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Determining Internal and External Factors That Affect Company Value and Cost of Debt

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Abstract

Amid increasing investor expectations regarding the implementation of Environmental, Social, and Governance (ESG) principles, this study aims to present empirical evidence on the determinants of ESG practices encompassing strategic orientation, risk-taking, and firm life cycle, and their economic consequences for firm value and the cost of debt. Using ESG score data from the Refinitiv Eikon database for public companies in ASEAN and Western Europe from 2013 to 2023, this study adopts a two-stage econometric approach to test these relationships. Initial analysis using a static panel model (fixed effects) indicated that ESG practices are negatively correlated with firm value and positively correlated with the cost of debt. However, static models may have potential bias because they ignore the inherent endogeneity and data persistence issues in financial and ESG variables. This study provides alternative methods to address potential bias by applying a methodology that can handle potential endogeneity and data persistence issues: dynamic panel data analysis using the General Method of Moments (GMM). The GMM model yielded fundamentally different findings: after controlling for endogeneity and data persistence, the previously significant causal relationships between the strategic determinants, ESG practices, firm value (measured by Tobin's Q), and the cost of debt were found to be insignificant. Conversely, the main finding from the GMM model is the existence of a very strong and dominant data persistence effect, indicating that historical performance is a much stronger predictor of current performance. A crucial implication of this research is that the link between ESG and financial performance is likely to be more complex and indirect, highlighting the importance of selecting the appropriate econometric method to avoid erroneous and potentially biased conclusions in ESG research.

Keywords: ESG performance, strategic orientation, risk-taking, ESG disclosure, ESG practices, corporate lifecycle.

1. Introduction

The strategic importance of Environmental, Social, and Governance practices has grown exponentially as a central factor in international investment and corporate policy (Raimo et al., 2020). Stakeholders such as investors, regulators, and creditors are exerting increasing pressure

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on firms to adopt sustainable practices and provide detailed disclosures regarding their performance. This trend is particularly pronounced in economically significant regions, such as the Association of Southeast Asian Nations (ASEAN) (Li et al., 2018), where corporate transparency and sustainability are key determinants of competitive advantages.

The existing literature provides a strong theoretical foundation for examining the drivers and outcomes of ESG adoption. Resource-Based Theory (Wernerfelt, 1984) posits that a firm's internal resources and capabilities, shaped by its strategic choices, risk appetite, and stage in its corporate life cycle, determine its ability to implement ESG initiatives effectively (Galbreath, 2010; Hasan & Habib, 2017; Younas & Zafar, 2019; Yuan et al., 2020). Concurrently, Agency (Jensen & Meckling, 1976) and Signalling (Spence, 2002) theories provide a framework for understanding the expected economic consequences. From this perspective, strong ESG performance acts as a positive signal to the market, reducing information asymmetry and agency costs, which should theoretically translate into higher company value and lower debt costs.

Despite this theoretical foundation, there are significant research gaps. While studies such as Setiarini et al., (2023) have explored these determinants in ASEAN, a comparative analysis against a developed region such as Western Europe, which would control for different regulatory and market maturity levels, is absent from the literature. Few studies have simultaneously investigated this specific constellation of determinants (strategic orientation, risk-taking, and life cycle) and consequences (company value and debt cost) within a single integrated model. This study aims to fill these gaps by providing a methodologically rigorous analysis that offers new perspectives on the ESG performance nexus.

Based on this background, this study addresses two primary research questions. The first question examines how strategic orientation, risk-taking, and the corporate life cycle influence a firm's ESG performance in ASEAN and Western Europe. This query seeks to understand the dynamics between strategic business decisions and ESG outcomes across two distinct regions with diverse economic, social and regulatory environments. The second research question investigates the subsequent impact of ESG performance on company value and the cost of debt in these areas. It explores the real-world implications of ESG practices, particularly how they affect financial metrics, such as firm valuation and borrowing costs. This study aims to provide insights into the complex relationship between strategic management practices, ESG performance, and financial outcomes in different geographic contexts.

2. Method

This section details the empirical framework designed to rigorously test the study’s hypotheses. It covers the sample selection criteria, the operationalisation of all key variables, and the advanced econometric models employed to ensure the findings’ validity and reliability. The analytical approach progresses from initial static models to a more robust dynamic framework that accounts for the complex nature of the data.

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2.1. Sample and Data Collection

This study utilises an unbalanced panel dataset of publicly listed companies from ASEAN member countries and Western European nations from 2013 to 2023. A purposive sampling methodology was employed, guided by specific selection criteria to ensure relevant and comprehensive data. The selected companies were publicly listed in the ASEAN or Western European regions. Second, they should have an ESG Score available in the Refinitiv Eikon database, which serves as a critical data source for ESG performance evaluation. Finally, the selected companies must have complete data for all research variables throughout the specified period. This facilitates a robust analysis of the interplay between strategic orientation, risk-taking behaviour, corporate life cycles, and their impact on ESG performance in different geographical contexts. The primary data source for company-level information, including ESG scores, financial ratios, and control variables, is the Refinitiv Eikon Database. Macroeconomic data, specifically GDP growth, were obtained from the World Bank.

2.2. Variable Measurement

For ESG practices, the primary measure of a firm's commitment to sustainability is the ESG Score from Refinitiv Eikon. This composite score evaluates a company's environmental, social, and governance (ESG) performance. The analysis also separately examines its three constituent pillars: environmental (E), social (S), and governance (G) score (Gracia & Siregar, 2021). To measure strategic orientation, this study follows the methodology of Gani & Jermias (2011), and firms are classified as prospectors or defenders. This classification is based on three financial ratios: premium price capability (gross margin/revenue), asset utilisation efficiency (revenue/assets), and capital expenditures. Each firm's ratios are categorised as "high" or "low" relative to their industry-year median. A firm is classified as a prospector if it exhibits high premium-price capability, alongside low asset utilisation and low capital expenditure, reflecting a focus on innovation. Conversely, a firm is classified as a defender if it shows low premium price capability, high asset utilization, and high capital expenditure, indicating a focus on efficiency.

