dickey-Fuller (ADF) test to decide whether the data was stationary or not. Based on p-value, we concluded that all dependent variables were stationary and usable in their original forms in the model without any transformation.

The Hausman test was performed to select the most suitable model. Table 6 reports the results of the Hausman test on model selection.

In order to check for serial correlation, we used the Breusch-Godfrey/Wooldridge test. While serial correlation could be a problem in macro panels with long time series, it was not a problem in micro panels with short time series like ours.

Eventually, we applied the Breusch-Pagan test to investigate heteroskedasticity and reported the results in Table 7. In summary, we had heteroskedasticity and some serial correlation in the research models.

We invoked robust standard errors option into fixed effects models to fix these problems.

Table 6. Hausman test

Dependent Variables	Explanatory Variables	Test Result	Chi-Square Statistic	p value
TobinsQ	ESGCS	Fixed effects	71.62	0.0000
	ENV	Fixed effects	54.19	0.0000
	SOC	Fixed effects	67.04	0.0000
	GOV	Fixed effects	41.86	0.0000
ROA	ESGCS	Fixed effects	892.49	0.0000
	ENV	Fixed effects	896.34	0.0000
	SOC	Fixed effects	896.90	0.0000
	GOV	Fixed effects	877.98	0.0000
FCF	ESGCS	Fixed effects	62.54	0.0000
	ENV	Fixed effects	61.66	0.0000
	SOC	Fixed effects	63.14	0.0000
	GOV	Fixed effects	45.60	0.0000

Table 7. Heteroscedasticity test

Dependent Variables	Explanatory Variables	Test Result	Chi-square statistic	p-Value
Tobin's Q	ESGCS	Positive	5.4e+36	0.0000
	ENV	Positive	9.5e+36	0.0000
	SOC	Positive	5.0e+37	0.0000
	GOV	Positive	1.7e+37	0.0000
ROA	ESGCS	Positive	2.6e+37	0.0000
	ENV	Positive	1.8e+36	0.0000
	SOC	Positive	8.5e+36	0.0000
	GOV	Positive	9.6e+35	0.0000
FCF	ESGCS	Positive	2.4e+36	0.0000
	ENV	Positive	7.6e+35	0.0000
	SOC	Positive	3.3e+35	0.0000
	GOV	Positive	8.5e+40	0.0000

Regression results & discussions

The results of regression analysis are shown in Tables 8, 9, 10. We conduct all tests and regressions in Stata 16.

ESG performance and firm value

Table 8. Tobin's Q - Fixed effects regression results

Dependent Variable: Firm value proxied by Tobin's Q (Robust standard errors specified under variable Coefficients)				
	Model 1	Model 2	Model 3	Model 4
ESGCS	-0.115952 (***) (.0044312)			
ENV		-0.00888 (***) (.0032628)		
SOC			-0.0098073 (***) (.0034359)	
GOV				-0.0039649 (.0033219)
LogTA	-1.532465 (***) (.4184676)	-1.509031 (***) (.4308024)	-1.551993 (***) (.4189479)	-1.904738 (***) (.3707957)
TDTA	.1973474 (.8475168)	.2591215 (.834079)	.1943648 (.848714)	.2467039 (.8569311)
F(3,629)	12.31	13.3	13.77	10.45
P value	0.0000	0.0000	0.0000	0.0000
Observations	2,174	2,174	2,174	2,174

p < 0.05; *p < 0.01

As shown in Table 8, the impact of ESG combined score, Environmental score, and Social score were nearly the same on firm value at the statistical significance of 1% level, while we could not see the effect of Governance score on firm value within our dataset at the statistical significance level. Our results suggested that listed firms in Southeast Asia with better ESG performance did not have greater market valuation. From the investors' point of view, being a socially responsible company means spending money, which affects stockholders' interests. According to these perspectives, there is a conflict of interest between stockholders and other stakeholders. Besides, the implementation of ESG activities may not be performed or informed in the correct manner, thus not ensuring prestige from shareholders. Based on that, we confirmed the model between the firm value and ESG performance as follows:

$$\text{TobinsQ} = -0.0116 * \text{ESGCS} - 1.5325 * \text{LogTA}$$

ESG performance and Firm profitability

Table 9. Return on assets - Fixed effects regression results

Dependent Variable: Profitability proxied by ROA (Robust standard errors specified under variable Coefficients)				
	Model 1	Model 2	Model 3	Model 4
ESGCS	-.0005962 (***) (.000205)			
ENV		-.0004103 (***) (.0001464)		
SOC			-.0005956 (***) (.0001711)	
GOV				-.000087 (.000158)
LogTA	.0572619 (.0394908)	.0559575 (.0386874)	.0603412 (.039395)	.0355997 (.0359713)
TDTA	-.2941142 (***) (.0509447)	-.2907554 (***) (.0499847)	-.2951972 (***) (.0505319)	-.2901781 (***) (.0505406)
F(3,629)	21.51	22.96	22.67	23.97
P value	0.0000	0.0000	0.0000	0.0000
Observations	2,174	2,174	2,174	2,174

p < 0.05; *p < 0.01

As observed in Table 9, it can be concluded that the implementation of ESG practices by enterprises in Southeast Asia has not yielded the anticipated profitability. In other words, ESG performance negatively affects how a firm utilizes or manages its assets to generate profits or higher

returns. Throughout our research, we found that the more resources an enterprise allocates to ESG initiatives, the poorer its business results tend to be. This outcome is understandable, considering that most Southeast Asian countries have recently embraced ESG practices, and actions in the early stages may not yield immediate profitability due to the relatively high costs associated with ESG implementation. Alternatively, when a company makes substantial investments in ESG activities, it may divert resources needed for regular operations, resulting in a decline in profit performance. Consistent with the result, we affirm the model between the firm profitability and ESG performance as below:

