

## **Determinant Cost of Capital**

**Nur Khosim<sup>1</sup>, Adler Haymans Manurung<sup>2</sup>**

Doctoral In Economics, Universitas Trisakti Jakarta Indonesia<sup>1</sup>, Universitas  
Bhayangkara Jaya Jakarta Indonesia<sup>2</sup>  
221022311002@std.trisakti.ac.id<sup>1</sup>, adler.manurung@dsn.ubharajaya.ac.id<sup>2</sup>

### **ABSTRACT**

*The purpose of this paper is to look at the determinants of a company's cost of capital. This study conducted a literature review with the aim of identifying the factors that affect the cost of capital of a company. The research shows that profitability, liquidity, tax, growth and firm size are the determinants that affect the cost of capital of a firm. Further research shows a positive correlation between the cost of capital and profitability, liquidity, growth and firm size. The capital arrangement of a firm is determined based on the pecking order theory and trade-off theory while still considering the cost elements associated with it.*

**Keywords:** *Cost of Capital, Profitability, Liquidity.*

### **ABSTRAK**

Tujuan dari makalah ini adalah untuk melihat faktor penentu biaya modal perusahaan. Penelitian ini melakukan tinjauan pustaka dengan tujuan untuk mengidentifikasi faktor-faktor yang mempengaruhi biaya modal suatu perusahaan. Penelitian menunjukkan bahwa *profitability, liquidity, tax, growth* dan *firm size* adalah penentu yang mempengaruhi biaya modal perusahaan. Penelitian lebih lanjut menunjukkan korelasi positif antara *cost of capital and profitability, liquidity, growth* dan *firm size*. Pengaturan modal perusahaan ditentukan berdasarkan teori urutan mematak dan teori *trade-off* sambil tetap mempertimbangkan elemen biaya yang terkait dengannya.

**Kata kunci:** *Cost of Capital, Profitabilitas, Likuiditas.*

### **INTRODUCTION**

Capital cost is a crucial aspect of financial management in any business because it determines the minimum return that a company must earn on its investments to satisfy its investors. Several factors determine the capital cost for a business. Extensive research has been conducted to identify the factors influencing capital cost. Two primary sources of capital for a company are debt financing or equity financing. The capital source adopted by a company is ultimately driven by the shareholders' interest in maximizing profits. We define capital cost as the amount of money a company pays after earning profits to shareholders, bondholders, or lenders.

Equity financing is typically provided by the company's shareholders or entities, while debt financing is usually provided by bondholders or lenders. Therefore, the determinants of capital cost are greatly influenced by the financing model adopted by a company. Many researchers have identified profitability, liquidity, growth, and company size among the key determinants affecting capital

cost. According to Mittal and JHA (2020), "capital structure" refers to the combination of all accessible sources, and this combination depends on the characteristics of the company, industry, and specific country, where both the company and industry aspects function as macro-environmental factors for the organization. The capital arrangement adopted by a company is determined by the associated capital cost.

## **LITERATURE REVIEW**

According to Saif-Alyousfi et al. (2020), there are several factors influencing the cost of capital. These factors include profitability, growth, taxes, and unpredictable liquidity, all of which impact the cost of capital. Additionally, factors such as collateral, non-debt taxes, and income uncertainty have positive consequences on the cost of capital. The research identifies taxes, liquidity, company growth, company size, profitability, and dividend payments as crucial determinants of the cost of capital. Another study by Khan, Bashir, and Islam (2021) suggests that income uncertainty, growth, and company size have significant consequences with good leverage. Empirical findings from this research show that evaluative variables such as profitability, profit uncertainty, asset tangibility, growth, and company size influence capital structure decisions.

According to a 2019 study by Almanaseer, a series of factors such as financial leverage, size, risk, growth, and taxes affect capital structure. Bank capitalization effectively influences its stability and capacity to provide adequate liquidity and credit. It is essential for the banking sector to support economic growth in any country to facilitate the transfer of money between deficit and surplus units. The findings indicate a positive consequence connecting the financial sector with the banking sector. Larger financial institutions with increased growth rates will require financial support for expansion operations, and if their internal resources are insufficient, they will borrow from external sources. Therefore, they must consider their solvency and liquidity, requiring the use of appropriate methodologies to establish the appropriate level of capitalization and its suitability.

