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THE MEDIATION EFFECTS OF TAX AVOIDANCE BETWEEN ESG AND COST OF DEBT, FIRM VALUE: EVIDENCE FROM ASEAN LISTED CORPORATIONS

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Abstract

The object of this research is to explore whether environmental, social, and governance (ESG) activities have an influence on capital structure, tax avoidance, and firm value in the context of Southeast Asia. Also, examining whether existing two mediating effects of corporate tax avoidance between ESG activities and the cost of debt, and between ESG activities and firm value. The researchers applied regression models and the Sobel test with a total of 1105 samples that are existing listed companies reporting ESG on the Refinitiv data stream from 2018-2021. The results pointed out that ESG has a positive significant impact on tax avoidance, firm performance, and the debt of the firm. It also showed a positive correlation effect between tax avoidance and the value of the firm. Tax avoidance plays a partial mediation role between ESG and firm value. Therefore, research findings contribute to the related literature and associated partitioners and investors could apply the results for managing corporations and understanding corporations' operating strategies in the ASEAN region.

Research paper

Keywords: Environmental, Social, and Governance (ESG); Tax avoidance; Firm value; Cost of debt

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Introduction

Not only the whole world will continue to fight the resurgent Covid-19 pandemic, but we also have to deal with the wrath of Mother Nature in the first half of 2021. Represented as flash floods in China and Western Europe or forest fires in the US, Canada, and Russia. The main reason is due to serious environmental pollution. Along with the global warming phenomenon that people are facing for many years, environmental protection, as well as positive social activities, are of primary concern to economists and businesses. Creating a strategy is essential to add value to society, finance, and the environment. Therefore, company corporate social responsibility (CSR) or ESG practices are vital for the contemporary global economy.

ESG includes environmental, social, and corporate governance initiatives. This is considered a measure of business ethics by companies as it relates to social activism or environmental protection in business driven by corporate social responsibility. The findings of Eliwa et al. (2019a) in Europe demonstrated that ESG can push the value of enterprise because consumers tend to pay more for companies with strong ESG activity. Stakeholder theory also arouses its orientation toward the community as a prioritized aspect when supposes that establishing durable relationships and having used value for all stakeholders like customers, employees, suppliers, local communities, and creditors are the core essence (Freeman & Dmytriyev, 2017). However, when the studies were conducted in not only Western but also in Asia countries, the results have different arguments as Fatemi et al. (2018) stated that ESG will increase a company's value through its strengths but can also drag value down because of its weaknesses. In addition, following the trade-off view of traditional economics, a study in ASEAN postulated that the expenditures invest and used in the CSR initiatives evoked by enterprises may exceed the financial gains acquired from it(Hendratama & Huang, 2021). Therefore, it revealed that each region has different efficacy in conducting ESG activities in firms.

In line with the goals of the company and its shareholders, managers must generate profits and minimize costs. Obviously, CSR practices have also been based on the enterprises' economic goals to their social obligations. Tax is one of the huge expenses for businesses, especially the larger the business, the higher the tax costs. Therefore, reducing the burden of tax is an essential economic goal in financial management (Yoon et al., 2021). There are many conflicting findings linked to the interconnection in the middle of social activities and corporate tax avoidance (Batrancea et al., 2019, 2022). Researchers have shown that socially active companies will not do things that are unethical and affect the public interest (Murray & Montanari, 1986; López-González et al., 2019). This perspective also concurs with corporate culture theory (Kreps, 1990). It means that the firm with lower tax evasion attitude can be along with the higher ESG activities. In contrast, Godfrey (2005) and Mao (2019) concluded that ESG practices are beneficial to tax elusion activities. Similarly, the research of Dakhli (2021) figured out that many findings agreed with there are lower tax sheltering activities when applying ESG in China (Rahman & Leqi, 2021, Rahman et al., 2022), in the UK (Mouakhar et al., 2020), in developed maritime nations (Para-González & Mascaraque-Ramírez, 2019). However, there are very few articles that considered firm tax practices and social actions in developing countries such as Southeast Asian countries.

In addition to the debatable issues related to firm value and tax, the sustainability activities also have positive dealings with the debt cost peculiar to some viewpoints (Weber et al., 2014; Zeidan et al., 2015), quite the reverse, Hasan et al. (2017); Ge and Liu (2015); Eliwa et al. (2019a) provided that there is an inverse correspondent between ESG and debt. Therefore, despite worldwide recognition of the value of CSR actions, their impact on practice remains controversial. The concern about the activities of CSR in developing countries as well as its relation to debt, tax avoidance, and firm value makes us assess whether developing nations like the Association of Southeast Asian Nations (ASEAN) region are doing a good job at this or just a corporate profit-making tool.