$$\text{ROA} = -0.0006 * \text{ESGCS} - 0.2941 * \text{TDTA}$$

ESG performance and Financing cash flows

Table 10. Financing cash flows - Fixed effects regression results

Dependent Variable: Financing cash flows (Robust standard errors specified under variable Coefficients)				
	Model 1	Model 2	Model 3	Model 4
ESGCS	-.0015972 (***) (.0005532)			
ENV		-.0013112 (***) (.0003863)		
SOC			-.0010306 (***) (.0004636)	
GOV				-.0006977 (.0004517)
LogTA	.2380531 (***) (.0809148)	.2460483 (***) (.0826893)	.2210452 (***) (.0829998)	.1900444 (***) (.0740808)
TDTA	.1747542 (.1377)	.1829164 (.1360207)	.177603 (.1376131)	.1797389 (.1391412)
F(3,629)	8.38	8.28	6.26	7.92
P value	0.0000	0.0000	0.0003	0.0000
Observations	2,174	2,174	2,174	2,174

*p < 0.1; **p < 0.05; ***p < 0.01.

Following the data presented in Table 11, the findings indicated that a company's financing cash flows were impacted by environmental activities, followed by social activities, and not at all by governance activities. Our findings imply that Southeast Asian companies prioritizing environmental, social, and governance factors and displaying strong ESG performance may encounter financial constraints or challenges in securing funds through financing activities. It indicates that investors, lenders, or capital markets may exercise

greater caution or impose stricter requirements when providing financial resources to companies with higher ESG standards. This phenomenon may be attributed to the perception that companies with strong ESG performance may have higher operational costs or additional expenses related to sustainable practices, potentially affecting their earnings. Consequently, these companies have to face higher borrowing costs or more stringent lending terms, as investors and lenders are concerned about their ability to generate profits and repay debts. Upon the conclusion, we determine the model between financing cash flows and ESG score as follows:

$$FCF = -0.0016 * ESGCS + 0.2381 * \text{LogTA}$$

In summary, the regression results allowed us to reject all three Hypotheses 1, 2, and 3 on the existence of significant positive relationships between ESG performance and firm value, firm profitability, and financing cash flows in Southeast Asia.

Robustness test

First, we excluded the enterprises belonging to banks or financial institutions from the sample because the financial sector operated under distinct regulatory frameworks compared to other industries. The results for TobinsQ and ROA were found to be robust and consistent with the original model that used the full sample, even after excluding the financial sectors. In respect of financing cash flows, we observed a slight change in the significance level when the firms from financial sectors were excluded. While this change indicated a slightly weaker statistical association, it was important to note that the relationship between ESG performance and financing cash flows remained significant, at a 5% level.

Second, we omitted all businesses in Malaysia because this country had the highest percentage in the sample, accounting for 46.51% of the dataset. The statistical results for all dependent variables persisted robust, although the significance level slightly decreased. It was noteworthy that, with respect to the financing cash flows, the impact of the Social variable was no longer statistically significant after removing businesses in Malaysia.

5. Conclusions

Across all 12 research models, where the dependent variables are firm value, profitability,

and financing cash flows, we consistently confirm that the ESG combined score exhibits a negative and highly significant relationship with the dependent variables. Specifically, both the Environmental and Social scores demonstrate highly significant negative relationships with all three variables. However, we find that there is no statistical relationship between the Governance score and the dependent variables Tobin's Q, ROA, and financing cash flows. From a theoretical standpoint, these results align with shareholder theory rather than stakeholder theory. Our findings support prior studies in the context of emerging markets (Duque-Grisales & Aguilera-Caracuel, 2019; Kalia & Aggarwal, 2023). However, we differ from Aydoğmuş et al. (2022), who claimed a positive association between the ESG combined score and Tobin's Q and ROA. These differing findings arise due to variations in study scope and data sources.

Due to geopolitical instability, industries underwent numerous changes during the research period from 2014 to 2022. In agreement with Whelan et al. (2021), who showed that engaging in ESG activities might pose several shortcomings and challenges, particularly during periods of socioeconomic crisis, our regression analysis reveals that investors do not expect or value the ESG performance of Southeast Asian companies. This can be explained by investors' concerns when the cost of implementing ESG activities is too expensive for businesses in the early stages of execution. On the other hand, the higher the ESG score, the lower the financial cash flow will decrease, implying that ESG implementation will be accompanied by positive financial cash flow signals such as the company increasing debt repayment, paying dividends, or buying back shares. However, capital markets may be more demanding when providing ESG companies with more sources of finance.

In conclusion, we recommend that businesses in Southeast Asia thoroughly examine and restructure their ESG implementation strategies and processes to maximize efficiency and ensure that ESG execution will soon be advantageous to all stakeholders. We conducted the study under the assumption that ESG firms will not undergo economic and social changes as much as non-ESG firms. Hence, the research scope from 2014

to 2022, which includes the global COVID-19 pandemic, a time when enterprises worldwide experienced significant disruptions, is selected. Future research should examine the pre- and post-pandemic periods individually to better understand the influence of COVID-19 on the observed relationships. Furthermore, the data used in this paper for assessing ESG performance is sourced solely from Refinitiv. The exclusivity of data from a single source may limit the broader representation of ESG practices across various rating methodologies. Future studies should diversify the data sources by using different rating agencies like Bloomberg, KLD, Sustainalytics, S&P Global, Moody's ESG Solutions Group, MSCI ESG Ratings. Finally, other proxies for variables and other estimation methods could be employed to strengthen the overall findings.

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