In another study by Rahayu et al. (2020), an organization's capital arrangement is determined by profitability measures such as return on investment (ROI), return on equity (ROE), and net profit margin. Further research indicates that profitability is a determinant factor in a company's capital structure. Profitability has a negative consequence on a company's capital structure. The research suggests that a decrease in debt proportion in a company's capital structure results from increased profitability measured by ROI, ROE, and net profit margin. According to Muhammad et al. (2019), factors such as company size, profitability, and tangibility influence a company's capital structure. Research referencing banks in Bangladesh shows a negative relationship between capital structure and profitability, size, and tangibility of a bank. The study indicates that companies with large banks, higher profitability, and greater tangibility have less need for debt financing, but the opposite occurs in practice.

According to Flor and Petersen (2021), factors such as profitability and industry median averages influence an organization's capital structure. Other factors

include sales. The research shows that the determinants of the cost of capital are interdependent. The main determinants of profitability are market average medians compared to book and industry sales.

Adjustments to profits reflecting the opportunity cost of capital have been a focus of discussion for some time according to Alfred Marshall's principles. The cost of capital also affects financial performance (Kasidi et al., 2022). According to Ghani et al. (2022), a series of factors influence a company's capital arrangement. These factors include profitability, size, and taxes. Other factors include inflation and the debt-to-equity ratio. An entity must analyze the theory of capital arrangement it wishes to adopt. This will fundamentally be determined by other factors affecting the cost of capital relative to equity.

According to Cankaya and Bylo (2019), many factors affect a company's capital. These factors include total debt to equity ratio, profitability, liquidity, and taxes affecting the company's cost of capital. This study focuses on developing and transitional countries. The pecking order theory suggests that companies should choose debt financing before equity financing in that order. According to Juliasari et al. (2020), various factors influence a company's capital structure, including asset structure, profitability, and company size. These variables have positive consequences for a company's capital arrangement and further affect the company's cost of capital.

According to Abeid et al. (2020), factors influencing a company's capital include size, profitability, and investment opportunities. Further research shows that asset tangibility is a factor, although not significant, that also affects a company's capital structure. Investment opportunities will open possibilities for exploring various sources of capital available to an entity, considering the cost components of each source. Company size, such as net worth, and profitability levels will affect capital and, consequently, the cost implications of the capital raised. According to Ir. Soekarno and Benyamin (2023), several factors affect a company's capital structure, including profitability, liquidity, tangibility, and growth. Research results show that profitability, liquidity, tangibility, and growth variables have a positive influence and constructive impact on a company's leverage ratio.

A higher cash dividend payout increases a company's likelihood of survival as it results in lower debt costs. Dividend payments have a signaling effect on the market and can effectively reduce costs (Mukhongo et al., 2022). According to Oudgou (2020), several factors, including growth rate, asset tangibility, profitability, size, taxes, and industry sector, influence an organization's capital arrangement. According to the research, profitability affects a company's total debt. Profitable companies prefer to use resources generated by their assets. The study also highlights the benefits of debt financing for companies, as interest payments on debt can be tax-deductible. Based on the research assumptions, size, profitability, and risk are negatively related to the total debt ratio, while profitability and industry sector are positively related to the debt ratio.

Keown, Martin, and Petty in Tirta (2013) explain that the primary goal of a business or company is to create value for its owners, i.e., for the company's

shareholders. Therefore, the financial or management goal is to create wealth for shareholders by making decisions that maximize the company's stock price.

The value of a company, reflected in its stock price, can be indicated by various financial ratios. These ratios can provide management with insights into how investors view the company's future prospects. Tobin's Q ratio is one such measure used to assess a company's value.

Tobin's Q is used to reflect the company's quality from a perception standpoint, regardless of potential calculation errors (Damodaran, 2012). Morck et al. and McConnell et al. in Chandra (2013) use Tobin's Q as a measure of company performance because it reflects the market value of the company, indicating future profits such as current earnings. The value of a company can be seen from its stock price. Therefore, investor assessments of the company greatly influence its value. External evaluations such as those by analysts and investors can be made by reviewing the company's financial statements.

To more easily assess a company's financial performance, investors can look at commonly used financial ratios, including profitability, liquidity, and leverage. Additionally, investors can examine dividend policies and company size. Previous research explains that financial ratios, dividend policies, and company size can affect investors' perceptions of the company's value.