As mentioned above, there are a lot of researches and disagreements about the findings among ESG, debt expenditure, the evasion of tax, and firm worth. For that reason, the major purpose of this study is to develop a model to clarify the relationship among ESG, cost of debt, tax avoidances and firm performance and initially tax avoidance are treated as the mediating variable. Moreover, the ASEAN countries are facing unequal and relatively low corporate tax, leading to an increasing budget deficit, which consequently affects the public debt. In 2018, the deficit spending of this region was 1.5% (Thanh et al., 2020) and this number is forecast to rocket year by year. The government needs to come up with a solution to tighten unnecessary costs and raises taxes from businesses. That is likely to create a wave of tax avoidance on businesses. Thus, the ability to take advantage of the public's trust as well as related other parties to profit from CSR achievement to avoid taxes or increase borrowing and growth stock value is very disturbing. However, there has been no study evaluating the role of tax evasion and debt expense through which influence on social activities and firm value. Hence, this paper would help the government to know whether ASEAN companies are trying to utilize consumer beliefs on social connection to avoid firms' responsibility on tax in order to increase the profit and also help the investors as well as managers to explore the changing in the firm's debt when firms try to increase tax avoidance through ESG reputation.

To fill up the gaps, a few questions may arise: Does ESG affect firms' tax avoidance behaviors? What is the relationship between tax avoidance on debt expenditure and firm value? And does tax avoidance play a mediation part between ESG and cost of debt as well as ESG and firm value? Data is taken from listed companies in the ASEAN region for 4 years from 2018-2021, this research empirically examined to resolve the disputation about corporate social responsibility role on the firm level in ASEAN countries and the relationship among ESG, tax avoidance, cost, and firm value. Tax avoidance is considered as a mediator to consider whether existing the correlation between ESG and two variables of debt and firm achievement, thereby having a more accurate view of how ESG affects the tax evasiveness behaviors of companies through firm characteristics. The event at the end of October 2021 marked the cooperation of G20 leaders when they endorsed the global minimum tax on big businesses, making it more difficult for multinational corporations by 2023 – including giants like Apple, Amazon, Google, Facebook, or Microsoft – to avoid taxation by setting up offices in low-taxable jurisdictions. This event demonstrates that mega-companies should do more to fulfill their obligations and responsibilities in safeguarding sustainable development, and also considering the link between tax avoidance issues turns around CSR, cost and firm value is the foundation for the following research to develop future studies with the minimum tax rate applying for large companies in the world.

The rest parts of the paper proceed as follows. The next section is to provide the background of relevant literature reviews related to the relationships of ESG surrounded by tax avoidance, debt, and firm value, followed by hypothesis development. Data analysis conducted by regression models and the Sobel test is outlined in section 3. Section 4 details the results. Finally, section 5 recapitulates the findings, and discussions then offers some implications and precedes future research.

Literature review and hypotheses

The economies of countries are being severely damaged by natural disasters at an alarming rate, so corporate philanthropy plays an important and urgent role. It is not only reflected in environmental protection activities, improving product quality along with being environmentally friendly but also in improving the working environment, and respecting the human rights of employees. However, standardizing the quality of CSR activities of companies is the most important thing. ESG score is a tool that measures a company's CSR performance across three activities: environmental, social, and governance.

It is imperative that companies prevent damage to the environment during the production process as well as ensure the health of consumers. That is considered the expectation from the people. Sanctions in legal restriction forms will be enforced on companies that fail to comply with those expectations to each degree of severity. Therefore, companies make efforts to disclose ESG scores to the public. However, the motivation for making the

ESG report has been controversial. Eliwa et al. (2019a) mentioned two main drivers for this action of companies as the substantive management approach and the symbolic management approach. To achieve legitimacy in CSR activities, the substantive management approach adopted real changes in its actions according to social norms. Then, these businesses have issued reports with transparency and accurate-quality information to stakeholders. However, in order to receive compliments from stakeholders, many enterprises have influenced the ESG indicators, thereby building an incorrect company image, this is the second approach, named the symbolic management approach.

It can be seen that the ESG report also needs to be highly transparent in order for stakeholders to make accurate investments or lending decisions accordingly. This also contributes to the controversy about the impact of CSR on businesses when researchers have previously argued that social welfare is not a corporate business (Levitt, 1958) or Jensen and Smith (1985) alleged that trying to use the image of helping the public to cover up wrong-doing further exposes the company's profile to be risker, leading to higher debt costs. However, those views have gradually been recognized in a different direction when environmental pollution is increasing and human health is threatened, companies need to have obligations and responsibilities to implement the activities that protect social interests and should be reported honestly. Simultaneously when the company's profits are no longer convincing enough for the stakeholders and ethical values also play a significant part. Business performance, as well as corporate value, are positively affected by CSR activities (Fatemi et al., 2015). As consumers and stakeholders increasingly focus on the qualities of companies, they will favor products from companies with high public interests and will create a wave of boycotts for those acting contrary to the laws of nature.

ESG and Tax Avoidance

Taxes are an important factor in financial decisions. Tax avoidance is seen as a source of funding for businesses. By analyzing and making full use of the state's preferential and supportive policies, businesses can legally appropriate temporary capital through tax avoidance. The company saves the taxes needed to submit to the government by avoiding taxes, which can donate to other investments (Lisowsky, 2010). From these arguments, the evasiveness in tax fetches many benefits to companies, but the government loses a certain amount of revenue, especially for countries with high public debt and notable budget deficits such as the ASEAN region.

