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Company's Performance Improve Cost of Equity of Cigarette Industries in Emerging Countries

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Abstract: The cigarette industry in emerging countries operates under substantial market volatility, regulatory pressure, and changing financial conditions, creating uncertainty in determining the cost of equity required by investors. This study aims to examine the effects of corporate financial performance on the cost of equity of cigarette companies in emerging countries, focusing on Debt to Equity Ratio, tax, growth, tangible assets, firm size, current ratio, and Price to Book Value. A quantitative approach was employed using secondary financial data from 12 listed cigarette companies observed during 2022–2024, resulting in 36 firm-year observations. Data were collected from corporate financial statements and analyzed using multiple linear regression with the Ordinary Least Squares method. The results show that Debt to Equity Ratio, tax, tangible assets, firm size, and current ratio significantly affect the cost of equity, whereas growth and Price to Book Value do not have significant effects. Simultaneously, the financial performance variables significantly explain variations in the cost of equity. These findings contribute to the corporate finance literature by providing empirical evidence on firm-specific determinants of the cost of equity in the cigarette industry and offer practical insights for managers and investors in evaluating financing decisions and investment risk.

Keywords: Cost of equity, Financial performance, Cigarette industry, Emerging countries, Firm characteristics

INTRODUCTION

The cigarette industry is characterized by a unique position in which it continues to generate substantial economic value while simultaneously facing regulatory pressures, changing consumer preferences, health-related risks, and the development of alternative tobacco products. Globally, the World Health Organization estimated that approximately 1.245 billion people used tobacco in 2022, indicating that tobacco consumption remains a large-scale phenomenon despite the declining global prevalence of tobacco use (Xue et al., 2023). In

Indonesia, the Global Adult Tobacco Survey reported that 34.5 percent of adults, or approximately 70.2 million people, used tobacco, while the prevalence of electronic cigarette use increased from 0.3 percent in 2011 to 3.0 percent in 2021 (Romadlona et al., 2026). These phenomena demonstrate that the cigarette industry continues to have a substantial consumer base, although companies must operate in an increasingly complex business environment shaped by regulation, product innovation, and changing consumer behavior. Under these conditions, the cost of equity is important to examine because it reflects the rate of return required by investors as compensation for the risks associated with investing in a company.

From the perspective of corporate finance, the cost of equity is a major component of the cost of capital used in investment valuation, financing decisions, and firm valuation. Lin et al. (2024) demonstrated that the cost of capital is associated with firm value and that the cost of equity plays an important role in shaping investors' perceptions of firm value. Arhinful et al. (2024) explained that financing decisions and corporate payout structures can influence the estimation of the cost of capital and the cost of equity used in valuation processes. In emerging markets, Karpates (2022) found that deviations from target leverage are associated with the cost of equity and the speed at which firms adjust their capital structures. Therefore, the cost of equity is influenced not only by market movements but also by internal firm characteristics, such as debt structure, taxation, growth, asset structure, firm size, liquidity, and market valuation.

Theoretically, the relationship between firm characteristics and the cost of equity can be explained through capital structure theory, trade-off theory, pecking order theory, and the risk–return relationship embodied in the Capital Asset Pricing Model. Gormsen & Huber (2024) showed that firm characteristics, industry characteristics, and time periods can generate differences in the cost of capital, indicating that cost of capital estimation should consider both firm-specific conditions and the environment in which a company operates. Çam & Özer (2022) found that corporate capital structure is associated with governance characteristics and the institutional environment, suggesting that financing decisions cannot be separated from corporate risk. Huang (2022) also showed that corporate characteristics and activities related to sustainability can affect firm value and performance, making internal corporate information relevant to investors' decision-making processes. This theoretical framework strengthens the argument that the Debt to Equity Ratio, tax, firm growth, tangible assets, firm size, current ratio, and Price to Book Value may provide information regarding the level of risk that is subsequently reflected in the cost of equity.

Previous empirical evidence indicates that the relationships between firm characteristics and indicators of risk and firm value have not produced entirely consistent findings. Nam & Tuyen (2024) found that capital structure and liquidity have significant relationships with financial performance and financial sustainability, indicating that the ability to manage financing sources and current assets is an important component of a company's financial condition. Alghifari et al. (2022) showed that capital structure, profitability, hedging policy, and firm size are associated with firm value, suggesting that financing decisions and firm characteristics should be analyzed simultaneously. Mudalige (2023) demonstrated a persistent effect of equity market timing on capital structure, while Sari et al. (2023) found that transfer pricing strategies and audit quality may be associated with firm risk. These differences in research focus and findings indicate that the influence of internal firm characteristics on the cost of equity requires further examination, particularly in the cigarette industry, which is characterized by distinctive business conditions and regulatory pressures compared with other industries.

