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Ownership concentration, sustainability practices, and cost of debt: Evidence from ASEAN countries

Citra Sukmadilaga[1+]
Maria Ervina Permatasari Santoso[2]
Erlane K Ghani[3]

[1,2]*Faculty of Economics and Business, Universitas Padjadjaran, Bandung, Indonesia.*
[1]*Email: citra.sukmadilaga@unpad.edu.id*
[2]*Email: mariaervinaps@gmail.com*
[3]*Faculty of Accountancy, Universiti Teknologi MARA Cawangan Selangor, Malaysia.*
[3]*Email: erlanekg@uitm.edu.my*

(+ Corresponding author)

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ABSTRACT

This study examines the effect of ownership concentration on sustainability practices and the cost of debt. Subsequently, this study examines whether the performance of sustainability practices influences the cost of debt of public listed companies in three ASEAN countries. This study performed a content analysis on the annual reports of 93 public listed companies in Singapore, Malaysia, and Indonesia. The data analysis showed that ownership concentration has a significant negative effect on the cost of debt but no significant effect on sustainability practices. It also showed that there is a significant negative effect of sustainability practices on the cost of debt. Such findings could be attributed to the differences in business relationships between investors and companies and the non-linear relationship between ownership concentration and sustainability practices. This study provides evidence that both ownership concentration and sustainability practices negatively affect the cost of debt of the public listed companies. From the findings, it is recommended that public listed companies should refocus and strategize ways to mitigate the negative effect of ownership concentration and sustainability practices on the cost of debt, particularly in developing countries.

Contribution/Originality: This study contributes to the existing literature by being the first to examine ownership concentration and sustainability practices concurrently in three ASEAN countries, focusing on Indonesia, Malaysia and Singapore.

1. INTRODUCTION

Over the last decades, ownership concentration has significantly increased due to a major aspect of equity holdings, which is the willingness of owners to decide on long-term or short-term incentives (OECD, 2014). Companies with a more concentrated structure are seen to make up a significant portion of the business landscape (Barontini & Caprio, 2006). In Asia, the most dominant concentrated structure is family ownership, particularly in Japan and Taiwan. The biggest growth in family ownership is seen in companies in the Philippines. Meanwhile, in Southeast Asia, state control is dominant in Thailand, Singapore, and Indonesia, with Malaysia and Hong Kong having the largest growth (Dinh & Calabrò, 2019). In some emerging markets, the largest holdings can reach 50%, whereas the holdings are below 40% in developed markets. High ownership concentration can be a refuge for

investors from managers because, in developing countries, it is usually found that legal and institutional protection is still weak. Ownership concentration also plays an important role in oversight and coordination in emerging markets and strongly influences debt agency costs (Ebrahimi, 2022). It was also found that, with a certain limit, high ownership concentration can reduce conflicts between owners and agents in emerging markets (Vega Salas & Deng, 2017). Thus, large shareholders in emerging markets have high coordination and control characteristics and low information asymmetry (Farooq, 2015; Vega Salas & Deng, 2017).

According to research, sustainability is an important aspect in enhancing the connection between businesses and their primary stakeholders (Ghani, Jamal, Puspitasari, & Gunardi, 2018; Jo & Harjoto, 2012; Younas, Klein, & Zwergel, 2017). Owners that are short-sighted pick initiatives that will maximize their benefits in the near term rather than waiting for long-term gains. As a consequence, their judgements might have a negative influence on a company's long-term survival (Siegel & Vitaliano, 2007). Due to its tight control over management, emotional and personal relationships, and financial ties with the organization, investors value a firm's long-term viability and ongoing existence above short-term profitability. Businesses with increasingly concentrated ownership care about more than simply short-term profits (Kappes & Schmid, 2013). Younas et al. (2017) revealed that concentrated ownership is positively related to corporate sustainability using a sample of companies from Germany, the United Kingdom, and the United States from 2004 to 2014. They found that this relationship is more robust and powerful in the United Kingdom and the United States than in Germany. They also observed that when firms grow in size, they become less sustainable. However, it is yet to be seen if this impact represents the Association of Southeast Asian Nations (ASEAN) region.

Section 2 presents the literature review, Section 3 explains the research design, the results are discussed in Section 4, and Section 5 concludes the study.