Yoon et al. (2021) mentioned that based on the theoretical background of culture and the avoidance of tax, firms that perform social welfare activities are less likely to become involved in tax avoidance behavior inasmuch the public believes these companies will do the right things, typically practicing CSR instead of avoiding taxes to the detriment of the people. Research results of Yoon et al. (2021) recognized that there is a inverse relation between CSR practices and tax avoidance. This means that firms with high social activities are less probable to avoid taxes. This result agrees with López-González et al. (2019) and Jones et al. (2017), their perceptions showed that organizations implementing CSR focus more on reducing avoidance of tax. Besides, by managing their renown through social activities, the uncertainty of tax evasion has been minimized.

Nevertheless, the study of Jones et al. (2017) indicated a converse relationship between CSR practices and avoidance of tax varies across regions, this relationship is significant only in the Asia region, and insignificant in the European, UK, and North American areas. Mao (2019) offered a complete contrast to the above thesis on both the negative and significant relationship in Asia between CSR levels and tax aggressiveness. This study in China suggested that companies with a higher book-tax gap will actively participate in social welfare activities to hide their tendency to avoid taxes. This claim agreed with the previous study by Lanis and Richardson (2012) that the company has a high CSR disclosure related to tax aggressive. Eventually, the implementation of social welfare activities for the community with little effectiveness is also the right behavior due to following business ethics. Therefore, the authors suppose a reverse relationship may exist between ESG activities and tax avoidance.

H1: ESG scores impact inversely on a firm’s tax avoidance.

ESG and Firm performance.

As mentioned in the previous section, the company's interest from consumers and stakeholders is not only related to profits, but also to ethical activities such as social welfare activities. Therefore, consumers have a better view of those businesses as well as support their products. Investors also appreciate the enterprise's market value in the belief that they can gain more. So CSR activities can reduce risks and enhance returns. Heimann and Lobre-Lebraty (2018) proved that in the long run, ESG is a factor that helps stakeholders make decisions when other factors are equal. It connotes a company with a higher ESG performance index will be preferred for selection. Kanter (2011) also stated that disclosure of CSR information by companies will promote strong financial performance. This makes the community more affectionate to the company that produces good ESG performance. It is highlighted by the study by El Ghoul and Karoui (2021) that the performance of ESG impacts beneficially on firm value and demonstrates a positive effect of environmental performance on economic performance. Chouaibi et al. (2021) also proclaimed a similar result that ESG practices is helpful for the result of financial performance in two pieces of evidence in Germany and the UK. According to these arguments, the hypothesis is proposed as follows:

H2: There is a positive relationship between firms' ESG scores and Firm value.

ESG and Cost of Debt

In the quote of Eliwa et al. (2019a), many scientists have shown that there is an inverse relationship between the performance of ESG and the cost of debt. In view of the fact that institutions implementing ESG are considered to be prepared for the future, they have enough financial space to take responsibility for future risks. The Environmental Performance Index (EPI) is designed to better gauge the expectations and volatility of government bond movements in emerging markets(Margaretic & Pouget, 2014). Thus, with high-performance CSR activities, the borrowing costs of these organizations will be reduced.

In contrast, it must be recognized that a good ESG score will bring many benefits to companies. Therefore, the abuse of those indicators is a matter of concern. It can create inaccurate information, leading to a riskier profile and a higher cost of debt. The correlation between ESG scores and the debt cost remains controversial. Creditors must consider very carefully before making a loan decision because they may be directly or indirectly responsible for cleaning up the pollution activities caused by the borrower's insolvency or the borrower's liability or financial penalties associated with welfare activities. Therefore, a few studies as Stellner et al. (2015), Hoepner et al. (2016), and Erragragui (2017) have shown that there is an effective or neutral interrelation between CSR activities and the debt expense. Based on this point, the group of authors suppose the hypothesis as following:

H3: Higher ESG scores increase the cost of debt.

Tax avoidance and Firm performance

In the traditional view, tax avoidance had only one motive, which was to save taxes. However, tax avoidance needs to be considered by complicating and obfuscating the transaction process. Also in the traditional way, tax avoidance will increase the company's cash flow so companies try to dive into this short-term and long-term goal of retaining their cash flow from their income taxes. In essence, the value of the company increases because the cash flow increases. However, in the long run, the company's core values suffer a lot. First, managers can keep the amount of the profits to themselves because of the complexity and uncertainty of the company's financiers taking advantage of government incentives. Second, managers will pay more for personal empire-building when they get free cash flow from tax avoidance. Since then, the future cash flow also decreases, and the value of the business also slips too. Third, Chen et al. (2014) stated that unclear financial information increased ability to earn management, and increased cost of capital are three indirect effects of tax avoidance on the company. That can lead to administrative penalties for erroneous procedures, understatement of tax payments, and loss of credibility with the government and stakeholders. Finally, the business value has decreased.