Although research on the cost of equity has continued to develop, a research gap remains because most previous studies have examined specific determinants separately and have been conducted in different industrial and national contexts. Dias et al. (2022) examined corporate life-cycle stages, voluntary disclosure, and the cost of equity among Brazilian public companies

and found that certain stages of the corporate life cycle are associated with higher implied costs of capital. Chacko & Padmakumari (2024) focused on the investor base and found that more dispersed ownership structures may increase the cost of equity because of weaker shareholder incentives to monitor management. Siglé et al. (2024) emphasized that corporate tax strategies and tax control have implications for corporate compliance behavior, indicating that taxation is an important component of firm risk that should not be overlooked. These conditions reveal a research gap arising from the limited number of studies that simultaneously integrate the Debt to Equity Ratio, tax, growth, tangible assets, firm size, current ratio, and Price to Book Value in explaining the cost of equity specifically among cigarette companies in emerging countries.

Based on these phenomena, theoretical foundations, and research gaps, this study aims to analyze the effects of firm performance and financial characteristics on the cost of equity of cigarette companies in emerging countries. Specifically, this study examines the effects of the Debt to Equity Ratio, tax, firm growth, tangible assets, firm size, current ratio, and Price to Book Value on the cost of equity, both partially and simultaneously. Theoretically, this study is expected to contribute to the development of the cost of equity literature by integrating financing structure, taxation, growth, asset structure, firm size, liquidity, and market value within a single research model. Practically, the findings are expected to assist corporate management in making financing and financial management decisions and to help investors evaluate the risks and expected returns associated with investments in cigarette company shares. In addition, this study is expected to provide more contextual empirical evidence regarding the determinants of the cost of equity in an industry characterized by relatively high regulatory pressures and market risks in emerging countries.

Liquidity reflects a company's ability to meet its short-term obligations using its current assets. An adequate level of liquidity can provide firms with greater flexibility in conducting operating activities and undertaking investments. However, a high level of liquid assets may also increase opportunity costs when such resources are not used productively. Muchsidin et al. (2025) explained that liquidity ratios play an important role in maintaining corporate financial stability, while from the perspective of Pecking Order Theory, firms with substantial liquid assets have a greater capacity to rely on internal financing. Based on this argument, this study assumes that liquidity has a positive relationship with the cost of equity. H1: Corporate liquidity has a positive effect on the cost of equity.

Firm size reflects the scale of a company's operations and the resources under its control. Larger firms generally have broader access to financing sources and lower bankruptcy costs per unit of assets than smaller firms. Estiasih et al. (2024) showed that firm size may be positively associated with leverage because larger firms have a greater ability to obtain external financing. (Bui et al., 2023) also demonstrated that firm size is one of the relevant characteristics in explaining corporate capital structure decisions. Based on the relationship among firm size, financing decisions, and the risks considered by investors, this study assumes that firm size has a positive effect on the cost of equity. H2: Firm size has a positive effect on the cost of equity.

Tangible assets represent the proportion of physical assets owned by a company, including property, plant, and equipment used to support operational activities. Asset structure is one of the factors that may influence financing decisions because tangible assets can serve as a basis for obtaining external financing. Ognjanović et al. (2024) explained that tangibility can be measured as the ratio of property, plant, and equipment to total assets. A higher proportion of tangible assets indicates greater capital intensity and may alter the level of risk perceived by investors. Therefore, this study assumes that an increase in tangible assets has a positive relationship with the cost of equity. H3: Tangible assets have a positive effect on the cost of equity.

Firm value reflects how the market evaluates a company's prospects and performance. One indicator commonly used to represent firm value is Price to Book Value, which compares the market price of a company's shares with its book value. Alghifari et al. (2022)explained

that firm value is associated with capital structure, profitability, firm size, and corporate financial policies. When a company is considered undervalued, it may prefer debt financing, whereas when it is considered overvalued, equity issuance may become an alternative source of financing. Based on this relationship, firm value is expected to influence the rate of return required by investors. H4: Firm value has a positive effect on the cost of equity.