2. LITERATURE REVIEW

Sustainability performance has supported the emergence of companies' motivation to increase their competitive advantage (Aksoy, Yilmaz, Tatoglu, & Basar, 2020). Ownership concentration is an important factor that affects corporate environmental responsibility (Chen, Wang, Albitar, & Huang, 2021). Differences in ownership structure have an impact on sustainability through the appointment of directors and control procedures (Aksoy et al., 2020). The implications of developing ownership, sustainability and governance practices in developing countries can drive their development (Lozano & Martínez-Ferrero, 2022). Institutional shareholders are a powerful group of stakeholders who typically view sustainability performance as an important factor in their decisions. Observations on company management are carried out by encouraging management to publish more information related to the company's sustainability performance activities. Institutional ownership wants to maintain its public reputation, so it invests in companies with high sustainability performance (Lozano & Martínez-Ferrero, 2022). Similarly, foreign ownership by a country with a high awareness of sustainability performance will improve the sustainability performance of its company and protect its reputation. Major shareholders focus on long-term value creation, thus directing the company to maintain and promote sustainability performance decisions (Lozano & Martínez-Ferrero, 2022).

In the face of the pandemic, the involvement of family in decision-making is not only for business purposes but also to maintain the family heritage, which is one of the family-oriented goals (KPMG, 2021). These decisions also consider survival, inheritance, and good relations with creditors (Gao, He, Li, & Qu, 2020). Social responsibility is carried out by overcoming the effects of the pandemic, which has had an impact on the welfare of the community and the needs of all stakeholders. Family businesses have proven to be strong and adaptable during this pandemic (PwC, 2021). Due to the differences arising from the characteristics of a country, there are differences in the influence of factors on sustainability practices. As in developing countries, institutional factors, one of which is the concentration of ownership, show the greatest power in explaining why companies are more committed to improving their

sustainability practices. Whereas in developed countries, it is more influenced by the board of directors. To protect and improve the company's reputation, thus supporting its sustainability, concentrated owners' support affects sustainability practices positively (Lozano & Martínez-Ferrero, 2022). Therefore, the following hypothesis was developed:

H1: The higher the concentration of ownership, the higher the company's sustainability practices in the three ASEAN countries.

Building collaborative connections with stakeholders may result in new ideas, efficiency, and high motivation, all of which add value to a firm (Jones, Harrison, & Felps, 2018). According to the stakeholder hypothesis, a company's value generation extends beyond shareholders to all stakeholders (Theodoulidis, Diaz, Crotto, & Rancati, 2017). A creditor is one of the most significant stakeholders (Bhattacharya & Sharma, 2019; Eliwa, Aboud, & Saleh, 2019; Gracia & Siregar, 2021). As the risk of failure is often shifted from shareholders to creditors, agency disputes may have an effect on corporate creditors. Creditors may put pressure on firms to be socially and ecologically responsible, increasing the company's economic and moral worth. Companies that maintain open and honest relationships with their creditors benefit from reduced debt expenses (Bhattacharya & Sharma, 2019). According to the legitimacy hypothesis, firms are increasingly attempting to earn legitimacy from stakeholders by justifying their existence via economic and social acts that benefit the environment and the society in which they operate (Burlea & Popa, 2013).

Sustainability techniques have long been essential in Asian developing nations. Sustainability practices are regarded as one of the intangible factors that contribute to a company's reputation, which is a creditworthiness indicator that boosts credit rating agencies' trust (Bhattacharya & Sharma, 2019; Yusoff, Kamaruddin, & Ghani, 2018). Credit ratings are believed to represent borrowers' creditworthiness and capacity to satisfy their financial commitments (Hao & Li, 2021). Other than financial performance, reputation ranking reports employ six categories to assess reputations, two of which are management or governance quality and environmental and social responsibility performance. When the company's equity, ownership, and size are all the same, corporate social reporting success is a significant contributor to financial performance (Bhattacharya & Sharma, 2019; Weber, Scholz, & Michalik, 2010). The credit rating of a corporation is one of the most well-known measures of creditworthiness and is extensively used to reflect default risk. With sustainable practices, a company's credit ratings will improve, indicating decreased default risk and, as a result, cheaper financing costs (Bhattacharya & Sharma, 2019; Hao & Li, 2021). Therefore, the following hypothesis was formed:

H2: The higher the sustainability practices, the lower the cost of debt paid by public listed companies in the three ASEAN countries.

According to Jensen and Meckling (1976), there is an agency conflict between managers and shareholders as well as between creditors and shareholders due to information asymmetry (Jensen & Meckling, 1976; Tran, 2022). With the presence of asymmetric information and financial disputes in the financial market, a creditor cannot fully assess the borrower's risk using publicly accessible financial data. Tran (2022) suggested that information asymmetry from financial markets is stronger in developing countries. The role of ownership structures in allocating debt and determining the cost of debt is becoming increasingly important (Ebrahimi, 2022).