Tax avoidance can also add value to well-managed companies but does not apply to poorly managed companies. Transparency will help companies limit the abuse of power by managers, thereby helping them make more effective decisions, and avoiding asset appropriation from free-tax cash flow. Wang (2011) also declared that the tax avoidance behavior of transparent companies is usually more positive, but the firm value will drop if the company reduces transparency. However, complete transparency from companies cannot be guaranteed. It takes effort and perfection from many departments and managers of that company. Therefore, if transparency is separated from tax avoidance, the value of the company will diminish. Chen et al. (2014) showed their data in the Chinese market for the period 2001-2009 that listed companies reduced the level of firm value if tax avoidance grows. This is also inconsistent with the study of Jiang et al. (2010) that the impact on taxes leads to the slip of firm value in the long run. The next hypothesis is argued as follows:

H4: Tax avoidance has a negative impact on firm value.

Tax avoidance and Cost of debt.

The cost of debt is the return (interest rate) that a company pays on its debts, for example, bonds and loans. It affects bankruptcy risks, agency expenditures, and information asymmetry troubles. Therefore, companies try to minimize the use of debt by tax-free or tax-avoidance measures (Graham

& Tucker, 2006; Lim, 2011). Tax avoidance will help companies have more abundant money, making businesses descend the need for loans because the company's solvency is improved. Besides, the uplifted financial position of the company makes creditors or banks more confident in the company's ability to repay debts in the future, thereby cutting back on debt costs. In addition, these researchers also found that if tax avoidance is used as an alternative to borrowing, it has the potential to increase financial slack, increase credit quality, and reduce default risk and bankruptcy. Therefore, the authors suppose the hypothesis as:

H5: Tax avoidance impacts negatively on the cost of debt.

Tax avoidance mediates the relationship between ESG and cost of debt, and between ESG and firm performance

Previous observations have shown that a company's positive ESG activity has a converse impact on its tax avoidance attitude. When a company's tax avoidance decreases, it means having an increase in borrowing costs because the company has to pay a large amount of tax liability, so borrowing to offset that cost is inevitable. At the same time, due to high spending on social, environmental, and governance activities, the cost of borrowing also increases to meet these activities. (Graham & Tucker, 2006; Lim, 2011; Stellner et al., 2015; Hoepner et al., 2016; Erragragui, 2017; Jones et al., 2017; Hameed et al., 2021).

Moreover, the active implementation of tax obligations and increased participation in ESG activities have significantly improved the value of the company. This argument is further supported by the inverse interrelationship between ESG scores and elude in taxation in hypothesis 1 and also of tax avoidance on the value of organizations in hypothesis 4, plus the effective correlation of ESG on the worth of enterprises in hypothesis 2(Chen et al., 2014; Jiang et al., 2010; Jones et al., 2017; Mao, 2019; Lanis & Richardson, 2012; Heimann & Lobre-Lebraty, 2018; Kanter, 2011; Chouaibi et al., 2021).

The above evidence shows that tax avoidance plays a substantial in governing the correlation between ESG and debt expenses along with the influence of ESG on firm value. However, none of the previous studies investigated whether tax avoidance really governs the relationship of ESG with the other two variables. Therefore, in this study, we have argued two more hypotheses to clarify whether tax avoidance is a mediator between ESG and the performance of a firm as well as the debt's cost.

H6: Tax avoidance mediates the relationship between ESG and firm performance

H7: Tax avoidance mediates the relationship between ESG and cost of debt.

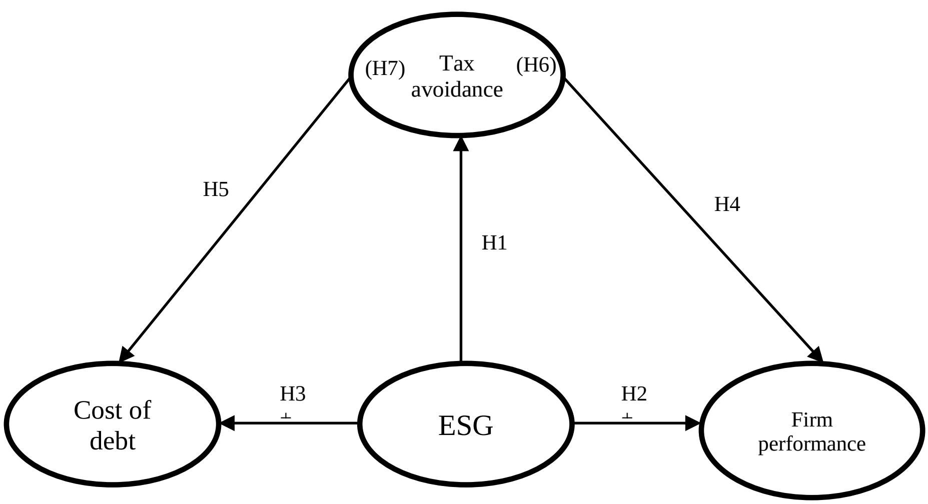

Figure 1. Conceptual framework

Methodology

Data and Sample

Data was collected from multiple sources with the given nature of our study. Financial data were taken from the Data stream Thomson Reuters and used as the control variables in the analyses. In contrast, ESG , tax rate, cost of capital, or firm value was collected from Refinitiv.com from 2018 to 2021. The researchers gathered all related data from 450 ASEAN companies for analysis purposes.