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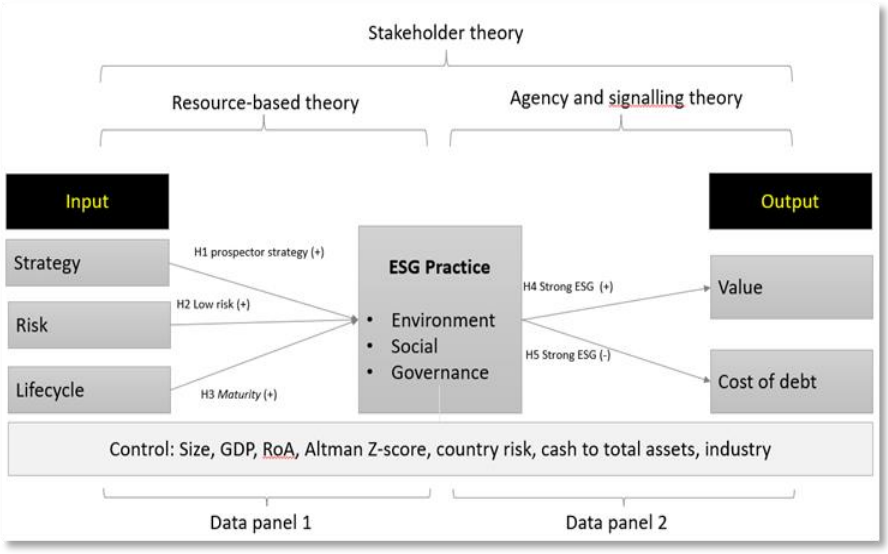

Figure 1. Research Model

Corporate risk-taking is measured by the ratio of capital expenditure to total asset. This variable directly captures the management decisions regarding investment risk (Harjoto & Laksmana, 2018). A company's life cycle stage is proxied by the ratio of retained earnings to its total assets. A higher ratio indicates a more mature company (DeAngelo et al., 2006). Company value is measured using Tobin's Q, which is calculated as a company's market value divided by its assets' replacement cost (Atan et al., 2018). This reflects the market's valuation of a firm's tangible and intangible assets. The cost of debt is measured and available in the Refinitiv Eikon database, which is defined as the company's interest expense divided by its average net debt (Eliwa et al., 2021). Control Variables To isolate the effects of the primary variables, the models include several control variables known to influence financial outcomes, such as company size (natural log of total assets), GDP, profitability (Return on Assets/ROA), financial risk (Altman Z-score), country risk, cash to total assets, and GICS industry code (Bhuiyan & Nguyen, 2019; Fonseka et al., 2019).

2.3. Econometric Models

This study employed a sequential analytical strategy to test the hypotheses. The initial model used to test the determinants of ESG performance is specified as follows:

$$ESG\_Score_{i,t} = \beta_0 + \beta_1 Strategy_{i,t} + \beta_2 Risk_{i,t} + \beta_3 Life\_Cycle_{i,t} + \Sigma Control\_Variables_{i,t} + \varepsilon_{i,t}$$

The analysis proceeds in two stages, beginning with a Static Panel Analysis that involves an initial investigation using a static panel fixed effects (FE) model. This approach was selected over other static models because statistical tests, such as the Hausman test, confirmed its appropriateness for the dataset. Following this, the Dynamic Panel Analysis addresses significant issues in the FE model related to endogeneity, autocorrelation, and heteroskedasticity, which are

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revealed through diagnostic tests. This study employs a more robust dynamic panel General Method of Moments (GMM) model to address these critical econometric challenges. The GMM framework is specifically designed to produce consistent and unbiased estimates amidst such issues, utilising lagged variables as instruments and accounting for data persistence over time, as follows:

Table 1. Variable operationalization for non-control variables

#	Variable	Code	Operasionalization
1	Strategy	STRA	Two-step process: Calculate three ratios: • PPC (Premium Price Capability): Gross margin / total revenue • AUE (Asset Utilization Efficiency): Total revenue / total assets • CAPEX: Total revenue / capital expenditure Classify companies based on high/low values relative to the industry/year median: • Prospector: High PPC, Low AUE, and Low CAPEX. • • Defender: Low PPC, High AUE, and High CAPEX.
2	Risk	RISK	Measured as the ratio of capital expenditures to total assets.
3	Lifecyle	RETA	Measured as the ratio of retained earnings to total assets. A higher ratio indicates a more mature firm.
4	ESG Score	ESGX EPSX SPSX GPSX	The Composite ESG Score from the Refinitiv Eikon database, consisting of: • Aggregate "ESG" score, • "E" Score (Environmental): Measures resource use, emissions, and innovation, • "S" Score (Social): Assesses performance related to the workforce, human rights, community, and product responsibility, • "G" Score (Governance): Evaluates management effectiveness, shareholder rights, and CSR strategy. Scores range from 0 to 100.
5	Value	TOBI	Measured using Tobin's Q, calculated using accounting-based data from Refinitiv Eikon, formulated as (market value of equity + market value of liabilities) / total assets.
6	Cost of debt	WACC	Calculated using accounting-based data from Refinitiv Eikon.

Table 1 provides the variable operationalisation for the non-control variables. Most of the data can be extracted directly from Refinitiv Eikon, and some need to be calculated using a combination of several data fields from Refinitiv Eikon.

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Table 2. Variable operationalization for control variables

#	Variabel	Code	Operasionalization
1	Size	LNTA	The natural logarithm of a company's total assets.
2	GDP	GDPX	Gross Domestic Product (GDP) growth as reported by the World Bank.
3	Return on assets	ROAX	Return on Assets, calculated as Earnings Before Interest and Taxes (EBIT) / Total Assets.
4	Altman Z-score	AZSC	The Altman Z-Score for bankruptcy risk, formulated as: 1.2 (net working capital / total assets) + 1.4 (retained earnings / total assets) + 3.3 (EBIT / total assets) + 0.65 (market value of equity / book value of total liabilities) + 0.99 (sales / total assets).
5	Country risk	CRPX	Country risk premium, reflecting the additional risk inherent in a specific country's market. Data sourced from the Damodaran database.
6	PPE/total assets	PPEA	The ratio of Net PPE (Property, Plant, and Equipment) to Total Assets.
7	Cash/total assets	CATA	The ratio of Cash to Total Assets.
8	GICS Industry	GICS	A dummy variable where 1 indicates a "sensitive" industry (Energy, Materials, Utilities) and 0 indicates a non-sensitive industry.