Taxation is one of the components that influences net cash flows, financing decisions, and corporate financial risk. Firms may adopt tax strategies through financing arrangements and transaction policies to improve tax efficiency. Sari et al. (2023) showed that tax strategies implemented through transfer pricing mechanisms may be associated with firm risk, while Siglé et al. (2024) demonstrated that tax strategy is an important component of corporate tax control and compliance. In the context of the cost of equity, greater tax benefits may reduce financing burdens and ultimately lower the rate of return required by investors. Based on this argument, this study assumes that taxation has a negative relationship with the cost of equity. H5: Tax has a negative effect on the cost of equity.

Based on the theoretical arguments and previous empirical findings, this study develops a conceptual framework to examine the relationship between selected firm characteristics and the cost of equity. The framework focuses on five independent variables, namely liquidity, firm size, tangible assets, firm value, and tax. Liquidity, firm size, tangible assets, and firm value are expected to have positive effects on the cost of equity, whereas tax is expected to have a negative effect. These relationships are formulated into five research hypotheses and are illustrated in Figure 1.

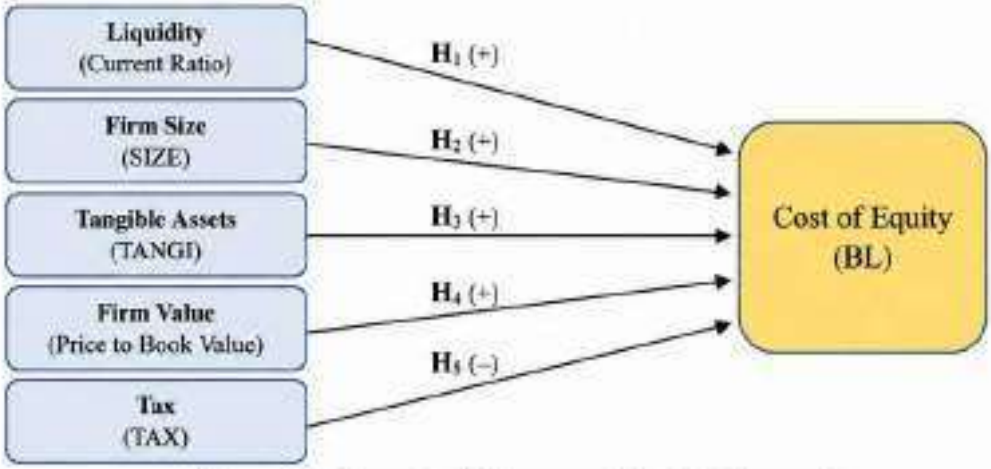


Figure 1. Conceptual Framework of the Research

Figure 1 illustrates the proposed relationships between the five independent variables and the cost of equity as the dependent variable. Liquidity, measured by the current ratio, is hypothesized to have a positive effect on the cost of equity (H1), while firm size is also expected to have a positive effect on the cost of equity (H2). Tangible assets are hypothesized to positively affect the cost of equity (H3), and firm value, represented by Price to Book Value, is expected to have a positive effect on the cost of equity (H4). In contrast, tax is hypothesized to have a negative effect on the cost of equity (H5). Therefore, the conceptual framework serves as the basis for empirically examining the proposed relationships between firm characteristics and the cost of equity in cigarette companies operating in emerging countries.

METHODS

Research Design

This study employed a quantitative approach with a descriptive and verificative design to describe the financial characteristics of the firms and to empirically examine their effects on the cost of equity. A quantitative approach is appropriate for testing relationships among variables using numerical data and statistical analysis (Kotronoulas et al., 2023). The data combine cross-sectional and time-series dimensions over the 2022–2024 period, thereby forming a panel data structure (Prasetyo & Rivai, 2025).

Population and Sampling

The population consisted of 15 listed companies operating in the cigarette industry in emerging countries. Of these, three companies were excluded because they did not have complete data, resulting in a final sample of 12 listed companies observed over three years, producing 36 firm-year observations. Based on this selection process, the sampling technique is classified as non-probability purposive sampling, because the sample was selected according to the availability and completeness of the data required for the study (Rahman, 2023).