Concentrated shareholders have the ability to reduce creditor disputes. It was discovered that concentrated shareholders used their voting rights to keep an impartial perspective of management initiatives (Sánchez-Ballesta & García-Meca, 2011). According to the shared benefit hypothesis, controlling shareholders are often interested in competent management in order to increase firm value and devise a more efficient strategy. As a result, concentrated ownership may assist creditors by lowering the moral hazard that creditors confront (Stepanova & Kopyrina, 2019). Ownership concentration also reduces managers' opportunistic behavior, cutting investment risk and, eventually, the cost of debt (Stepanova & Rabotinskiy, 2014). Therefore, the following hypothesis was formed:

H3: The higher the ownership concentration, the lower the cost of debt paid by the public listed companies in the three ASEAN countries.

When deciding whether or not to provide credit to a business, lenders look at the potential rate of return on their investments. Lenders assess default risk, a situation in which there is a high probability that the company will not be able to repay the loan (both the principle and the interest). The greater the likelihood that the debtor will not be able to pay back the loan, the higher the interest rate the creditor will demand (Damodaran, 2014). Additionally, the cost of debt may be affected by the ownership structure (Ebrahimi, 2022). Shareholders that maintain a concentrated stake will monitor the company with an objective eye in order to aid management in maximizing the company's value (Stepanova & Kopyrina, 2019). The concentration of ownership also reduces the incentives for managers to engage in opportunistic behavior, which may help reduce the investment risks that creditors are exposed to and, as a consequence, reduce the cost of the company's debt (Stepanova & Kopyrina, 2019).

Ownership concentration may stimulate advances in long-term value creation of sustainability practices (Aksoy et al., 2020; Lozano & Martínez-Ferrero, 2022). This may be accomplished by excellent governance processes, the nomination of directors, control procedures, and the establishment of good relationships with creditors, all of which can help to enhance a company's image (Aksoy et al., 2020; Gao et al., 2020; Martínez-Ferrero & Lozano, 2021). By adopting acts that assist the communities in which it works, a corporation may obtain legitimacy from stakeholders (Burlea & Popa, 2013). This may help the company's reputation by enhancing credit rating agencies' trust via good creditworthiness signals (Hao & Li, 2021). In creditworthiness assessments, higher credit ratings reflect a reduced default risk. A decreased default risk reduces borrowers' loan costs (Bhattacharya & Sharma, 2019; Hao & Li, 2021). A company's concentration of ownership and sustainability practices will lessen the risks faced by creditors, eventually lowering the set debt costs. Therefore, the following theory was formed:

H4: The higher the ownership concentration through sustainability practices, the lower the cost of debt paid by the companies.

3. RESEARCH DESIGN

3.1. Sample Selection and Data Collection

The companies listed in the non-financial sector of the Indonesia Stock Exchange, Bursa Malaysia, and Singapore Exchange between 2016 and 2020 were selected as the sample for this study. The financial sector was excluded due to special regulations that are different from other sectors, such as the Financial Services Authority Regulation (FSAR) No.55/POJK.03/2016 and the Financial Services Authority Circular Letter (FSACL) No.13/SEOJK.03/2017 concerning Governance Implementation for Commercial Banks. Out of these public listed companies, only companies that provided complete data for the 2015–2021 period and have a concentration of ownership above 20% were selected. Ownership above 20% will give investors significant influence over the investee such that it can have the power to participate in decisions regarding the investee's operations and finances. Table 1 presents the sample selection of this study.

The data collection method used in this study was based on content analysis, i.e., by studying literature data according to needs. The data sources used include financial reports, information from the Indonesia Stock Exchange, Bursa Malaysia, and Singapore Exchange websites, the companies' websites, and Datastream.

Table 1. Sample selection.