Variable Definitions

ESG is the average of three pillars including E, S, and G scores developed by Refinitiv.com. E-score is a score that evaluates performance in environmental practices. S-score encompasses items that indicate the social practices of companies that relate to employees and the community. G-score is to evaluate the governance category. The book-tax difference (BTD) is used to estimate the tax avoidance degree. BTD equals the difference between Net Income and Taxable Income divided by average assets (Comprix et al., 2011). Accounting performance, market performance, or both will be discussed further as the firm value (Dana et al., 2022; Ramadani et al., 2022). In this paper, the authors used Tobin's Q to examine the firm effectiveness and measured as the market value of equity minus the book value of equity plus total assets scaled by total assets (Tobin, 1969). To measure debt costs, following Francis et al. (2005), Gray et al. (2009), Eliwa et al. (2019b), this research applied the formulation which equals the ratio of an enterprise's interest expenditure to its mean of debt.

Control variables: Followed the study of Zhang et al. (2020), the control variables include Return on Equity, Liquidity ratio, Cash flow, Firm size, Firm age, and State-owned enterprises. The authors also reduce some control variables that do not need to use in this research. Return on Equity (ROE) equals net profit divided by the average owner's equity. The liquidity ratio is equivalent to current assets to current liabilities. Cash flow is measured as the sum of cash and cash equivalents and trading financial assets then divides into total assets. Firm size is evaluated as the logarithm of total assets. Firm age is the business period with the result of the years minus the date of establishment. Lastly, using a dummy variable for state-owned enterprises, 1 represents state-owned enterprises and 0 for non-state-owned enterprises.

Regression Models

The regression models for testing hypothesis one to five are as the follows:

Testing H1: The single relationship between ESG and Tax avoidance:

$Y_i(BTD) = \alpha_0 + \alpha_{1i}ESG + \alpha_{it}Controls + \varepsilon_i$ (1)

Testing H2 and H4: The multiple relationship of ESG and tax avoidance to firm value.

$Y_i(\text{Tobin's Q}) = \beta_0 + \beta_{1i}ESG + \beta_{2i}BTD + \beta_{it}Controls + \varepsilon_i$ (2)

Testing H3 and H5: The multiple relationship of ESG and tax avoidance to cost of debt.

$Y_i(Debt) = \gamma_0 + \gamma_{1i}ESG + \gamma_{1i}BTD + \gamma_{2t}Controls + \varepsilon_i$ (3)

In order to test the mediation effects, Sobel's test might consider applied in the data analysis procedure. The Sobel test method used to test the influence of the intervening variable was proposed by Sobel (1982) and the four steps by Baron and Kenny (1986) to conduct the analysis. This approach is to evaluate the correlation of the independent variable (X) on dependent variable (Y) when these variables are mediated by an interval variable M. The finding of the examing the interrrelation of X on M indicates the value of Beta a and Standard error coefficient (Std) Sa and the value of Beta b and Standard error coefficient Sb might find from testing the correlation impact of M on Y. Sobel's finding is counted by the formulation: z-value = $a*b/SQRT(b^2*s_a^2 + a^2*s_b^2)$. (4)

Results

Summary Statistics

Table 1. Descriptive statistics.

	Obs.	Mean	Median	Minimum	Maximum	Std	Units
ESG	1105	50.1457	51.1251	2.4021	89.8288	18.135	point
BTD	1105	.0140	.0084	(.0559)	.2259	.0006	logarithm
Tobin's Q	1105	1.8075	1.2902	.4012	12.1941	1.4592	logarithm
Debt	1105	10.8306%	3.6521%	(.5400%)	2439.3900%	79.3177%	%
ROE	1105	10.3190%	10.1020%	(3491.1000%)	484.9000%	109.9483%	%
Liquidity	1105	1.6946	1.3064	.0198	14.4681	1.3770	logarithm
Cash flow	1105	545,965,110	258,843,561	(3,784,065,000)	9,140,795,000	955,737,306	USD
Size	1105	22.3036	22.2234	18.4594	26.9549	1.4923	logarithm
Age	1105	45.35	37	2	190	32.7380	age
SOE	1105	n/a	0	0	1	n/a	n/a

Std: Standard error coefficent.

The descriptive outcomes in Table 1 manifest the mean and other pieces of information about 4 main variables (ESG, tax avoidance, debt, and tax avoidance) and the remaining control variables. The ESG score is the mean of three items from the Environmental, Social, and Governance score.