Table 2 provides the variable operationalisation of the control variables. Majority of data can be extracted directly from Refinitiv Eikon, some needs to be calculated using combination of several data field from Refinitiv Eikon. Data for GDP are taken from world bank and data for cuntry risk are taken from Damodaran database

Table 3. Data panel 1

#	Function	Run 1.1	Run 1.2	Run 1.3	Run 1.4
1	Dependent	ESG Score	Enviromental Pillar Score	Social Pillar Score	Governance Pillar Score
2	Independent	Strategy	Strategy	Strategy	Strategy
3	Independent	Risk	Risk	Risk	Risk
4	Independent	Lifecyle	Lifecyle	Lifecyle	Lifecyle
5	Independent	Continent	Continent	Continent	Continent
6	Control	Size	Size	Size	Size
7	Control	GDP	GDP	GDP	GDP
8	Control	Return on assets	Return on assets	Return on assets	Return on assets
9	Control	Altman Z-score	Altman Z-score	Altman Z-score	Altman Z-score
10	Control	Country risk	Country risk	Country risk	Country risk
11	Control	PPE/total assets	PPE/total assets	PPE/total assets	PPE/total assets
12	Control	Cash/total assets	Cash/total assets	Cash/total assets	Cash/total assets
13	Control	GICS industry	GICS industry	GICS industry	GICS industry

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Table 3 explains how Data Panel 1 is formed. In the first run (Run 1.1), this study used the composite ESG score as the dependent variable, followed by Runs 1.2 to 1.4, where environmental, social, and governance scores were used for each run. This helps analyse whether certain pillars have unique characteristics.

Table 4. Data panel 2a – Value (TobinsQ)

#	Function	Run 2.1	Run 2.2	Run 2.3	Run 2.4
1	Dependent	TobinsQ	TobinsQ	TobinsQ	TobinsQ
2	Independent	ESG Score	-	-	-
3	Independent	-	Enviromental Pillar Score	-	-
4	Independent	-	-	Social Pillar Score	-
5	Independent	-	-	-	Governance Pillar Score
6	Control	Continent	Continent	Continent	Continent
7	Control	Size	Size	Size	Size
8	Control	GDP	GDP	GDP	GDP
9	Control	Return on assets	Return on assets	Return on assets	Return on assets
10	Control	Altman Z-score	Altman Z-score	Altman Z-score	Altman Z-score
11	Control	Country risk	Country risk	Country risk	Country risk
12	Control	PPE/total assets	PPE/total assets	PPE/total assets	PPE/total assets
13	Control	Cash/total assets	Cash/total assets	Cash/total assets	Cash/total assets
14	Control	GICS industry	GICS industry	GICS industry	GICS industry

Table 4 explains how data panel 2a is formed. In the first run (Run 2.1), this study used the composite ESG score as the independent variable, followed by Runs 2.2 to 2.3, where it used environmental, social, and governance scores. It helps to analyze whether there are certain pillar that has unique characteristics.

Table 5. Data panel 2b – WACC cost of debt

#	Function	Run 3.1	Run 3.2	Run 3.3	Run 3.4
1	Dependent	WACC – cost of debt	WACC – cost of debt	WACC – cost of debt	WACC – cost of debt
2	Independent	ESG Score	-	-	-
3	Independent	-	Enviromental Pillar Score	-	-
4	Independent	-	-	Social Pillar Score	-
5	Independent	-	-	-	Governance Pillar Score
6	Control	Continent	Continent	Continent	Continent
7	Control	Size	Size	Size	Size

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8	Control	GDP	GDP	GDP	GDP
9	Control	Return on assets	Return on assets	Return on assets	Return on assets
10	Control	Altman Z-score	Altman Z-score	Altman Z-score	Altman Z-score
11	Control	Country risk	Country risk	Country risk	Country risk
12	Control	PPE/total assets	PPE/total assets	PPE/total assets	PPE/total assets
13	Control	Cash/total assets	Cash/total assets	Cash/total assets	Cash/total assets
14	Control	GICS industry	GICS industry	GICS industry	GICS industry

Table 5 explains how data panel 2b is formed. In the first run (Run 3.1), this study used the composite ESG score as the independent variable, followed by Runs 3.2 to 3.4, where Environmental, Social, and Governance scores were used. It helps to analyze whether there are certain pillar that has unique characteristics.

Based on the theoretical framework and prior empirical evidence discussed in the preceding sections, this study formulates several hypotheses for empirical testing. These hypotheses examine the interrelationships among strategic orientation, corporate risk behaviour, firm life cycle, and environmental, social, and governance practices, as well as their implications for firm value and the cost of debt. Accordingly, the following five hypotheses are proposed and tested.

H1: Prospector strategy has a strong positive influence on ESG practices.

H2: Lower risk-taking has a strong positive influence on ESG practices.

H3: A more mature corporate life cycle has a strong positive influence on ESG practices.

H4: ESG practices have a strong positive influence on company value.

H5: ESG practices have a strong negative influence on the cost of debt.

3. Results and Discussion

This section presents the empirical findings of the data analysis. The analysis begins with descriptive statistics and correlation analysis to provide a foundational understanding of the data characteristics. This is followed by a comparative presentation of the results from the static (fixed effects) and dynamic (GMM) regression models, which form the basis for testing the study's hypotheses.

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3.1. Descriptive Statistics and Correlation Analysis

Table 6. Descriptive statistics output.