Criteria	2016	2017	2018	2019	2020
Registered companies on the Indonesian Stock Exchange, Bursa Malaysia, and Singapore Stock Exchange	1800	1864	1936	2002	2073
Finance companies	(136)	(140)	(146)	(149)	(155)
Companies with incomplete financial reports and sustainability practices	(1557)	(1617)	(1683)	(1746)	(1811)
Companies with an ownership concentration below 20%	(14)	(14)	(14)	(14)	(14)
Total available sample units	93	93	93	93	93

3.2. Research Variables and Operational Definitions

3.2.1. Dependent Variable

Based on a meta-analysis by Orlitzky, Schmidt, and Rynes (2003), the performance of sustainability practices is more correlated with accounting-based rather than market-based measurements (Eliwa et al., 2019; Gracia & Siregar, 2021; Orlitzky et al., 2003). Therefore, the dependent variable in this study is the cost of debt, an accounting-based measurement. Based on previous studies, the cost of debt was measured using accounting-based measurement by calculating the ratio of interest expense to the average debt held in the following year. The amount of debt in the financial statements only describes the company's status on the last day of the financial reporting period and does not describe changes in debt during the current period. Therefore, the average debt held for the current and prior periods (2016–2020) is better for the denominator in the calculation of the cost of debt (Ebrahimi, 2022).

3.2.2. Independent Variables

Ownership concentration represents the independent variable. With the increasing complexity of management, more control is needed for a greater shareholder size and more efficient decisions (Nogueira & Soares, 2021). Controlling shareholders can be actively involved in a company's business processes to produce quality products and enhance its reputation. Strict monitoring by the controlling shareholders can also improve company performance (Choi, 2018). Ownership concentration tends to reduce opportunistic behavior by managers, thereby lowering investment risk and ultimately lowering the cost of debt (Stepanova & Rabotinskiy, 2014). Ownership of more than 20% of the voting rights will give the investors significant influence based on IAS 28 Investment in Associates and Joint Ventures. Claessens (2016) also distinguished companies owned by the largest shareholders as those who have owners with controlling rights of more than 20%.

The Malaysian Companies Act 1965, Section 69D (1), requires companies to provide substantial shareholder disclosures with ownership of more than 5% of shares, either through direct or indirect control interest. The shareholders' information includes the name of the investing institutions. This disclosure can provide more information on which party has control over the company (Chu & Cheah, 2006). Therefore, this study uses the percentage of shares owned by the shareholders for Malaysian and Singaporean companies (Sraheen, Yunos, Smith, & Ismail, 2010). The concentration of ownership is measured by the proportion of the number of shares owned by the largest shareholders with more than 20% ownership (Chen et al., 2021; Jabbouri, Naili, Almustafa, & Jabbouri, 2022).

3.2.3. Intervening Variable

Based on the stakeholder theory, corporate stakeholders are not only limited to shareholders (Theodoulidis et al., 2017). When the creditor lends funds to a company, there is a risk that the company's may be unable to pay the debt, often referred to as default risk (Damodaran, 2014). Socially and environmentally responsible behavior can contribute positively to the reputation and value of a company, and these sustainability practices act as a positive signal for credit rating agencies to improve their trust in terms of creditworthiness. Creditworthiness is often used to represent a company's default risk (Bhattacharya & Sharma, 2019).

Higher credit ratings due to the existence of sustainability practices will reflect a company's ability to meet its financial obligations, reduce default risk, and ultimately lower the cost of debt (Bhattacharya & Sharma, 2019; Hao & Li, 2021). Thus, investors and stakeholders around the world have increasingly considered environmental, social and governance (ESG) in their business decisions (Feng & Wu, 2021).

Table 2 presents the ESG scores that are used to determine sustainability practices. The measurement used for sustainability practices is sustainability performance measured by the Refinitiv ESG Score (Gracia & Siregar, 2021). Refinitiv offers a sustainability database covering over 80% of global market capitalization with data up to 2002. Ratings from Refinitiv are available for more than 12,000 public and private companies.

In addition to the score, there is also the percentile rank score to facilitate understanding using The Refinitiv Business Classification (TRBC) benchmarks for all environmental and social categories.

Table 2. Environmental, social and governance (ESG) scores.

Score range	Grade	Description
0.0 <= score <= 0.083	D-	'D' indicates bad (poor) sustainability performance and insufficient transparency in reporting sustainability data publicly.
0.083 < score <= 0.167	D	
0.167 < score <= 0.250	D+	
0.250 < score <= 0.333	C-	'C' indicates satisfactory sustainability performance and a sufficient level of transparency in reporting sustainability data publicly.
0.333 < score <= 0.417	C	
0.417 < score <= 0.500	C+	
0.500 < score <= 0.583	B-	'B' indicates good sustainability performance and above average transparency in reporting sustainability data publicly.
0.583 < score <= 0.667	B	
0.667 < score <= 0.750	B+	
0.750 < score <= 0.833	A-	'A' indicates very good sustainability performance and a high level of transparency in reporting sustainability data publicly.
0.833 < score <= 0.917	A	
0.917 < score <= 1	A+	

The Refinitiv Sustainability Score was designed for performance, commitment, and effectiveness. A company's sustainability score is measured transparently and objectively, and the measurements cover ten major themes from sustainability practices with over 630 sustainability metrics. The score is based on the relative performance of sustainability factors of the corporate sector for environmental and social issues, and the country for governance. Sustainability data is collected by more than 700 highly trained content research analysts resulting in the world's largest collection of sustainability data operations (Refinitiv, 2022).