The ESG maximum score is quite high at 89.8288 points, whereas the minimum score is 2.4021 points. ESG mean score is 50.1457 which is larger than the average 50 points marking that the ESG activities of ASEAN companies were acting well. Tax avoidance disparities in this region are different with the maximum value being roughly 0.2259 and the minimum value being about -0.0559. However, the mean tax avoidance rate is nearly 0.014 indicating that the book-tax difference is quite small compared to average assets, besides it also pointed out that tax policy in this region is quite loosened in contrast to negative tax accumulation in China which is tightened by more conservative expenditure recognition than accounting principles (Chen et al., 2013; Salamzadeh et al., 2013; Salamzadeh, 2015). The Tobin's Q mean score is 1.8075 which is higher than 1 demonstrating that the stock value is overvalued or the enterprise's stock is more precious than the asset's cost replacement. It is to be presumed about 10.1020% for the debt ratio. This value is quite safe since the reasonable ratio for debt is acceptably less than 36%, therefore, these companies have yet to fully utilize their debt resources to further influence new investments.

The information in Table 2 indicates the Pearson Correlation among the main and control variables. In four main variables, ESG has an effective correlation with debt at the 5% level. The results also found a positive correlation between tax avoidance and debt spending. However, ESG has no correlation with tax avoidance and firm performance measurement (Tobin's Q), and it also does not occur a significant interrelationship between the two remaining measures Tobin's Q and debt. For the control variables, the results found that two correlations of the control variable "size" on Tobin's Q and the flowing of cash represented a correlation higher than 0.4 means that may have the multicollinearity among these variables. Consequently, the variance inflation factors(VIF) will be tested when testing hypotheses to eliminate multicollinearity between variables.

Table 2. Pearson correlations between ESG, Tax avoidance, Firm performance, Cost of debt, and control variables.

	ESG	BTD	Tobin's Q	Debt	ROE	Liquidity	Cash flow	Size	Age	SOE
ESG	1									
BTD	-.001	1								
Tobin's Q	.011	.389**	1							
Debt	.093**	-.024	-.01	1						
ROE	.042	.140**	.110**	-.001	1					
Liquidity	-.097**	.146**	.003	.046	.024	1				
Cash flow	.204**	.044	-.100**	.033	.071*	-.031	1			
Size	.313**	-.325	-.447**	.046	-.036	-.152**	.564**	1		
Age	.148**	.036	-.048	.035	.036	.018	.239**	.309**	1	
SOE	.146**	-.019	-.046	-.003	-.007	-.051	.208**	.174**	.103**	1

**** p< 0.01 level.**

*** p<0.05 level.**

Testing hypotheses

Table 3 shows the findings of the simple and multiple regression model to test the hypotheses from 1 to 5. In all 3 models, the variance inflation factors(VIF) rank from 1.026 to 2.079, accordingly, multicollinearity can not exist among all variables. Using the simple regression, the Model 1 results found that ESG has a positive relationship with tax avoidance at the level 0.01 with p-value = 0.001; B=0.011(Std=0.003). This is contrary to the author's expectation that there is a negative correlation between tax avoidance and ESG. Therefore, hypothesis 1 is not supported.

The multiple regression analysis method in Model 2 is used to examine hypotheses H2 and H4. The results showed that ESG impacts positively to firm performance with p-value = 0.000(at 0.01 level) and B= 0.011(Std= 0.002). Therefore, H2 is supported. Besides, there is a positive significant effect between tax avoidance and firm performance with p-value = 0.000 (at 0.01 level) and B= 0.147(Std = 0.019). This result is also in contrast to the assumption of hypothesis 4, thus H4 is not supported. The influence of tax avoidance and ESG on debt is shown in Model 3. The multiple regression results reinforce for the hypothesis 3 that the activities of ESG impacts positively on debt of the company at 0.01 level (p-value = 0.003; B = 0.418; Std = 0.142), whereas there is no correlation effect between tax avoidance and debt (p-value = 0.343; B = -1.211; Std= 1.276). For that reason, H5 is not supported.

Table 3. Regression results and VIF test of multicollinearity.

	Model 1			**Model 2**			**Model 3**		
	B	p-value	VIF	B	p-value	VIF	B	p-value	VIF
ESG	.011	.001**	1.127	.011	.000**	1.138	.418	.003**	1.141
BTD	-	-	-	.147	.000**	1.278	-1.211	.343	1.275
ROE	.002	.001**	1.026	.001	.087	1.035	-.003	.896	1.035
Liquidity	.119	.005**	1.037	-.097	.000**	1.045	3.474	.051	1.044
Cash flow	6.74E-10	.000**	1.549	2.21E-10	.000**	1.664	1.28E-09	.695	1.664
Size	-.776	.000**	1.701	-.514	.000**	2.079	.202	.931	2.075
Age	.007	.000**	1.122	.003	.034*	1.138	.045	.563	1.137
SOE	-.056	.796	1.063	-.054	.694	1.063	-5.817	.520	1.063
Adjusted R^2	.212			.305			.006		
n	1105			1105			1105		

**** p< 0.01 level.**

*** p<0.05 level.**

Sobel test:

Based on four steps of Barron and Kenny(1986), the authors established the mediation effect models including correlation significance, Beta, and Std. Error to calculate the z score of Sobel test in Table 4 and Figure 2.