Data Sources and Collection

This study used secondary data obtained from corporate financial statements, including income statements, balance sheets, and cash flow statements for the 2022–2024 period. These data were used to measure the Debt to Equity Ratio, tax, firm growth, tangible assets, firm size, current ratio, Price to Book Value, and cost of equity. Data were collected using a documentation method because the study did not employ questionnaires, interviews, or experimental procedures (Chand, 2025).

Data Quality and Research Procedure

Because this study relied on secondary financial data rather than psychometric instruments, item validity and reliability tests such as Cronbach's alpha were not applicable. Data quality was maintained by checking the completeness of financial statements, consistency of reporting periods, data consistency, and the availability of all components required to measure the research variables. The research procedure consisted of identifying the population, selecting the sample based on data completeness, collecting and tabulating the data, calculating the research variables, conducting regression assumption tests, and estimating and evaluating the model.

Classical Assumption Tests

Before estimating the regression model, several classical assumption tests were conducted, including multicollinearity, normality, heteroscedasticity, and autocorrelation tests. Multicollinearity was assessed using the Variance Inflation Factor, with values not exceeding 10 indicating the absence of serious multicollinearity problems Kyriazos & Poga (2023), while residual normality was examined using the Jarque–Bera test at a 5 percent significance level Cardoso et al. (2025). Heteroscedasticity was tested using the Glejser test, with a probability value greater than 0.05 indicating the absence of heteroscedasticity problems Zhang et al. (2024), while autocorrelation was evaluated based on the test probability using a significance threshold of 0.05.

Data Analysis

The data were analyzed using multiple linear regression with the Ordinary Least Squares method, with cost of equity as the dependent variable and Debt to Equity Ratio, tax, growth, tangible assets, firm size, current ratio, and Price to Book Value as the independent variables. Partial effects were tested using the t-statistic, while the simultaneous effects of the independent

variables were evaluated using the F-statistic at a 5 percent significance level. Model adequacy was assessed using the F-statistic, while the explanatory power of the model was measured using the Adjusted R-Square. Econometric software was used to perform the analysis; however, the name and version of the software were not specified in the source manuscript, and therefore are not reported here to avoid introducing information not provided in the original study.

RESULTS AND DISCUSSION

Descriptive Statistics

Descriptive statistical analysis was conducted on 36 observations obtained from 12 cigarette companies during the 2022–2024 period. The *cost of equity*, represented by BL, had a mean of 0.734, a median of 0.590, a maximum of 1.190, and a minimum of 0.320. The *Debt to Equity Ratio* had a mean of 0.16 times, a median of 0.05 times, a maximum of 0.687 times, and a minimum of 0.00 times. On average, debt financing accounted for approximately 16%, while the remaining financing was provided through equity.

The tax variable had a mean of 0.245, a median of 0.23, a maximum of 35%, and a minimum of 20%. Tax rates varied across the sampled countries, namely 22% in Indonesia, 24% in Malaysia, 25% in China, 20% in Vietnam, 30% in Bangladesh, 29% in Pakistan, and 25% in South Korea. Sales *growth* had a mean of 15.7%, a median of 8.84%, a maximum of 243.9%, and a minimum of −35.74%, with a standard deviation of 43.99%, indicating substantial variation in sales growth among the sampled firms.

Tangible assets had a mean of 73.99%, a median of 77.06%, a maximum of 98.56%, and a minimum of 38.54%, indicating that the sampled cigarette companies generally had capital-intensive asset structures. *Firm size* had a mean of 6.7, a median of 6.61, a maximum of 8.18, and a minimum of 5.27. The *current ratio* had a mean of 2.04 times, a median of 1.82 times, a maximum of 7.08 times, and a minimum of 0.9 times. Meanwhile, *Price to Book Value* had a mean of 2.69 times, a median of 2.09 times, a maximum of 9.23 times, and a minimum of 0.38 times. Overall, the descriptive statistics indicate considerable variation in the financial characteristics and market valuation of the sampled companies.

Classical Assumption Test Results

The normality test showed that the *Jarque–Bera* probability value was greater than 0.05, indicating that the regression residuals were normally distributed. The multicollinearity test also showed that all centered *Variance Inflation Factor* values were below the threshold of 10. Specifically, the centered *Variance Inflation Factor* values were 2.048636 for *Debt to Equity Ratio*, 1.792934 for tax, 1.170378 for *growth*, 1.934724 for *tangible assets*, 1.568603 for *firm size*, 1.806621 for *current ratio*, and 1.959394 for *Price to Book Value*. Therefore, no serious multicollinearity problem was identified among the independent variables.