Refinitiv processes a range of publicly accessible information sources using local language skills and operating from several locations across the globe. The purpose is to give current, impartial, and all-encompassing coverage. Every measurement has gone through a rigorous procedure to ensure consistency and comparability across corporate boundaries. As a result, Refinitiv has answered all of the data point's inquiries, and the metrics are publicly accessible, informative, and transparent. It also gives a thorough assessment of the effect of business sustainability.

3.2.4. Control Variables

The control variables used in this study are company size, leverage, profitability, interest coverage, and growth opportunities. The period used is the same as the years for the dependent variable (2016–2020). Leverage was measured by the ratio of total debt to total assets (Aksoy et al., 2020; Gracia & Siregar, 2021; Swanpitak, Pan, & Suardi, 2020). Data on total debt and equity was obtained from each company's financial statements and Datastream for the 2017–2021 period.

Profitability was measured by return on assets (ROA), obtained by dividing the company's total net profit by total assets (Ebrahimi, 2022; Gracia & Siregar, 2021; Zhao, Qu, & Wang, 2023). Data on total net profit and total assets was obtained from Datastream and the companies' reports for 2017–2021. Interest coverage was measured by calculating the total operating profit before taxes and interest divided by the total interest on the debt (Eliwa et al., 2019; Raimo, Caragnano, Zito, Vitolla, & Mariani, 2021). Data on total operating profit after tax and interest and total interest for 2016–2021 was obtained from the companies' financial statements and Datastream. Growth opportunities were measured using income growth, i.e., by calculating the percentage increase or decrease in revenue from the previous year (Swanpitak et al., 2020; Zhao et al., 2023). Data on income was obtained from the companies' financial statements for 2016–2021 and Datastream.

3.3. Research Model

From the hypotheses and the variables used, the following are the models of the two structural equations used in this study:

i. $$ESGScore = \rho_{ESGScoreCONC} CONC_{i,t} + \varepsilon_1$$

ii. $$COD = \rho_{ESGScoreCONC} CONC_{i,t} + \rho_{CODCONC} CONC_{i,t} + \rho_{CODESGScore} ESGScore_{i,t} + \rho_{CODSIZE} SIZE_{i,t} + \rho_{CODLEV} LEV_{i,t} + \rho_{CODROA} ROA_{i,t} + \rho_{CODINTCOV} INTCOV_{i,t} + \rho_{CODGROWTH} GROWTH_{i,t} + \varepsilon_2$$

Where:

ρ: path coefficient.

COD: Cost of debt, measured by the ratio of the company's interest expense to the average debt.

ESGScore: Sustainability practices, measured by the Refinitiv ESG Score.

CONC: Ownership concentration, measured by the proportion of the number of shares held by the largest shareholder.

SIZE: Size of the company, measured by the natural logarithm of total assets.

LEV: Leverage, measured by the ratio of total debt to total equity.

ROA: Profitability, measured by return on assets.

INTCOV: Interest coverage, measured by calculating total operating profit before tax and interest divided by total interest on debt.

GROWTH: Growth opportunities, measured by the percentage of revenue growth.

ε: Residual factor.

4. RESULTS AND DISCUSSION

4.1. Descriptive Statistics

Table 3 presents the descriptive statistics of the variables in this study [cost of debt (COD), ownership concentration, and sustainability practices]. The results show that the mean ownership concentration for the three countries is more than 50% for Indonesia and Singapore and close to 50% for Malaysia. These figures imply that, on average, the Indonesian and Singaporean companies are subsidiaries of a parent company, whereas the Malaysian companies are associates of another company. However, these three countries are still lower in average ownership concentration compared to Thailand (59.9%) and the Middle East and North Africa (MENA) region (65.93%). The company with the lowest ownership concentration is Lippo Karawaci Tbk, which is in the property and real estate industry, with an equity percentage of 47.52% used to fund its assets. The industry has an average of 53% equity ownership, which is the second lowest equity percentage of all industries. HM Sampoerna Tbk has the highest equity percentage of 79.1%. It is from the non-cyclical consumer industry which has an average of 59%, the third highest equity percentage of all industries.