Table 4. Regression results based on Barron and Kenny (1986) for Sobel test.

		p-value	B	Std
H6	Step 1: c: $Y=B_0+B_1X+e$	.000**	.012	.002
	Step 2: a $M=B_0+B_1X+e$	.001**	.011	.003
	Step 3: b $Y=B_0+B_1M+e$	.000**	.156	.020
	Step 4: c' $Y=B_0+B_1X+ B_2M + e$	.000**	.011	.002
H7	Step 1: c: $Y=B_0+B_1X+e$	.004**	.405	.142
	Step 2: a $M=B_0+B_1X+e$	.001**	.011	.003
	Step 3: b $Y=B_0+B_1M+e$	.511	-.837	1.274
	Step 4: c' $Y=B_0+B_1X+ B_2M + e$	.003**	.418	.142

**** p< 0.01 level.**

Using the formula in Model (4), the Sobel tests found that tax avoidance plays a mediator in the association between ESG and firm value at the z-value = 0.000 (lower than 0.01 at the significant level is 1%). Hypothesis 6 is supported. Based on the simple regression, the direct effect between ESG and firm performance is significant, in addition, it showed that tax avoidance partially mediated the relationship between ESG and firm performance (c'=0.011 < c=0.012). The last hypothesis is to test the mediation role of tax avoidance between ESG and capital structure debt. At the z-value = 0.518, it is indicated that tax avoidance does not mediate the correspondence between ESG and debt spending. As a consequence, H7 is not supported.

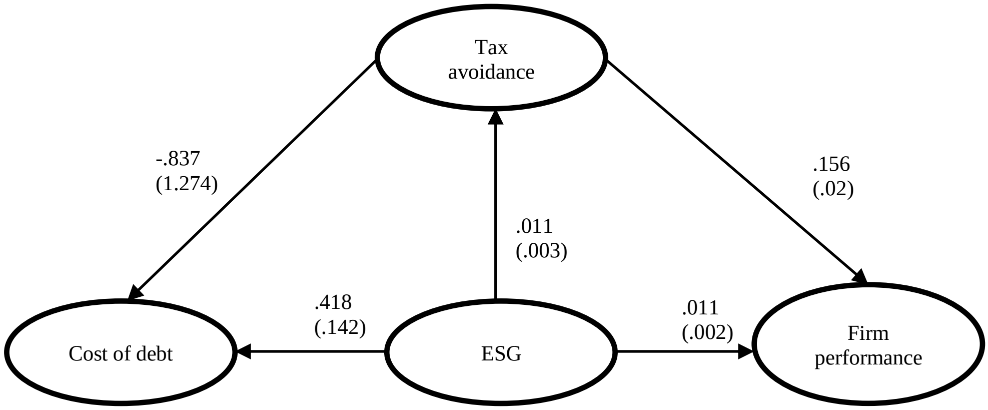

Figure 2. Correlation of mediation effect models.

Table 5. Sobel test results.

	a(coefficient)	**b(b')(coefficient)**	**Sa (Std. Error)**	**Sb(Sb') (Std. Error)**	**Sobel Test**
Sobel test 1	.011	.156	.003	0.02	p=.000**
Sobel test 2	.011	-.837	.003	1.274	p=.518

**** p< 0.01 level.**

Discussions

Implications

This research improves the theoretical literature about the relationship of ESG with three other variables including tax avoidance, the cost of debt, and the value of the firm. Accompanying the examination relationship between tax evasion and firm value and debt spending, it is also possible to see that the avoidance of tax may have a mediating effect on the relationship between environmental, social, and governance sustainability and firm performance as well as debt costs.

Rooted in the simple regression outcome, the present paper reaffirms the findings of Lanis and Richardson (2012) that the evasion of tax increases when the company applies higher ESG activities when running the business.

This is relevant to the arguments of Mao (2019) in China's context and in contrast to corporate culture theory. The argument implies that companies tend to be aggressive the tax actions to gain benefits based on social activities. There are differences in income tax percentages among countries in the ASEAN region which explains why countries in this area are able to easily avoid taxes as interpreted in the previous section. Perhaps the lack of tight tax management policies in a few Eastern countries is another explanation. The adoption of CSR activities to influence the avoidance of tax obligations will have an uncooperative correlation on the image of organizations and plus impact partly on the investors' investment and the public's objective views about volunteering activities. In order to ensure the success of firm charity work, the government should pay closer attention to ESG and tight tax evasion policy. Additionally, the ASEAN countries could reach the same agreement on maintaining the minimum tax rate for 2023.