Ross et al. (2012:62) explain that profitability is a ratio used to assess a company's ability to earn profits and provides a measure of management effectiveness. Commonly used profitability ratios include:

- a. Net Profit Margin: used to measure how much profit is earned from each sale.
- b. Asset Turnover: measures how efficiently assets are used to generate revenue.
- c. Return on Assets: measures how effectively a company generates profit from its assets.
- d. Return on Equity: measures a company's ability to generate profit for shareholders.
- e. Earnings per Share: measures the net profit earned per share of stock.

Balancing profitability and liquidity is crucial for a company. Besides using assets to generate profits, a company must also determine the amount of current assets needed for daily operations, such as salaries, raw material purchases, and taxes. Ross et al. (2012:22) explain that liquidity refers to how quickly and easily assets can be converted into cash. Liquidity essentially has two dimensions: ease of conversion and loss of value.

Brealey et al. (2011:719) describe common liquidity ratios used by companies, including:

- a. Net Working Capital to Assets Ratio: the ratio between the difference between current assets and current liabilities and total assets.
- b. Quick (Acid-Test) Ratio: measures the ability of current assets, excluding inventory and less liquid assets, to meet short-term obligations.
- c. Cash Ratio: measures the liquidity of current assets that are immediately available, such as cash and short-term securities.

- d. Current Ratio: measures a company's ability to pay short-term liabilities using all its short-term assets.

A company's liquidity level often limits optimal debt usage. However, debt and current assets can substitute for each other when a company experiences cash shortages. Leverage, in financial management, refers to the extent of asset and funding use by a company with fixed costs to potentially increase shareholder returns. A company without leverage means using 100% of its own capital for operations and investments (Marsha, 2013).

Leverage can be divided into two types: Operating Leverage and Financial Leverage. Operating leverage arises when a company uses fixed costs in production, focusing on these costs relative to variable costs to produce quality output. A business with high operating leverage is defined as one with high fixed costs. Financial leverage involves using funds for the company to pay a fixed return on debt or preferred stock financing, hoping to provide additional profit for the company.

Brealey et al. (2011:716) explain several common leverage ratios, including:

- a. Debt to Equity Ratio: measures the composition of a company's financing from long-term debt versus equity.
- b. Times-Interest-Earned Ratio: measures how well interest on bonds can be covered by earnings.
- c. Cash Coverage Ratio: uses depreciation of fixed assets to measure a company's ability to cover interest payments since depreciation expenses reduce net income.

Besides financial ratios, dividend policies can also influence investor evaluations of a company. Dividends are distributions of company profits to shareholders. Dividends can be in cash or stock. Cash dividends reduce retained earnings. Companies are likely to distribute cash dividends if there are no projects or investments expected to increase returns and company value. Stock dividends increase the number of shares outstanding and decrease the price per share.

Dividends are also classified by payment timing into regular dividends (paid at regular intervals) and special dividends (paid at specific times and act like a bonus).

A company with significant total assets can provide a positive signal to external parties, as large total assets can be used as collateral to obtain financing.

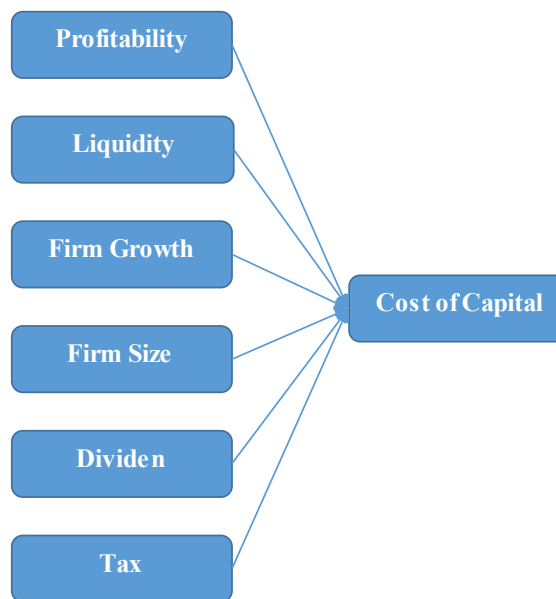
Kaen and Baumann (2003) classify company size theories into four types:

- a. Technological Theory: explains that physical capital and economies of scale and scope determine the optimal company size, focusing on the production process needed to produce output.
- b. Organizational Theory: relates to organizational transaction costs, agency costs, and control cost range. It includes critical resource theory and competency theory. Critical resource theory emphasizes the control of resources such as assets, technology, and intellectual property by the company owner as a determinant of company size.
- c. Competency Theory: explains that a company is a collection of competencies that allow it to earn profits exceeding capital costs. These competencies may

- include production technology and research and development capabilities.
- d. Institutional Theory: links company size with external factors such as legislation, anti-trust regulations, patent protection, market size, and financial market development.