Table 3 also shows that Indonesia has a higher cost of debt than Malaysia and Singapore. However, Indonesia's cost of debt is still below the average of Thailand (6%), Europe (6%), and the ASEAN region (8%). The Indonesian company with the lowest COD is Indocement Tunggal Prakarsa Tbk (0.03%), and the company with the highest COD is Semen Indonesia (Persero) Tbk. Both companies are from the basic materials industry. On the other hand, Malaysia has a higher mean ESG score than Indonesia and Singapore. It also has higher minimum and maximum values. A mean of >0.50 shows that the average company in Malaysia has already implemented sustainability practices and is transparent regarding public reporting related to these practices.

Table 3. Descriptive statistics.

Country	Cost of debt (COD)				Ownership concentration (CONC)				Sustainability practices (ESG score)			
	Mean	Std.dev	Min.	Max.	Mean	Std.dev	Min.	Max.	Mean	Std.dev	Min.	Max.
Indonesia	0.035	0.023	0.000	0.100	0.585	0.160	0.102	0.925	0.455	0.198	0.082	0.849
Malaysia	0.026	0.015	0.000	0.083	0.481	0.151	0.128	0.781	0.524	0.153	0.103	0.894
Singapore	0.016	0.011	0.000	0.054	0.501	0.195	0.111	0.879	0.470	0.177	0.081	0.783

The maximum value (0.894) is in the excellent category. However, the lowest value of 0.102, is included in the poor category. The mean ESG scores of Indonesia, Malaysia, and Singapore are higher than the ASEAN region at 0.3841. However, it is lower than the European average of 0.661. In Malaysia, the lowest ESG score is for Berjaya Sports Toto Berhad, with a score of 0.102, and the highest is Nestlé (Malaysia) Berhad, with a score of 0.8940. Both companies are from the Consumer Products & Services industry, which a mean ESG score of 0.54. This industry is ranked sixth out of nine industries.

4.2. Measurement Model

Table 4 presents the convergent and reliability results. The results show a loading factor (LF) of 1.00 (>0.7) for all three variables and an average variance extracted (AVE) of more than 1.00 (>0.5) for all indicators of each latent variable. This result implies that the indicators are highly correlated. The Cronbach's alpha (α) and composite reliability (CR) values are greater than 1.00 for all latent variable indicators, implying high reliability.

Table 4. Convergent validity and reliability results.

Variable	Indicator	LF	C	AVE	α	CR
Ownership concentration	CONC	1.00	1.00	1.00	1.00	1.00
Sustainability practices	ESG score	1.00	1.00	1.00	1.00	1.00
Cost of debt	COD	1.00	1.00	1.00	1.00	1.00

This study then proceeded to perform discriminant validity, which is a must in any study that involves latent variables to ensure no multicollinearity issues (Ab Hamid, Sami, & Sidek, 2017). The discriminant validity was analyzed by contrasting the square root of each AVE from the diagonal with the correlation coefficients found off-diagonal for each construct in the relevant rows and columns. This analysis was done to determine whether the AVEs accurately represent the constructs in question. Table 5 presents the results of the discriminant validity, which show a cross-loading of less than 1 for all latent variables. Therefore, the results support the idea that there is discriminant validity between the constructs.

Table 5. Cross-loading results.

Variable	COD	GROWTH	INTCOV	LEV	CONC	ROA	ESG score	SIZE
COD	1							
GROWTH	0.046	1						
INTCOV	-0.212	-0.003	1					
LEV	0.296	-0.064	-0.112	1				
CONC	-0.200	0.027	0.086	-0.089	1			
ROA	-0.176	0.130	0.058	-0.147	0.327	1		
ESG score	-0.180	-0.081	-0.030	0.103	0.054	0.125	1	
SIZE	0.387	0.047	-0.030	0.038	0.236	0.099	-0.224	1

Subsequently, the heterotrait-monotrait (HTMT) correlation ratio was calculated. Table 6 presents the results, which show that compared to the cross-loading (0.00%) and Fornell–Larcker (20.82%) criteria, HTMT achieves greater specificity and sensitivity rates (97% to 99%). When the HTMT is utilized as a criterion, it is compared to a previously determined threshold. If the HTMT result is more than this threshold, it is feasible to conclude that the test's discriminant validity is insufficient. Several writers have proposed a cut-off point of 0.85.