In general, the authors used multiple regressions to test the four following hypotheses. Consistent with the ideas of (Erragragui, 2017; Stellner et al., 2015; Hoepner et al., 2016), the results explore that ESG activities have a useful influence on both firm worth and debt. The augmentation in the value of the business when rising ESG scores is attributed to the increased trust and support of customers when companies apply social activities seriously and honestly. This is similar to the results of previous researchers such as Kanter (2011) and Chouaibi et al. (2021) and also supports the stakeholder theory. Thence, legitimating the behavior and improving the reputation is the elucidation of why many companies especially the large ones have escalated their efforts to enhance ESG reports. The inflate in corporate value also demonstrates the importance of ethical practices in the ASEAN region. The value increased not only due to the growth in revenue but also the support from partners along with the government, on that ground, foreign investors and businesses need to pay attention when entering this growing market. Furthermore, the government should encourage enterprises to proclaim their CSR reports and also establish the requirements for it.

Increasing social activities in the business enhance the debt expenditure due to the concern of asymmetric information or risks, and errors when do not follow through in the application of CSR policies, causing a rise in debt to deal with the consequences. So this finding is in contrast to the quote of Eliwa et al. (2019a). In another way namely increasing debt capacity is also considered in a more positive direction, which is to grow investment capital for businesses including ESG activities, from which the company's profit source is raised. Therefore, increasing debt costs is not necessarily a bad thing in the model of this study. Moreover, in the descriptive statistics section, the debt ratio of countries in the ASEAN region is about 10%, this debt ratio is considered to be quite low and safe, so supporting debt for investment activities is considered necessary. Thus, managers can easily see that the increase in debt cost is inevitable. However, in order for ESG activities to be carried out properly and still enhance corporate value, the business strategy needs to be carefully prepared so that costs do not exceed profits. At the same time, preferential interest rates supporting good ESG businesses should be put into operation by the government and banks to promote this meaningful action.

Nevertheless, tax avoidance does not significantly affect the cost of debt. Thus, the higher or lower tax avoidance is not related to the company's debt behavior. In other words, it is inevitable that corporations still continue to intensify tax avoidance no matter whether they have high or low debt costs. It is even more clear that the corporations' financial performance is enhanced by tax avoidance behavior in the ASEAN region. The outcomes of this paper are different from Chen et al. (2014) from two perspectives. First, time period. The data collected in this paper is from 2018 to 2021 but Chen et al. (2014) analyzed the results over a longer period of time (9 years, 2001 to 2009). Second, the result of this study revealed a positive relationship between tax avoidance ad firm performance but the other paper (Chen et al, 2014) is not. However, taking advantage of the book-tax difference needs to be followed and consulted carefully in accordance with the law to avoid possible risks in the future. This is a warning for managers when they intend to conduct tax avoidance for increasing profits. The government, simultaneously, should strictly control corporations' tax avoidance behavior and build legitimacy for alleviating community concerns about low tax payments.

The study sheds new light on which no previous study mentions the role of tax avoidance mediates partially the link between ESG scores and firm effectiveness. Even though ESG has a positive effect on firm performance, tax avoidance is stated as a mechanism through which the effect of ESG performance is transmitted partially to the value of the firm. Due to the tax rate difference among ASEAN regions, corporations might try to maximize profits by executing a tax avoidance policy. Community, social and environmental contributions are increasingly promoted in ASEAN, which will further enhance financial performance through tax avoidance. The fact that tax avoidance partially affects the advantage of ESG on business makes investors and the public more interested in the enterprises that are actively promoting ESG activities as well as growing business results and company value and whether these companies are manipulating their tax obligations. Even in this model, tax avoidance has a practical touch on the company's profits, but it does not guarantee that there will be no errors or risks in the future. Moreover, taking advantage of regional free-trade agreements among ASEAN countries has helped businesses make the most of the difference in tax rates between nations, which also enhances retained earnings after tax. The problem of tax avoidance will be gradually overcome by the establishment of the minimum corporate tax rate of G20 will implement in 2023. Therefore, investors who want to join developing regions like ASEAN need to consider and audit carefully before entering.

Limitations and future research

This study still leaves some limitations that could be conducted by subsequent research. First, the time period is from 2018-2021 (four years). As mentioned before, the research results are different from a long time (nine years). Consequently, the following research can extend the time period to a longer time for checking the impact of tax evasion on a firm’s performance. Secondly, the data is limited since it only collected data from 5 countries, namely Indonesia, Thailand, Singapore, Philippines, and Malaysia. Because ASEAN is a developing area, it is hard for some countries to publish ESG reports. Thus, the following studies can explore bigger databases when other nations disclose ESG reports for improving the generativity of research. Third, future studies can explore and test the COVID-19 effect on the model developed in this study (Pereira et al., 2021; Salamzadeh & Dana, 2021, 2022; Dheer & Salamzadeh, 2022; Kawamorita et al., 2020, 2022). Fourth, dividing the sample by industries to test the model again could be conducted in the future. Fifth, the association between ESG and tax avoidance, cost of debt, and firm performance has mixed results. Proving that there are factors governing them. Further research can find out which moderators are affecting the effectiveness of ESG on other values in the business, correspondingly having better applications in both theory and practice. Last but not least, this research uses the Sobel method to test mediation effects, furthermore, it could be used other statistic methods to assess the impact of ESG and tax avoidance on firm performance.

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