#	Description	All continent		Asia		Europe	
		n	%	n	%	n	%
1	Industry						
A	Non-sensitive	6,344	80.00	2,596	75.60	3,748	83.36
B	Sensitive	1,586	20.00	838	24.40	748	16.64
2	Continent						
A	Asia	3,434	43.30				
B	Europe	4,496	56.70				
3	Strategy						
A	Defender	4,489	56.61	1,781	51.86	2,708	60.23
B	Prospector	3,441	43.39	1,653	48.14	1,788	38.77

Table 6 provides a snapshot of the sample which comprises 7,930 firm-year observations, with a majority (56.7%) from Western Europe. European firms were more likely to adopt a "defender" strategy, while Asian firms showed a higher proportion of "prospector" strategies. Notably, companies in Asia, particularly Indonesia, were more concentrated in industries classified as "sensitive" from an environmental and social perspective.

Table 7. Correlation analysis between variables (darker blue/red: more positive/negative correlation).

ALL COUNTRY
Korelasi (Koefisien)

	ESGX	EPSX	SPSX	GPSX	WACC	CATA	PPEA	RISK	TOBI	LNTA	ROAX	RETA	AZSC	GDPX	CRPX
ESGX	1.000	0.873	0.910	0.708	-0.143	-0.138	-0.029	0.022	0.003	0.570	0.099	0.042	-0.082	-0.172	-0.110
EPSX	0.873	1.000	0.759	0.414	-0.163	-0.157	-0.013	0.009	-0.057	0.594	0.084	0.066	-0.132	-0.199	-0.153
SPSX	0.910	0.759	1.000	0.472	-0.148	-0.115	-0.039	0.018	0.028	0.520	0.106	0.058	-0.052	-0.185	-0.091
GPSX	0.708	0.414	0.472	1.000	-0.024	-0.079	-0.019	0.010	0.016	0.293	0.057	-0.010	-0.026	-0.016	-0.013
WACC	-0.143	-0.163	-0.148	-0.024	1.000	0.006	0.131	0.014	-0.182	-0.196	-0.214	-0.234	-0.207	0.300	0.374
CATA	-0.138	-0.157	-0.115	-0.079	0.006	1.000	-0.045	-0.007	0.114	-0.255	0.036	-0.016	0.154	0.046	0.081
PPEA	-0.029	-0.013	-0.039	-0.019	0.131	-0.045	1.000	0.511	0.028	-0.040	0.083	0.045	0.029	0.052	0.244
RISK	0.022	0.009	0.018	0.010	0.014	-0.007	0.511	1.000	0.188	-0.029	0.204	0.085	0.144	-0.036	0.081
TOBI	0.003	-0.057	0.028	0.016	-0.182	0.114	0.028	0.188	1.000	-0.168	0.413	0.120	0.756	-0.025	-0.003
LNTA	0.570	0.594	0.520	0.293	-0.196	-0.255	-0.040	-0.029	-0.168	1.000	0.030	0.080	-0.268	-0.195	-0.205
ROAX	0.099	0.084	0.106	0.057	-0.214	0.036	0.083	0.204	0.413	0.030	1.000	0.457	0.501	0.046	0.066
RETA	0.042	0.066	0.058	-0.010	-0.234	-0.016	0.045	0.085	0.120	0.080	0.457	1.000	0.434	0.000	-0.018
AZSC	-0.082	-0.132	-0.052	-0.026	-0.207	0.154	0.029	0.144	0.756	-0.268	0.501	0.434	1.000	0.047	0.052
GDPX	-0.172	-0.199	-0.185	0.016	0.300	0.046	0.052	-0.036	-0.025	-0.195	0.046	0.000	0.047	1.000	0.367
CRPX	-0.110	-0.153	-0.091	-0.013	0.374	0.081	0.244	0.081	-0.003	-0.205	0.066	-0.018	0.052	0.367	1.000

Table 7 provides a correlation analysis that reveals a strong positive correlation between the composite ESG score and its three pillars (Environmental, Social, and Governance), with coefficients often exceeding 0.8. This indicates the potential for multicollinearity, justifying the

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analytical decision to test each pillar separately in subsequent regression models to avoid biased estimates. Tables 2 and 3 summarise the results.

Table 8. Correlation strength analysis between variables (brown: no significant correlation (P> 0.05).

Korelasi (Significansi, pvalue)

	ESGX	EPSX	SPSX	GPSX	WACC	CATA	PPEA	RISK	TOBI	LNTA	ROAX	RETA	AZSC	GDPX	CRPX
ESGX		0.000	0.000	0.000	0.000	0.000	0.009	0.049	0.762	0.000	0.000	0.000	0.000	0.000	0.000
EPSX	0.000		0.000	0.000	0.000	0.000	0.254	0.417	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SPSX	0.000	0.000		0.000	0.000	0.000	0.000	0.114	0.013	0.000	0.000	0.000	0.000	0.000	0.000
GPSX	0.000	0.000	0.000		0.033	0.000	0.086	0.379	0.158	0.000	0.000	0.395	0.019	0.153	0.264
WACC	0.000	0.000	0.000	0.033		0.576	0.000	0.208	0.000	0.000	0.000	0.000	0.000	0.000	0.000
CATA	0.000	0.000	0.000	0.000	0.576		0.000	0.561	0.000	0.000	0.001	0.166	0.000	0.000	0.000
PPEA	0.009	0.254	0.000	0.086	0.000	0.000		0.000	0.014	0.000	0.000	0.000	0.009	0.000	0.000
RISK	0.049	0.417	0.114	0.379	0.208	0.561	0.000		0.000	0.010	0.000	0.000	0.000	0.001	0.000
TOBI	0.762	0.000	0.013	0.158	0.000	0.000	0.014	0.000		0.000	0.000	0.000	0.000	0.029	0.768
LNTA	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.010	0.000		0.007	0.000	0.000	0.000	0.000
ROAX	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.007		0.000	0.000	0.000	0.000
RETA	0.000	0.000	0.000	0.395	0.000	0.166	0.000	0.000	0.000	0.000	0.000		0.000	0.970	0.112
AZSC	0.000	0.000	0.000	0.019	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000		0.000	0.000
GDPX	0.000	0.000	0.000	0.153	0.000	0.000	0.000	0.001	0.029	0.000	0.000	0.970	0.000		0.000
CRPX	0.000	0.000	0.000	0.264	0.000	0.000	0.000	0.000	0.768	0.000	0.000	0.112	0.000	0.000	

Table 8 provides supporting analysis for Table 7. The relationships between variables that are coloured with brown shades represent non-significant correlations.