The coefficient of determination analysis was performed next, which examines how differences in one variable can be explained by the differences in a second variable in predicting the outcome of an event. The results in Table 7 show that the R-squared for the cost of debt is 0.334, indicating a strong correlation between ownership concentration and the cost of debt. Therefore, 34.4% of the variation in ownership concentration could be explained by the variation

in the COD. However, the results also show a weak correlation between ownership concentration and sustainability practices (R-squared = 0.03, 4%).

Table 6. HTMT results.

HTMT								
Variable	**COD**	**GROWTH**	**INTCOV**	**LEV**	**CONC**	**ROA**	**ESG score**	**SIZE**
COD								
GROWTH	0.046							
INTCOV	0.212	0.003						
LEV	0.296	0.064	0.112					
CONC	0.200	0.027	0.086	0.089				
ROA	0.176	0.130	0.058	0.147	0.327			
ESG score	0.180	0.081	0.030	0.103	0.054	0.125		
SIZE	0.387	0.047	0.030	0.038	0.236	0.099	0.224	

Table 7. Coefficient determination results.

Variable	R-squared	Adjusted R-squared	Conclusion
Cost of debt	0.344	0.334	Strong
Sustainability practices	0.003	0.001	Weak

The magnitude of an effect reveals the importance of the relationship between variables or the differentiation between groups. It demonstrates the significance of a study's findings in terms of real-world applicability. When a study's impact size is substantial, it indicates that the discovery has great practical relevance. When the effect size is small, it shows that the discovery has limited practical use. Table 8 presents the effect size results showing that the effect size is small.

Table 8. Effect size f^2 results.

Variable	Cost of debt	Sustainability practices	Effect size
Ownership concentration	0.068	0.003	Small
Sustainability practices	0.011		Small
Growth opportunities	0.004		Small
Interest coverage	0.034		Small
Leverage	0.084		Small
Return on assets	0.011		Small

Table 9 shows that the cost of debt and sustainability practices have a Q^2 greater than 0, which means that it has predictive relevance. The Q^2 of the cost of debt is 0.334 (>0.15), indicating that it has moderate predictive relevance. Sustainability practices have a Q^2 of 0.001 (<0.002), which means that the predictive relevance is weak.

Table 9. Predictive relevance results.

Variable	Q^2	Predictive relevance
Cost of debt	0.334	Moderate
Sustainability practices	0.001	Weak

4.3. Hypothesis Testing

Table 10 contains the results of the hypothesis testing, which show that ownership concentration has no significant effect on sustainability practices. This outcome can be caused by several things. The first is the difference in business relationships between investors and the companies that will make a difference to their capabilities, incentives, and goals in their involvement in corporate governance. Second, there may be a non-linear relationship between ownership concentration and sustainability practices, where, at some level, there is only a positive influence

of ownership concentration on sustainability practices. It was found that governance and social issues have not been a major concern for investors and are considered non-priority objectives (Martínez-Ferrero & Lozano, 2021). Third, it can be caused by differences in short-term or long-term ownership. Short-term institutional ownership tends not to have a significant effect on corporate social responsibilities. Companies tend to face short-term biases due to poor manager incentive structures and career problems that are more focused on maximizing profits (Erhemjamts & Huang, 2019).

Table 10. Hypothesis testing.

Variable	β	Mean	Standard deviation	T-statistic	P value	Decision	Conclusion
CONC → ESGScore	0.054	0.056	0.045	1.221	0.111	Accept H1	Insignificant
ESGScore → COD	-0.088	-0.087	0.041	2.152	0.016	Reject H2	Significant
CONC → COD	-0.230	-0.231	0.047	4.891	0.000	Reject H3	Significant
CONC → ESGScore → COD	-0.005	-0.005	0.005	1	0.159	Accept H4	Insignificant