The Glejser heteroscedasticity test produced an *F-statistic* of 1.042517 with a probability of 0.4249, an Obs*R-squared value of 7.442834 with a *Chi-Square* probability of 0.3843, and a scaled explained sum of squares of 6.144657 with a *Chi-Square* probability of 0.5230. All probability values were greater than 0.05. Accordingly, the null hypothesis of homoskedasticity was not rejected, indicating that the regression model did not exhibit a heteroscedasticity problem.

The linearity and model specification were evaluated using the Ramsey Regression Equation Specification Error Test. The test produced a *t-statistic* of 0.588842 with 27 degrees of freedom and a probability of 0.5609, an *F-statistic* of 0.346735 with degrees of freedom (1, 27) and a probability of 0.5609, and a likelihood ratio of 0.459370 with a probability of 0.4979. The Test Sum of Squared Residuals was 0.011922, the Restricted Sum of Squared Residuals was 0.940255, and the Unrestricted Sum of Squared Residuals was 0.928333, while the restricted and unrestricted log-likelihood values were 14.53043 and 14.76011, respectively.

Since the relevant probability values exceeded 0.05, the estimated model satisfied the linearity and functional-form specification requirements.

Autocorrelation was examined using the Breusch–Godfrey Serial Correlation Lagrange Multiplier Test with up to two lags. The test produced an *F-statistic* of 11.12849 with a probability of 0.0003 and an Obs*R-squared value of 16.60384 with a *Chi-Square* probability of 0.0002. Both probability values were below the 0.05 significance level, resulting in rejection of the null hypothesis of no serial correlation. Therefore, unlike the other classical assumption tests, the regression model still exhibited an autocorrelation problem.

Ordinary Least Squares Regression Results

The relationship between the independent variables and the cost of equity was estimated using the Ordinary Least Squares method. The estimated regression equation is expressed as follows:

BL = 0.0721879666651 − 0.484482932793 DER − 2.94294064638 TAX + 0.12025767054 GROWTH + 0.570179800397 TANGI + 0.09878486140O9 SIZE + 0.163839231213 CR + 0.00883186194707 PBV

The model produced an R-Square value of 0.663314 and an Adjusted R-Square value of 0.579142. Therefore, after accounting for the number of predictors included in the model, approximately 57.91% of the variation in the cost of equity was explained by the independent variables, while the remaining variation was attributable to factors outside the model. The F-statistic was 7.880498 with a probability value of 0.000028, indicating that the independent variables jointly had a statistically significant relationship with the cost of equity at the 5% significance level.

Table 6. Ordinary Least Squares Regression Results

Variable	Coefficient	t-Statistic	Probability	Statistical Result
Constant	0.072188	0.183552	0.8557	Not significant
Debt to Equity Ratio	−0.484483	−2.097837	0.0451	Significant
Tax	−2.942941	−2.814704	0.0088	Significant
Growth	0.120258	1.579035	0.1256	Not significant
Tangible Assets	0.570180	2.353908	0.0258	Significant
Firm Size	0.098785	2.186025	0.0373	Significant
Current Ratio	0.163839	4.337401	0.0002	Significant
Price to Book Value	0.008832	0.501544	0.6199	Not significant

As shown in Table 6, the Debt to Equity Ratio, tax, tangible assets, firm size, and current ratio had probability values below 0.05 and were therefore statistically significant. In contrast, growth and Price to Book Value had probability values of 0.1256 and 0.6199, respectively, indicating that their relationships with the cost of equity were not statistically significant. Thus, five of the seven independent variables were statistically significant in the estimated model.

Results for Individual Variables

The Debt to Equity Ratio had a coefficient of −0.484483 and a probability value of 0.0451, indicating a negative and statistically significant relationship with the cost of equity. Holding the other variables constant, an increase of one unit in the Debt to Equity Ratio was associated with a decrease of 0.484483 units in the cost of equity.

Tax had a coefficient of −2.942941 and a probability value of 0.0088. The coefficient was negative and statistically significant, indicating that an increase of one unit in tax was associated with a decrease of 2.942941 units in the cost of equity, holding the other variables constant.

Growth had a positive coefficient of 0.120258, but its probability value of 0.1256 exceeded the 0.05 significance level. Therefore, growth did not have a statistically significant relationship with the cost of equity.