3.2. Static Panel Model (Fixed Effect) Results

The initial fixed effects (FE) regression analysis produced several statistically significant results. For instance, a defensive strategy and higher risk-taking are associated with lower ESG scores. Furthermore, higher ESG scores are linked to lower company value (Tobin's Q). The summary of the results is presented in Table 4.

Table 9. Regression output from the data panel fixed effects.

	MODEL 1 Fixed Effect ESGX	MODEL 2 Fixed Effect EPSX	MODEL 3 Fixed Effect SPSX	MODEL 4 Fixed Effect GPSX	MODEL 5.1 Fixed Effect TOBI	MODEL 5.2 Fixed Effect TOBI	MODEL 5.3 Fixed Effect TOBI	MODEL 5.4 Fixed Effect TOBI	MODEL 6.1 Fixed Effect WACC	MODEL 6.2 Fixed Effect WACC	MODEL 6.3 Fixed Effect WACC	MODEL 6.4 Fixed Effect WACC
(Intercept)												
p-value												
STRA:Prospector	-1.620	-1.943	-1.664	-1.524								
p-value	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(0,003)*								
RISK	-38.721	-46.438	-32.777	-37.941								
p-value	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*								
RETA	1.432	3.526	1.010	0.220								
p-value	*(0,210)*	*(0,021)*	*(0,477)*	*(0,890)*								
CONTINENT:Europe												
p-value												
ESGX					-0.004				0.0003101			
p-value					*(<0,001)*				*(<0,001)*			
EPSX						-0.002				0.0002270		
p-value						*(<0,001)*				*(<0,001)*		
SPSX							-0.003				0.0002036	
p-value							*(<0,001)*				*(<0,001)*	
GPSX								-0.001				0.0001116
p-value								*(0,014)*				*(<0,001)*
LNTA	13.134	15.035	12.901	11.351	-0.166	-0.181	-0.176	-0.204	0.003	0.004	0.004	0.006
p-value	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*
GDPX	6.111	2.382	1.558	14.992	-0.074	-0.092	-0.093	-0.079	0.049	0.050	0.050	0.049
p-value	*(0,138)*	*(0,665)*	*(0,761)*	*(0,009)*	*(0,752)*	*-0,693*	*(0,690)*	*(0,734)*	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*
ROAX	-10.040	-10.200	-11.531	-5.907	-0.235	-0.216	-0.229	-0.195	0.003	0.002	0.002	0.001
p-value	*(<0,001)*	*(0,008)*	*(0,001)*	*(0,143)*	*(0,144)*	*(0,179)*	*(0,154)*	*(0,225)*	*(0,519)*	*(0,639)*	*(0,648)*	*(0,896)*
AZSC	-0.176	-0.400	-0.122	-0.116	0.316	0.316	0.317	0.317	-0.001	-0.001	-0.001	-0.001
p-value	*(0,013)*	*(<0,001)*	*(0,168)*	*(0,239)*	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*
CRPX	42.106	71.434	0.763	48.820	-8.990	-8.985	-9.152	-9.105	0.303	0.301	0.313	0.309
p-value	*(0,542)*	*(0,439)*	*(0,993)*	*(0,611)*	*(0,021)*	*(0,022)*	*(0,019)*	*(0,020)*	*(0,004)*	*(0,004)*	*(0,003)*	*(0,003)*
PPEA	7.685	7.588	4.529	11.153	0.675	0.666	0.663	0.665	-0.004	-0.004	-0.003	-0.004
p-value	*(<0,001)*	*(0,006)*	*(0,076)*	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(0,191)*	*(0,243)*	*(0,297)*	*(0,249)*
CATA	-0.441	-0.158	2.971	-8.408	0.102	0.104	0.114	0.093	-0.022	-0.022	-0.023	-0.022
p-value	*(0,873)*	*(0,966)*	*(0,384)*	*(0,028)*	*(0,510)*	*(0,506)*	*(0,465)*	*(0,551)*	*(<0,001)*	*(<0,001)*	*(<0,001)*	*(<0,001)*
INDUSTRY:Sensitive												
p-value												
Num of Obs (n)	7,930	7,930	7,930	7,930	7,930	7,930	7,930	7,930	7,930	7,930	7,930	7,930
Adj Rsquared	0.02	0.06	0.09	0.13	0.32	0.32	0.46	0.46	0.10	0.10	0.10	0.12
Within Rsquared	0.16	0.13	0.10	0.07	0.56	0.55	0.56	0.55	0.10	0.09	0.09	0.08
AIC	54,398	58,992	57,815	59,610	8,845	8,858	8,843	8,877	48,638	48,630	48,581	48,499
BIC	54,475	59,069	57,891	59,686	8,907	8,920	8,906	8,940	48,575	48,568	48,518	48,436
RMSE	7.46	9.97	9.25	10.36	0.42	0.42	0.42	0.42	0.01	0.01	0.01	0.01

This indicates that, contrary to Hypothesis 4, higher ESG practices are statistically associated with lower company value (measured by TOBI). This differs from descriptive statistics, which may show higher average values for companies with strong ESG performance. This contrast may arise because the fixed effects model captures year-to-year changes within the same company, highlighting how increased ESG efforts can lead to short-term implementation costs that the market perceives as a burden, thus slightly reducing company value.

3.3. Dynamic Panel Model (GMM) Results

The dynamic panel GMM models serve as additional analyses in this study. The validity of these models was first established using a series of diagnostic tests. The **Wald test** confirmed the overall significance of each model, the **Sargan test** validated the instruments used to address endogeneity, and the **AR (2) test** confirmed the absence of second-order autocorrelation in the residuals. The summary results are presented in Table 5.

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Table 10. Regression output from the data panel GMM.