Table 10 also shows that sustainability practices negatively affect the cost of debt. The results of this study are in line with Bhattacharya and Sharma (2019); Eliwa et al. (2019) and Hao and Li (2021). Studies on 15 countries in Europe also found that the performance of sustainability practices has a significant negative effect on the cost of debt. Lending institutions can encourage companies to improve their sustainability practices by including them in their lending decisions so that their creditworthiness also increases. Corporate social responsibility performance contributes strongly to financial performance (Bhattacharya & Sharma, 2019; Weber et al., 2010). Sustainability practices are seen to improve a company's reputation, which ultimately increases the trust of credit rating agencies or banks regarding credit. Companies will thus have a lower cost of debt because the increased creditworthiness reflects a lower default risk (Bhattacharya & Sharma, 2019; Eliwa et al., 2019; Hao & Li, 2021). In China, corporate social reporting can also be a mechanism to reduce the cost of debt by conveying social development and sustainability commitments to creditors (Yeh, Lin, Wang, & Wu, 2020). Financial institutions in Indonesia, Malaysia, and Singapore have included sustainability practices in their credit assessment criteria, as can be seen from their higher sustainability performance and lower cost of debt. Ownership concentration has a significant negative influence on the cost of debt.The results of this study are in line with Sánchez-Ballesta and García-Meca (2011) and Swanpitak et al. (2020). In the presence of concentrated ownership, conflicts with creditors can be mitigated. Management's policies can be monitored without biased views by shareholders with voting rights. Shareholders will direct the company so that it becomes more effective, which ultimately maximizes the value of the company. Thus, the concentration of ownership can reduce moral hazard and opportunistic behavior among managers so that investment risk decreases, ultimately lowering the cost of debt. However, ownership concentration does not have a significant effect on the cost of debt through the application of sustainability practices. The results of this study are in line with Martíne-Ferrero and Lozano (2021) and Erhemjamts and Huang (2019). There are differences in the relationship between investors and companies that make incentives, goals, and capabilities in corporate governance different. First, company decisions are monitored differently. Owners can opt to postpone corporate social responsibility engagement to increase profits by saving costs now (Martínez-Ferrero & Lozano, 2021). Second, the relationship between ownership concentration and sustainability practices is not linear where there is a threshold of ownership concentration that can affect sustainability practices. Thus, ownership below the threshold does not influence sustainability practices (Martínez-Ferrero & Lozano, 2021).

Third is the difference between long-term and short-term ownership, as long-term ownership positively affects sustainability practices. In contrast, short-term ownership, which prefers to maximize profits, does not consider sustainability practices as a cost that needs to be minimized. Thus, short-term ownership has no effect on sustainability practices (Erhemjamts & Huang, 2019). Thus, ownership concentration through the application of sustainability practices does not significantly affect the cost of debt.

5. CONCLUSION

This study examined the effect of ownership concentration on sustainability practices and the cost of debt. Subsequently, it also examined whether sustainability practices influence the cost of debt of public listed companies in three selected ASEAN countries. Using content analysis on 93 public listed companies in Singapore, Malaysia, and Indonesia, this study shows that ownership concentration has no significant effect on sustainability practices. This may be due to the differences in business relationships between investors and companies. There is a non-linear relationship between ownership concentration and sustainability practices where there is a level of concentration that limits the presence of significant influence. Differences between long- and short-term ownership result in different influences. In addition, this study shows that there is a significant negative effect of sustainability practices on the cost of debt. Hence, the higher the sustainability practices, the lower the cost of debt of the public listed companies. This finding is in line with previous studies, where the banks and financial institutions in Indonesia, Malaysia, and Singapore have applied sustainability practices to credit decisions.

Ownership concentration has a significant negative effect on the cost of debt. This finding is in line with the outcome showing that concentrated ownership can lower a company's cost of debt. Concentrated ownership can monitor a company without bias, making firms more efficient and reducing the opportunistic behavior of managers and moral hazards that reduce investment risk. Finally, there is no significant effect of ownership concentration on the cost of debt through the application of sustainability practices. This outcome is possible due to the differences in the role of investors, the non-linear relationship between ownership and sustainability practices, and long- and short-term ownership.

This study is not without limitations. First, there is a limitation in the amount of data available. Sustainability performance data from Refinitiv's ESG Score was unavailable, limiting the number of companies in the sample. This study could not analyze the impact of each free variable on its bound variables by industry due to the small sample size. Thus, it could not accommodate the differences in business processes of each industry that could affect the influence exerted from free variables on the variables tied to this study.

This study provides new insights into the effect of sustainability practices and their impact on the cost of debt in developing countries, especially Indonesia, Malaysia, and Singapore. Creditors can also reconsider sustainability performance as a criterion in credit assessment that can encourage companies, namely debtors, to become more socially and environmentally responsible, similar to what the banks in developed countries in Europe have done. This study shows that sustainability practices have a positive effect on the cost of debt. With these results, policymakers can formulate a legal framework that can encourage sustainability practices in communities and companies in the ASEAN region. The framework could be in the form of regulations that require sustainability practices to be applied by companies to obtain funds from financial institutions. Thus, banks in the ASEAN region could include these regulations as in developed countries in Europe, and these mandatory regulations could reduce the cost of debt.

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