According to Niresh and Velnampy (2014), company size is commonly measured using the natural logarithm of total assets.

The conceptual framework for this research is illustrated in the following figure:



**Figure 1. Determinants of Cost of Capital**

The company's ability to generate profit positively affects its value. Higher profitability makes the company more attractive to investors. Profit not only indicates the company's ability to meet obligations to its financiers but also contributes to the creation of the company's value, reflecting its future prospects.

Research by Mery (2017) and Putra and Sarumpaet (2017) shows that profitability affects company value, meaning that profitability adds value to the company as reflected in its stock price. However, contrary results were found in the study by Hermawan and Mafulah (2014), which indicated that profitability does not affect company value. Based on this discussion, the proposed hypothesis is:

**H1: Profitability does not affect the cost of capital**

Liquidity, which refers to a company's ability to meet its short-term obligations, can influence investors' perceptions when deciding where to invest.

**H2: Liquidity affects the cost of capital**

Brigham and Houston (2011) in Pratiska (2012) explain that increased debt is interpreted by investors as the company's ability to pay future obligations, which will receive a positive response from the market. Using debt can reduce taxable income because companies are required to pay interest on loans.

A company with a high level of debt indicates that it is capable of meeting future obligations, thus reducing investor uncertainty about the company's ability to provide returns on the invested capital (Brigham and Houston, 2011).

An increase in stock demand on the stock exchange will affect the company's stock price. Thus, as the market price of the stock increases, so does the company's value.

Research by Wahyuni et al. (2013) and Irayanti and Tumber (2014) concludes that leverage affects company value. However, different results were shown in Pratiska's (2012) research, which concluded that leverage has an insignificant effect on company value. Based on this discussion, the proposed hypothesis is:

### **H3: Company growth affects the cost of capital**

Company growth (asset growth) has a positive effect on dividend policy (dividend payout ratio).

### **H4: Company Size does not affect the cost of capital**

Company size (size) does not affect the cost of capital.

### **H5: Dividends do not affect the cost of capital**

Company size can influence investor interest in investing in a company. A large company size reflects a good financial condition and promising future prospects.

### **H6: Taxes**

Tax avoidance affects the cost of capital.

## **RESEARCH METHODOLOGY**

This research is quantitative in nature. Quantitative research methods involve using numerical data, from data collection and processing to analysis and results. According to Sugiyono (2012), quantitative methods are grounded in the philosophy of positivism and are used to examine populations or samples to test hypotheses. This study consists of six independent variables: profitability, liquidity, growth, size, dividends, and taxes, and one dependent variable: the cost of capital. The data is drawn from manufacturing companies listed on the Indonesia Stock Exchange (IDX) from 2020 to 2024. The analysis will use regression methods. The variables in this study are categorized into dependent and independent variables, as follows:

### **Dependent Variable**

The dependent variable is the one affected by the independent variables. In this research, the dependent variable is the cost of capital. The cost of capital can be calculated using the following simple formula:

$$\text{Cost of Capital} = \text{cost of debt} + \text{cost of equity}$$

### **Independent Variables**

#### **Profitability**

According to Van Horne et al. (2005), profitability can be measured using two

types of ratios: first, the ratio indicating the relationship between profitability and sales, such as the gross profit margin.

## **Liquidity**

According to Sawir (2009), liquidity can be measured using several ratios: current ratio, quick ratio, and cash ratio. In this study, liquidity is measured using the current ratio. Wallace (1994) in Kasmir (2008) describes that a company's ability to meet short-term obligations can be measured using the current ratio. The current ratio is calculated using the formula:

## **Firm Growth**

Firm growth is measured by asset growth (AG).