General Method of Moment Model												
	Model 1	Model 2	Model 3	Model 4	Model 5.1	Model 5.2	Model 5.3	Model 5.4	Model 6.1	Model 6.2	Model 6.3	Model 6.4
lag(ESGX)	0,684***											
lag(EPSX)		0.242										
lag(SPSX)			0,432***									
lag(GPSX)				0.302								
lag(TOBI)					0,659***	0,666***	0,655***	0,661***				
lag(WACC)									0,423**	0,383**	0,436***	0.121
ESGX					-0.001				0.00004			
EPSX						0.0002				0.0001		
SPSX							-0.002				0.00003	
GPSX								-0.0004				0.00001
RISK	-7.852	-6.815	-1.091	-19,227*								
RETA	-0.330	1.119	-0.681	1.332								
LNTA	1,968**	3,304***	3,468***	-1.012	-0,241**	-0,246**	-0,234**	-0,244**	-0.001	-0.001	-0.001	0.003
GDPX	8,021**	13,927**	5.508	29,996***	-0.252	-0.265	-0.243	-0.253	0.004	0.002	0.004	-0.011
ROAX	-1.536	-1.731	-4.694	2.848	-2,567***	-2,577***	-2,568***	-2,568***	0,015*	0,015*	0,016*	-0,016**
CRPX	14.763	15.554	6.076	32.480	-8,308*	-8,402*	-8,262*	-8,320*	0,328*	0,308*	0,335**	-0.075
CATA	4.475	-1.203	5.373	0.978	-0.021	-0.022	-0.017	-0.022	-0.008	-0.009	-0.008	-0.005
AZSC	0.020	-0.072	0.023	-0,327**	0,301***	0,301***	0,301***	0,301***	-0,001***	-0,001***	-0,001***	-0,0004**
PPEA		0.772	5.529	2.009	0,623*	0,625*	0,627*	0,622*	0.003	0.003	0.003	0,018***
Observation	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375	1375
Evaluasi Model:												
Wald p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Sargan p-value	0.116	0.809	0.394	0.612	0.723	0.745	0.706	0.728	0.724	0.626	0.734	0.251
AR(1) p-value	0.000	0.189	0.000	0.195	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.003
AR(2) p-value	0.053	0.182	0.972	0.685	0.807	0.821	0.788	0.813	0.097	0.134	0.056	0.961
Significances:	*p<0.1;	**p<0.05;	***p<0.01									

Several observations can be made under the GMM model. (1) The Three ESG determinants, strategic orientation, risk-taking, and corporate life cycle, were found to have no statistically significant effect on ESG scores, whether composite or pillar-based. (2) When exploring the consequences of ESG, the study revealed that ESG scores, across both composite and pillars, did not have any statistically significant effect on either company value, measured by Tobin's Q, or the cost of debt. Furthermore, the significance of lagged dependent variables throughout the models underscores the dominance of data persistence as the key explanatory factor; essentially, the most robust predictor of a company's value this year is its value from the previous year. Finally, core financial metrics, such as profitability, represented by Return on Assets (ROA), and financial stability, measured by the Z-score, persist as statistically significant predictors of financial outcomes, such as company value and cost of debt. These findings suggest the heavily weighted importance of financial fundamentals over ESG scores in determining a company's fiscal performance.

3.4. Discussion

Our findings partially prove all the initial hypotheses and suggest several potential new perspectives for understanding the impact of ESG.

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Table 11. Initial hypothesis analysis.

No	Hypothesis	Fixed effect	GMM	Remarks
1	A prospector strategy will have a strong positive influence on ESG practices.	Supported	n/a	Statistical results show that the Prospector Strategy variable in models 1 to 4 (STRA:Prospector) has a significant impact on all aspects of ESG practices (ESGX, EPSX, SPSX, and GPSX). This means that companies using a prospector strategy tend to have much higher ESG practices compared to those that do not use this strategy.
2	Lower risk-taking will have a strong positive influence on ESG practices.	Supported	Inconsistent	Statistical results show that Risk variable (RISK) in models 1 to 4 has a negative and highly significant effect on all aspects of ESG practices. This means that higher company risk leads to lower ESG practices.
3	A more mature corporate life cycle will have a strong positive influence on ESG practices.	Weakly supported	Statistically not significant	Statistical results show that Lifecycle variable (RETA) in models 1 to 4 shows inconsistent and mostly insignificant results, only model EPSX (2) that show statistically significant result. This means that the positive effect of a more mature life cycle on ESG practices is only significant for the Environmental Practices (EPSX) dimension, but not for overall ESG (ESGX) or the social and governance dimensions.
4	ESG practices will have a strong positive influence on company value.	Not supported	Statistically not significant	Statistical results from Fixed Effect (FE) models 5.1 to 5.4 show that ESG practices have a significant negative effect on company value. Which is contrast to GMM model that shows no statistically significant relationship. For FE model, this means that, even though increasing ESG practices is significant, it actually lowers company value (measured by TOBI), which is the opposite of what Hypothesis 4 predicted. This is different from descriptive statistics, which may show that companies with high ESG practices have a high average company value. The difference may be because (a) the Fixed Effect Model controls for company characteristics that do not change over time and focuses on changes within each company—how changes in ESG practices from year to year affect company value. In other words, the Fixed Effect Model is better at showing how variations within a company impact its value. Another possible reason is (b) short-term costs: Descriptive statistics might capture companies that are generally good at ESG and also have high value due to good management or their industry. However, the Fixed Effect Model shows that when a company increases its ESG practices (like investing in green technology), the short-term costs of implementation may be seen as a burden by the market, leading to a slight

				decrease in company value (TOBI). Under GMM model, effect of past performance is proven to be more stronger to affect company value compare to ESG factors.
5	ESG practices will have a strong negative influence on the cost of debt.	Not supported	Statistically not significant	The results from Fixed Effect (FE) models 6.1 to 6.4 show that ESG practices have a very small positive but significant effect on the cost of debt (measured by WACC). This is different from the descriptive analysis and the opposite of hypothesis 5 predicted. Possible reasons include: • Cost of debt does not change instantly: Lenders may base their decisions on stable company characteristics, not small annual changes in ESG scores. • Stronger effect of control variables: The near-zero (0.000) coefficient suggests that, after controlling for other company factors like size (LNTA), profitability (ROAX), and credit risk (AZSC), the marginal effect of ESG on the cost of debt is almost none or very small. • Weaker signaling effect: Even though good ESG practices send a positive signal, it may not be strong enough to significantly lower the risk premium demanded by lenders, especially after including all other financial and company-specific risk factors. Under GMM model, effect of past performance is proven to be more stronger to affect WACC compare to ESG factors.