Tangible assets had a coefficient of 0.570180 and a probability value of 0.0258. This result indicates a positive and statistically significant relationship with the cost of equity. Holding other variables constant, an increase of one unit in tangible assets was associated with an increase of 0.570180 units in the cost of equity.

Firm size had a positive coefficient of 0.098785 with a probability value of 0.0373, indicating a positive and statistically significant relationship with the cost of equity. The current ratio also had a positive coefficient of 0.163839 with a probability value of 0.0002, indicating a positive and statistically significant relationship. Among the variables included in the model, the current ratio had one of the lowest probability values and therefore showed particularly strong statistical significance.

Price to Book Value had a positive coefficient of 0.008832, but its probability value of 0.6199 was greater than 0.05. Therefore, Price to Book Value did not have a statistically significant relationship with the cost of equity. Overall, the partial regression results identified five statistically significant variables—Debt to Equity Ratio, tax, tangible assets, firm size, and current ratio—while growth and Price to Book Value were not statistically significant.

Hypothesis Testing Results

The five hypotheses developed in this study were evaluated based on the direction of the estimated coefficients and their probability values at the 5% significance level. Table 7 summarizes the hypothesis-testing results.

Table 7. Summary of Hypothesis Testing Results

Hypothesis	Proposed Relationship	Empirical Result	Decision
H1	Liquidity positively affects the cost of equity	Current Ratio: β = 0.163839; p = 0.0002	Supported
H2	Firm size positively affects the cost of equity	β = 0.098785; p = 0.0373	Supported
H3	Tangible assets positively affect the cost of equity	β = 0.570180; p = 0.0258	Supported
H4	Firm value positively affects the cost of equity	Price to Book Value: β = 0.008832; p = 0.6199	Not supported
H5	Tax negatively affects the cost of equity	β = −2.942941; p = 0.0088	Supported

As presented in Table 7, H1, H2, H3, and H5 were supported, whereas H4 was not supported. Liquidity, firm size, and tangible assets showed positive and statistically significant relationships with the cost of equity, while tax showed a negative and statistically significant relationship. Although Price to Book Value had a positive coefficient, its probability value of 0.6199 indicated that the relationship was not statistically significant; therefore, the hypothesis concerning firm value was not supported. In addition to the five formally proposed hypotheses, the Debt to Equity Ratio was found to have a negative and statistically significant relationship with the cost of equity, whereas growth was not statistically significant.

Discussion

Overall Findings and Explanatory Power of the Model

The results indicate that the financial characteristics of the firms jointly have a significant relationship with the cost of equity. The model produced an Adjusted R-Square of 0.579142, indicating that 57.91% of the variation in the cost of equity can be explained by the Debt to Equity Ratio, tax, firm growth, tangible assets, firm size, Current Ratio, and Price to Book Value, while the remaining variation is explained by factors outside the model. The simultaneous test, with an F-statistic probability of 0.000028, also demonstrates that the combination of these firm characteristics is relevant in explaining variations in the cost of equity. This finding is consistent with Ahmed et al. (2023), who showed that the cost of capital is influenced not only by firm characteristics but also by industry characteristics and the period of observation. Hariyanur et al. (2022) likewise demonstrated that capital structure and components of the cost of capital are closely related to firm value, indicating that financing decisions are an important element in investors' assessment of risk.

These findings imply that the assessment of the cost of equity in the cigarette industry of emerging countries should not rely solely on market movements. Internal firm characteristics also provide important information regarding the risk borne by shareholders. This is particularly relevant because the sampled companies operate in different emerging countries with varying tax rates, liquidity levels, asset structures, firm sizes, and market conditions. Therefore, this study provides evidence that a firm-characteristics-based approach can complement market-based approaches in explaining the rate of return required by investors.

Debt to Equity Ratio and Cost of Equity

The Debt to Equity Ratio was found to have a coefficient of −0.484483 with a probability value of 0.0451, indicating a negative and statistically significant relationship with the cost of equity. This result suggests that an increase in the use of debt within the financing structure is associated with a decrease in the cost of equity, holding other factors constant. Theoretically, the relationship between leverage and the cost of equity is not always straightforward because changes in the composition of debt and equity can alter the distribution of risk between creditors and shareholders. Hariyanur et al. (2022) emphasized that financing structure and corporate payout policies can influence the estimation of the cost of equity, indicating that changes in leverage should be analyzed together with other financial characteristics of the firm.