## **Company Size**

Company size is measured using the natural logarithm of total assets, which simplifies the measurement of the company's assets without altering the proportion of the actual asset amount:

$$\text{Size} = \ln \text{ Total Aset}$$

## **Dividends**

Dividend policy is measured using the Dividend Payout Ratio, which is the ratio of dividends per share to earnings per share:

$$DPR = \text{Dividend per Share} / \text{Earning per share}$$

## **Tax**

Tax avoidance in this research uses the proxy of the Effective Tax Rate (ETR). Previous studies have indicated that ETR is a commonly used proxy for measuring tax avoidance. A low ETR can be an indicator of tax avoidance practices. ETR is measured by comparing tax expenses to pre-tax earnings, as described by Armstrong et al. (2015). The measurement is conducted using financial reports to determine the value in Indonesian Rupiah (IDR).

## **RESULT AND DISCUSSION**

Based on the data processing of independent and dependent variables in this study using multiple regression methods, the following results were obtained:

**Tabel 1. Running Regresi Berganda**

<i>Regression Statistics</i>	
Multiple R	0.95627
R Square	0.91446
Adjusted R Square	0.84114
Standard Error	86,494.62399
Observations	14.00000

ANOVA					
	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	6.00000	559,833,047,361.08000	93,305,507,893.51340	12.47180	0.00197
Residual	7.00000	52,369,239,856.13340	7,481,319,979.44763		
Total	13.00000	612,202,287,217.21400			

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
Intercept	(1,860,696.03515)	379,025.78676	(4.90915)	0.00173	(2,756,949.60250)	(964,442.46779)	(2,756,949.60250)	(964,442.46779)
Profitabilitas	(518,127.18012)	217,524.68073	(2.38192)	0.04874	(1,032,491.31550)	(3,763.04475)	(1,032,491.31550)	(3,763.04475)
Likuiditas	(33,140.47998)	25,670.83002	(1.29098)	0.23771	(93,842.34721)	27,561.38725	(93,842.34721)	27,561.38725
Firm Growth	48,975.95306	142,473.48776	0.34375	0.74112	(287,920.31132)	385,872.21743	(287,920.31132)	385,872.21743
Firm Size	153,008.48307	23,089.78381	6.62667	0.00030	98,409.82030	207,607.14584	98,409.82030	207,607.14584
Dividen	1,406,216.54323	396,783.02595	3.54404	0.00942	467,973.77744	2,344,459.30902	467,973.77744	2,344,459.30902
Tax	124.49308	149.95401	0.83021	0.43382	(230.09181)	479.07796	(230.09181)	479.07796

## CONCLUSION

This research paper explores the determinants of the cost of capital within a company. Capital management is determined based on the pecking order theory and trade-off theory, while considering the associated cost elements. Many researchers have identified profitability, liquidity, growth, size, age, and asset tangibility as key factors influencing a company's cost of capital. This study identifies significant interdependencies among these variables affecting the cost of capital.

Companies with high profitability typically adopt a self-financing model, where profits are reinvested into the company. In contrast, less profitable companies tend to prefer debt financing. Equity financing is usually the last resort for most companies due to its expensive nature.

In Kenya, a key determinant of the cost of capital is the political and economic stability of the country. Political stability is crucial as it assures investors that their investments are safe and profits are not disrupted by political turmoil. Economic stability, on the other hand, provides a predictable environment for businesses to operate, thereby reducing investment risks. Another determinant of the cost of capital in Kenya is the inflation rate. High inflation increases the cost of borrowing, which in turn raises the cost of capital for businesses.

The availability and cost of credit are also significant determinants of the cost of capital in Kenya. High borrowing costs in Kenya are due to the risky lending environment. Banks and financial institutions impose high interest rates to compensate for the risk of default, which increases the cost of capital for businesses. The level of competition in the market also affects the cost of capital in Kenya. Businesses operating in highly competitive markets must offer higher returns to attract investors, which in turn raises their cost of capital.

Lastly, the level of regulation in Kenya's financial sector also impacts the cost of capital. Stringent regulations increase compliance costs for businesses, thereby increasing their cost of capital. In conclusion, the cost of capital in Kenya is determined by a combination of factors, including political and economic stability, inflation rate, availability and cost of credit, market competition, and financial sector

regulations. Businesses that understand these factors can make informed decisions on managing their cost of capital and maximizing return on investment.