The findings of this study contribute new perspectives, pose challenges, and introduce nuances to several fundamental theories in corporate finance and sustainability. Specifically, the absence of a significant relationship between ESG practices and both firm value and cost of debt in the GMM model has profound theoretical implications. (1) These results fundamentally challenge the straightforward application of signalling theory in the ESG context. The data suggest that previous empirical support for signalling theory which posits that ESG activities act as positive signals valued by the market, may not be true in the short term due to the high costs associated with implementing an ESG strategy. When considering data dynamics using the GMM model, ESG signals do not appear strong enough to directly translate into higher market valuations or lower cost of capital, likely because they are overshadowed by more dominant financial fundamentals and the persistence of historical performance.

According to agency theory, while ESG practices and disclosures are theoretically expected to reduce information asymmetry between managers, shareholders, and creditors, thus lowering agency costs,this study finds that the measurable economic impact of reduced agency costs, especially as a decrease in the cost of debt, may not be statistically significant in the short term or may not be linear. This indicates that although ESG can enhance transparency, its financial benefits for creditors may not be immediate or may take longer to materialise. Most importantly,

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the study's most significant theoretical contribution is methodological: the contrast between the results of static models (fixed effects), which reveal significant relationships, and dynamic models (GMM), which do not, underscores that the validity of theory testing in ESG research is highly dependent on the econometric method used. This study demonstrates that failing to adequately address endogeneity and data persistence can lead to biased conclusions, potentially supporting or dismissing a theory incorrectly.

Resource-based theory that suggests that unique capabilities, including those related to ESG, can serve as sources of sustainable competitive advantage remains valid. However, the research findings indicate that the process of translating ESG capabilities into higher market value is neither direct nor automatic. This adds nuance to the theory by highlighting that possessing ESG capabilities alone is not sufficient; how these capabilities are executed and communicated within the context of strong financial fundamentals may be a more important determining factor.

It is important to acknowledge the limitations of this study. The findings are based on a single data provider (Refinitiv Eikon), and ESG ratings may diverge across different providers. The operationalisation of complex concepts, such as strategic orientation," into quantitative metrics is an inherent simplification. Finally, the GMM methodology cannot estimate the effect of time-invariant factors, such as industry or continent, which were consequently omitted from the dynamic models. This study has significant practical implications for managers, investors, and policymakers. The focus should shift from expecting immediate and direct financial returns from ESG investments to viewing ESG as a critical component of long-term strategic risk management. Rather than a tool for short-term profit generation, strong ESG practices should be understood as a framework for building corporate resilience, enhancing brand reputation, and aligning with evolving stakeholder expectations in the long term.

4. Conclusion

This study aims to empirically examine the complex relationship between Environmental, Social, and Governance (ESG) practices and corporate characteristics and performance using data on publicly listed companies in the ASEAN and Western Europe regions during the period 2013-2023. By conducting a comprehensive econometric analysis, specifically using the static fixed effect and dynamic panel model known as the General Method of Moments (GMM) as a comparison and additional analytical tool to provide a new perspective and provoke deeper thinking on how companies and management can and should manage their sustainable performance by considering the following findings.

The company past performance is still the strongest predictor of company values and lower cost of debt. Changes in company values and lower debt costs tend to be incremental and are heavily influenced by historical performance. This implies that the impact of ESG initiatives, if any, is likely not detectable in the short term and becomes less significant than the much more dominant influence of the company's historical performance.

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The dominant role of financial fundamentals: This study reaffirms the importance of fundamental financial variables. Profitability (ROAX) and financial stability (AZSC) are consistently the main drivers of firm value and the cost of capital. This finding underscores that regardless of the narrative surrounding ESG, investors and capital markets continue to place significant weight on traditional indicators of financial health.

The findings of this study have important practical implications for managers, investors, and policymakers. These insights can help them make more evidence-based decisions. For managers and companies: Investments in ESG initiatives should not be justified only by the hope of quick financial gains, such as higher stock prices or lower debt costs. Instead, managers should present and communicate ESG as a long-term risk management strategy, a way to build a good company reputation, and a way to meet stakeholders' growing expectations. The study shows that past company performance still has a strong influence on current value, which helps explain why markets do not immediately reward new ESG efforts. In addition, key financial fundamentals, such as profitability (ROA) and financial stability (Z-score), remain the main drivers of company performance and value.

For investors: Investors should be more critical and not assume that high ESG scores will automatically lead to better financial performance. The research suggests that ESG scores should be used as one of many tools in investment analysis, especially to identify and manage long-term non-financial risks (such as regulatory, reputation, or climate-related risks). ESG is not a "magic bullet" or the only predictor of profit but rather an additional perspective that can improve investment due diligence.

For regulators and policy makers: Policies to promote ESG practices should be formulated with the understanding that economic benefits may not appear immediately. Instead of expecting markets to instantly reward high-ESG companies, policies should focus on creating supportive ecosystems for long-term sustainability. This includes efforts to increase transparency, encourage standardised ESG reporting to reduce rating differences, and build stable frameworks that help companies and investors make long-term decisions.

Overall, the main takeaway is to adopt a more mature and nuanced view of ESG, seeing it as an important part of strategic and risk management and not just a shortcut to quick financial gains.