The negative relationship found in this study can also be understood in the context of the relatively low level of debt usage among the sampled firms, with an average Debt to Equity Ratio of 0.16 times. Under relatively low leverage conditions, an increase in debt usage may still provide financing benefits and reduce dependence on relatively more expensive equity financing. Karptes & Viverita (2022) showed that the relationship between leverage deviation and the cost of equity in emerging markets depends on a firm's position relative to its target capital structure and the economic conditions it faces. Therefore, the negative relationship observed in this study does not imply that higher debt always reduces risk, but rather indicates that the effect of leverage on the cost of equity may be context-dependent and influenced by the firm's initial financing structure.

Tax and Cost of Equity

Tax had a coefficient of −2.942941 with a probability value of 0.0088, indicating a negative and statistically significant relationship with the cost of equity. This result supports the research hypothesis stating that tax negatively affects the cost of equity. The finding suggests that the taxation environment may be one of the factors considered in the formation of corporate risk and financing decisions. Sari et al. (2023) showed that taxation aspects, particularly transfer pricing strategies, are associated with firm risk among publicly listed

companies in Southeast Asia, indicating that taxation policies cannot be separated from financial decisions and corporate risk profiles.

However, the tax result in this study should be interpreted cautiously because the sample includes companies from countries with different tax rates, ranging from 20% to 35%. Therefore, the tax variable may capture not only the fiscal burden of the firm but also some institutional and policy characteristics of the countries in which the companies operate. Siglé et al. (2024) demonstrated that the quality of tax control and corporate tax strategies is related to compliance behavior and tax obligation management. Thus, the negative relationship between tax and the cost of equity found in this study may indicate that taxation mechanisms and tax management form part of the firm's risk environment, although the underlying causal mechanism requires further investigation.

Liquidity, Firm Size, and Tangible Assets

Liquidity, represented by the Current Ratio, had a coefficient of 0.163839 with a probability value of 0.0002. This finding supports the first hypothesis and indicates that liquidity has a positive and statistically significant relationship with the cost of equity. Although high liquidity generally reflects a firm's ability to meet its short-term obligations, holding a relatively large amount of current assets may also generate opportunity costs when those resources are not used productively. Herman & Zsido (2023) showed that liquidity is an important factor in financial performance and financial sustainability. The present study extends this perspective by demonstrating that, among cigarette companies, a higher level of liquidity does not necessarily correspond to a lower cost of equity.

Firm size produced a coefficient of 0.098785 with a probability value of 0.0373, supporting the second hypothesis. This result indicates that larger firms in the sample tend to have a higher cost of equity. This finding is noteworthy because large firms are often assumed to have greater financing capacity and better diversification opportunities. However, in a highly regulated industry such as the cigarette industry, an increase in firm size may also be accompanied by greater operational complexity, regulatory exposure, and capital requirements. Alghifari et al. (2022) demonstrated that firm size is an important component in the relationship between capital structure and firm value, while Gold et al. (2022) found that industry characteristics significantly affect the cost of capital. Therefore, the positive effect of firm size found in this study may reflect industry-specific characteristics and market conditions that differ from those of firms in other sectors.

Tangible assets had a coefficient of 0.570180 with a probability value of 0.0258, indicating that the third hypothesis is also supported. The relatively high average proportion of tangible assets, at 73.99%, indicates that the sampled cigarette companies are generally capital intensive. Empirically, a higher proportion of tangible assets is associated with a higher cost of equity. One possible explanation is that substantial investment in fixed assets increases capital commitment and may reduce a firm's flexibility to adjust its production capacity in response to changes in regulation, technology, or market demand. This finding further emphasizes the importance of considering industry characteristics when interpreting corporate risk and the cost of capital.

Firm Value and Cost of Equity

Contrary to the initial hypothesis, Price to Book Value had a coefficient of 0.008832 with a probability value of 0.6199, indicating that it did not have a statistically significant relationship with the cost of equity. Therefore, the fourth hypothesis, which proposed that firm value positively affects the cost of equity, was not supported. This result suggests that market valuation relative to book value does not necessarily directly reflect the level of risk used by investors in determining their required rate of return. Javaid et al. (2023) found that the cost of equity can affect firm value, whereas the present study examines the relationship in the opposite

direction, namely firm value as a determinant of the cost of equity. This difference indicates that the relationship between these two variables may not be symmetrical.