## REFERENCES

- Abeid, AR, Kossele, TP, Xue, GZ, & Kyissima, KH (2020). Analisis stabilitas struktur modal perusahaan yang terdaftar di Cina. *Tinjauan Keuangan China Internasional*, 10(2), 213-228. doi:<https://doi.org/10.1108/CFRI-05-2018-0044>
- Almanaseer, SR (2019). Penentu Struktur Modal: Bukti dari Yordania. <http://afr.sciencedupress.com/>, 8(4), 8-9. doi:<https://doi.org/10.5430/afr.v8n4p186>
- Çankaya, A., & Bylo, A. (2019). Penentu Struktur Modal dalam Perekonomian Transisi. *Jurnal Internasional Perdagangan dan Keuangan*, 5(1), 70-78. Diperoleh dari <https://ssrn.com/abstract=3427322>
- Flor, CR, & Petersen, KB (2021). Mendeteksi Faktor Penentu Struktur Modal. *Universitas Denmark Selatan*, 1-45. doi:<https://dx.doi.org/10.2139/ssrn.3147628>
- Ghani, EK, Rehan, R., Salahuddin, S., & Hye, QA (2022). Menemukan Struktur Modal Penentu SAARC Energy. *Jurnal Internasional Ekonomi dan Kebijakan Energi*, 1-9. doi:<https://doi.org/10.32479/ijeeep.13938>
- Juliasari, D., Yahdi, M., & Najib, MA (2020). Penentu Struktur Modal. *Konferensi Kemajuan*, 2622-3031. Diambil dari <http://proceedings.stiewidyagamalumajang.ac.id/index.php/progress>
- Kasidi, K., Riwegho, SA, Omar, AM, & Kamau, CG (2022). Keputusan Dividen dan Nilai Tambah Ekonomi Perusahaan di Kenya. SocArXiv <https://doi.org/10.31235/osf.io/9h4a3>
- Khan, S., Bashir, U., & Islam, MS (2021). *Jurnal Internasional Keuangan dan Manajemen Islam dan Timur Tengah*. 14(2), 268-285. doi:<https://doi.org/10.1108/IMEFM-04-2019-0135>
- Mittal, DK, & JHA, P. (2020). Faktor Penentu Struktur Modal UKM: Bukti dari Literatur. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3866159](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3866159), 1-10. doi:<https://dx.doi.org/10.2139/ssrn.3866159>
- Muhammad, T., & Sharif FCMA, DJ (2019). Penentu Struktur Modal: Bukti Empiris Dari Bank Terdaftar di Bangladesh. *Biaya dan Manajemen*, 47(5), 1-9. Diperoleh dari <https://www.icmab.org.bd/wp-content/uploads/2019/12/5.Determinants.pdf>
- Muhongo, E., Njeri, P., & Kamau, CG (2022). Hubungan antara Kebijakan Dividen, Keputusan Investasi, Kinerja Keuangan dan Kelangsungan Hidup Perusahaan di Kenya. *Jurnal Elektronik SSRN*. <https://dx.doi.org/10.2139/ssrn.4283042>

- Oudgou, M. (2020). Penentu Struktur Modal :. *Jurnal Studi Mediterania Athena*, 1-14. doi:<https://doi.org/10.30958/ajms.XYZ>
- Rahayu, M., M, S., & Suhadak, S. (2020). “Hubungan timbal balik antara profitabilitas dan struktur modal serta dampaknya terhadap nilai perusahaan pada perusahaan manufaktur di Indonesia”. *Jurnal Internasional Produktivitas dan Manajemen Kinerja*, 69(2), 236-251. doi:<https://doi.org/10.1108/IJPPM-05-2018-0196>
- Saif-Alyousfi, AY, Md-Rus, R., Taufil-Mohd, KN, Taib, HM, & Shahar, HK (2020). Penentu struktur modal : Bukti dari perusahaan Malaysia. *Jurnal Administrasi Bisnis Asia- Pasifik*, 12(3/4), 283-326. doi:<https://doi.org/10.1108/APJBA-09-2019-0202>
- Sukarno, S., & Benyamin, PL (2023). Penentu Struktur Modal Publik Perusahaan Infrastruktur di. *Jurnal Internasional Penelitian dan Tinjauan Sains Saat Ini*, 6(2), 1-11. doi: <https://doi.org/10.47191/ijcsrr/V6-i2-18>,