References

Aboud, A., & Diab, A. (2018). The impact of social, environmental, and corporate governance disclosures on firm value: Evidence from Egypt. *Journal of Accounting in Emerging Economies*, *8*(4), 442–458. https://doi.org/10.1108/JAEE-08-2017-0079

Albitar, K., Hussainey, K., Kolade, N., & Gerged, A. M. (2020). ESG disclosure and firm performance before and after IR: The moderating role of governance mechanisms. *International Journal of Accounting & Information Management*, *28*(3), 429–444. https://doi.org/10.1108/IJAIM-09-2019-0108

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ISSN: 2456-7760

Atan, R., Alam, Md. M., Said, J., & Zamri, M. (2018). The impacts of environmental, social, and governance factors on firm performance: Panel study of Malaysian companies. *Management of Environmental Quality: An International Journal, 29*(2), 182–194. https://doi.org/10.1108/MEQ-03-2017-0033

Azmi, W., Hassan, M. K., Houston, R., & Karim, M. S. (2021). ESG activities and banking performance: International evidence from emerging economies. *Journal of International Financial Markets, Institutions and Money, 70*, 101277. https://doi.org/10.1016/j.intfin.2020.101277

Bhuiyan, Md. B. U., & Nguyen, T. H. N. (2019). Impact of CSR on cost of debt and cost of capital: Australian evidence. *Social Responsibility Journal, 16*(3), 419–430. https://doi.org/10.1108/SRJ-08-2018-0208

DeAngelo, H., DeAngelo, L., & Stulz, R. M. (2006). Dividend policy and the earned/contributed capital mix: A test of the life-cycle theory$. Journal of Financial Economics.

Eliwa, Y., Aboud, A., & Saleh, A. (2021). ESG practices and the cost of debt: Evidence from EU countries. *Critical Perspectives on Accounting, 79*, 102097. https://doi.org/10.1016/j.cpa.2019.102097

Fatemi, A., Glaum, M., & Kaiser, S. (2018). ESG performance and firm value: The moderating role of disclosure. *Global Finance Journal, 38*, 45–64. https://doi.org/10.1016/j.gfj.2017.03.001

Fonseka, M., Rajapakse, T., & Richardson, G. (2019). The effect of environmental information disclosure and energy product type on the cost of debt: Evidence from energy firms in China. Pacific-Basin Finance Journal, 54, 159–182. https://doi.org/10.1016/j.pacfin.2018.05.001

Galbreath, J. (2010). The impact of strategic orientation on corporate social responsibility. *International Journal of Organizational Analysis, 18*(1), 23–40. https://doi.org/10.1108/19348831011033195

Gani, L., & Jermias, J. (2011). Investigating the Joint Effects of Strategy, Environment and Control Structure on Performance. Gadjah Mada International Journal of Business, 13(3), 249. https://doi.org/10.22146/gamaijb.5482

Garcia, A. S., Mendes-Da-Silva, W., & Orsato, R. J. (2017). Sensitive industries produce better ESG performance: Evidence from emerging markets. *Journal of Cleaner Production, 150*, 135–147. https://doi.org/10.1016/j.jclepro.2017.02.180

Gracia, O., & Siregar, S. V. (2021). Sustainability practices and the cost of debt: Evidence from ASEAN countries. Journal of Cleaner Production, 300, 126942. https://doi.org/10.1016/j.jclepro.2021.126942

Harjoto, M., & Laksmana, I. (2018). The Impact of Corporate Social Responsibility on Risk Taking and Firm Value. *Journal of Business Ethics, 151*(2), 353–373. https://doi.org/10.1007/s10551-016-3202-y

Hasan, M. M., & Habib, A. (2017). Corporate life cycle, organizational financial resources and corporate social responsibility. *Journal of Contemporary Accounting & Economics, 13*(1), 20–36. https://doi.org/10.1016/j.jcae.2017.01.002

Vol. 9, No.12; 2025

ISSN: 2456-7760

Jensen, C., & Meckling, H. (1976). THEORY OF THE FIRM: MANAGERIAL BEHAVIOR, AGENCY COSTS AND OWNERSHIP STRUCTURE.

Li, Y., Gong, M., Zhang, X.-Y., & Koh, L. (2018). The impact of environmental, social, and governance disclosure on firm value: The role of CEO power. *The British Accounting Review, 50*(1), 60–75. https://doi.org/10.1016/j.bar.2017.09.007

Nekhili, M., Boukadhaba, A., Nagati, H., & Chtioui, T. (2021). ESG performance and market value: The moderating role of employee board representation. *The International Journal of Human Resource Management, 32*(14), 3061–3087. https://doi.org/10.1080/09585192.2019.1629989

Raimo, N., De Nuccio, E., Giakoumelou, A., Petruzzella, F., & Vitolla, F. (2020). Non-financial information and cost of equity capital: An empirical analysis in the food and beverage industry. British Food Journal, 123(1), 49–65. https://doi.org/10.1108/BFJ-03-2020-0278

Raimo, N., Caragnano, A., Zito, M., Vitolla, F., & Mariani, M. (2021). Extending the benefits of ESG disclosure: The effect on the cost of debt financing. *Corporate Social Responsibility and Environmental Management, 28*(4), 1412–1421. https://doi.org/10.1002/csr.2134

Setiarini, A., Gani, L., Diyanty, V., & Adhariani, D. (2023). Strategic orientation, risk-taking, corporate life cycle and environmental, social and governance (ESG) practices: Evidence from ASEAN countries. *Business Strategy & Development, 6*(3), 491–502. https://doi.org/10.1002/bsd2.257

Spence, M. (2002). Signaling in Retrospect and the Informational Structure of Markets. American Economic Review, 92(3), 434–459. https://doi.org/10.1257/00028280260136200

Wernerfelt, B. (1984). A resource-based view of the firm. Strategic Management Journal, 5(2), 171–180. https://doi.org/10.1002/smj.4250050207

Younas, Z. I., & Zafar, A. (2019). Corporate risk taking and sustainability: A case of listed firms from USA and Germany. Journal of Global Responsibility, 10(1), 2–15. https://doi.org/10.1108/JGR-07-2018-0027

Yuan, Y., Lu, L. Y., Tian, G., & Yu, Y. (2020). Business Strategy and Corporate Social Responsibility. Journal of Business Ethics, 162(2), 359–377. https://doi.org/10.1007/s10551-018-3952-9