In addition, the cost of equity may be influenced by factors that are not fully captured by Price to Book Value. Chacko & Padmakumari (2024), for example, found that investor-base characteristics and ownership structure can affect the ex-ante cost of equity, particularly when shareholder monitoring of management is weak. This suggests that governance risk, investor characteristics, and ownership structure may influence the return required by investors independently of market valuation. Therefore, the insignificant effect of Price to Book Value may indicate that this market ratio alone is insufficient to capture the full range of risks faced by cigarette companies in emerging countries.

Firm Growth and Cost of Equity

Firm growth had a coefficient of 0.120258 with a probability value of 0.1256, indicating that it did not have a statistically significant relationship with the cost of equity. This result shows that the substantial variation in sales growth, with an average of 15.7%, a maximum of 243.9%, and a minimum of −35.74%, was not directly translated by investors into changes in the cost of equity. High growth may reflect expansion opportunities, but it may also be accompanied by greater financing needs and increased uncertainty regarding future cash flows. Consequently, the net effect of growth on investor risk perception may become statistically insignificant.

This finding can be interpreted in light of Abu Alia et al. (2022), who showed that the relationship between firm growth conditions and the cost of equity may depend on the firm's life-cycle stage and level of voluntary disclosure. Firms in the growth and maturity stages may exhibit different risk and disclosure characteristics compared with firms in the introduction or decline stages. Therefore, sales growth alone may not fully capture all risk characteristics relevant to investors. Future research may distinguish firms according to their life-cycle stages to provide a more precise analysis of the relationship between growth and the cost of equity.

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

This study examined the influence of firm financial characteristics on the cost of equity of cigarette companies in emerging countries. The findings demonstrate that the Debt to Equity Ratio, tax, tangible assets, firm size, and current ratio are significantly associated with the cost of equity, whereas firm growth and Price to Book Value do not show statistically significant relationships. The model explains 57.91% of the variation in the cost of equity, indicating that internal financial characteristics provide meaningful information for understanding the equity financing risk of cigarette companies in emerging markets. These findings directly address the research objective by confirming that the cost of equity is influenced by several dimensions of corporate financial performance rather than by market valuation and growth indicators alone.

The study contributes to the corporate finance literature by integrating capital structure, taxation, liquidity, asset structure, firm size, growth, and market valuation within a single empirical framework for the cigarette industry. In particular, the results provide evidence that liquidity, firm size, and tangible assets are positively associated with the cost of equity, while tax and the Debt to Equity Ratio are negatively associated with it. The findings therefore extend the understanding of cost-of-equity determinants in a highly regulated and capital-intensive industry operating across emerging countries and provide an empirical basis for evaluating financing decisions and investment risk in this specific context.

Limitations

This study has several limitations. First, the analysis was based on only 12 listed cigarette companies observed over the 2022–2024 period, producing 36 firm-year observations;

therefore, the findings should not be generalized beyond the scope of the sampled companies and emerging countries examined. Second, the model was limited to the Debt to Equity Ratio, tax, growth, tangible assets, firm size, current ratio, and Price to Book Value, while other firm-specific and macroeconomic factors may also influence the cost of equity. Third, the relatively short observation period may not fully capture long-term changes in financial structure and market conditions. In addition, the Breusch–Godfrey Serial Correlation Lagrange Multiplier Test indicated an autocorrelation problem, which should be considered when interpreting the regression estimates.

Recommendations

Future research should extend the observation period, increase the number of sampled companies, and include a broader range of emerging countries to improve the generalizability of the findings. Additional explanatory variables, such as macroeconomic conditions, risk-free interest rates, ownership structure, corporate governance, regulatory changes, and industry-specific factors, may be incorporated to develop a more comprehensive model of the cost of equity. Future studies may also employ alternative panel-data estimation techniques, such as fixed-effects or random-effects models, Generalized Least Squares, or robust standard errors, particularly to address autocorrelation and unobserved heterogeneity. A longer longitudinal design may also provide a clearer understanding of how changes in financial characteristics affect the cost of equity over time.

Author Contributions

All authors made substantial contributions to this study. Their contributions included the conceptualization of the research, development of the theoretical framework, research design, data collection and preparation, statistical analysis, interpretation of the findings, manuscript preparation, critical scholarly revision, and final approval of the manuscript for publication. All authors have read and approved the final version of the article and agree to be accountable for the integrity of the work.

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