

ANALYZING THE RELATIONSHIP BETWEEN PROFITABILITY AND CAPITAL STRUCTURE OF COMPANIES IN THE INTRODUCTION AND MATURE PHASES

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Abstract

Numerous empirical studies have consistently highlighted a significant inverse correlation between a firm's profitability and its choice of capital structure, aligning with the pecking-order theory, primarily attributed to information asymmetry dynamics. Cooney & Kalay (1993) extended this theory with the concept of a generalized pecking order, elucidating a shift in the theory's relevance when information asymmetry is influenced more by uncertainties related to growth rather than asset composition. This study employs the two-phase company cycle framework introduced by (Dickinson, 2011), distinguishing between the introductory and maturity phases, which are known to exhibit distinct patterns of information asymmetry. Through empirical analysis, we evaluate the applicability of the pecking-order theory in explaining the interplay between profitability and capital structure, incorporating the notion of a generalized pecking order. Our research findings underscore that the pecking-order theory holds limited relevance during the introductory phase but gains significance during the maturity phase, particularly in elucidating the relationship between profitability and capital structure. During the introductory phase, we observed a positive association between profitability and debt issuance, while profitability exhibited a negative association with equity issuance.

Keywords: *Capital Structure, Firm life cycle, Information Asymmetry, Pecking Order, Profitability*

ANALISIS HUBUNGAN PROFITABILITAS DAN STRUKTUR MODAL PERUSAHAAN PADA FASE PENGENALAN DAN DEWASA

Abstrak

Banyak studi empiris telah secara konsisten menyoroti hubungan terbalik yang signifikan antara profitabilitas perusahaan dan pilihan struktur modalnya, sesuai dengan teori pecking-order, yang utamanya disebabkan oleh dinamika asimetri informasi. Cooney & Kalay (1993) memperluas teori ini dengan konsep pecking order yang umum, mengungkapkan pergeseran dalam relevansi teori tersebut ketika asimetri informasi lebih dipengaruhi oleh ketidakpastian pertumbuhan daripada komposisi aset. Studi ini menggunakan kerangka kerja siklus perusahaan dua tahap yang diperkenalkan oleh Dickinson (2011), membedakan antara fase pengenalan dan kematangan, yang dikenal memiliki pola asimetri informasi yang berbeda. Melalui analisis empiris, kami mengevaluasi aplikabilitas teori pecking-order dalam menjelaskan hubungan antara profitabilitas dan struktur modal, dengan menggabungkan gagasan pecking order yang

umum. Temuan penelitian kami menekankan bahwa teori pecking-order memiliki relevansi terbatas selama fase pengenalan tetapi menjadi lebih signifikan selama fase kematangan, terutama dalam menjelaskan hubungan antara profitabilitas dan struktur modal. Selama fase pengenalan, kami mengamati hubungan positif antara profitabilitas dan penerbitan utang, sementara profitabilitas menunjukkan hubungan negatif dengan penerbitan ekuitas.

Kata kunci: Struktur Modal, Siklus Hidup Perusahaan, Informasi Asimetris, Pecking order, Profitabilitas

INTRODUCTION

Focusing on one of the main determinants of capital structure, it is widely recognized that there exists a strong negative relationship between profitability and debt (Danis et al., 2014; Oino & Ukaegbu, 2015), demonstrating the superiority of the pecking-order theory in predicting corporate financing behavior based on profitability compared to the trade-off theory. According to the pecking-order theory, this negative relationship is caused by the hierarchical decision-making structure in corporate financing due to the phenomenon of information asymmetry (Myers & Majluf, 1984), which also indicates a negative relationship between profitability and equity issuance. Meanwhile, the predictions of the trade-off theory regarding a positive relationship between profitability and debt are based on trade-off adjustment forces, such as tax shield benefits, bankruptcy costs, and agency costs (Myers, 1984).

The relevance of the pecking-order theory compared to the trade-off theory in predicting the negative relationship between profitability and debt has been confirmed through various studies, empirical evidence, and resilience tests (Rajan & Zingales, 1995; Titman & Wessels, 1988; Wald, 1999). Fama & French (2002) concluded that the tax shield benefit from debt usage for increasing firm value tends to be less significant. Graham & Harvey (2001) and Graham & Rogers (2002) concluded that the use of the tax shield by companies experiencing increased profits is not as strong as described by the trade-off theory. In other words, concerning profitability, it has been demonstrated that there exists a strong negative relationship between profitability and debt, in line with the pecking-order theory (Myers & Majluf, 1984).

Meanwhile, Cooney & Kalay (1993) re-examined the classic pecking-order model of Myers & Majluf (1984) and found that the direct conclusions of the pecking-order theory were due to one of its assumptions. Considering this, Cooney & Kalay (1993) developed the classic pecking-order theory of Myers & Majluf (1984) and found that the relevance of the classic pecking-order theory depends on the type of information asymmetry faced by the company. (Cooney & Kalay, 1993) and Wu & Wang (2005) defined this concept as the generalized pecking-order.

The generalized pecking-order suggests that there are two types of information asymmetry faced by companies: information asymmetry regarding asset-in-place and growth opportunities. Based on this concept, the classic pecking-order theory becomes relevant when the information asymmetry faced by the company is dominated by limited information about asset-in-place but becomes irrelevant when the information asymmetry faced by the company is dominated by limited information about growth opportunities. In other words, the generalized pecking-order theory states that when the phenomenon of information asymmetry faced by the company is dominated by growth opportunities, the pecking-order theory's foundation, which posits that equity issuance will always signal "bad news" to external parties due to information asymmetry (He et al., 2013; Morellec & Schürhoff, 2011; Nagar et al., 2019), does not hold.

Using the concept of generalized pecking-order as a research basis, Wu & Au Yeung (2012) demonstrated the irrelevance of the classic pecking-order theory of Myers and Majluf

(1984) for high-growth companies with information asymmetry dominated by growth opportunities. This includes explaining the behavior of capital structure arrangement based on profitability. Focusing on the determinant of profitability, Wu & Au Yeung (2012) found a negative relationship between profitability and equity issuance, alongside a positive relationship between profitability and debt issuance. Both findings contradict the predictions of the classic pecking-order theory, which has been proven to strongly explain financing behavior based on profitability determinants. The hierarchical structure of the classic pecking-order theory, where equity becomes the last choice when a company faces deficits, does not apply. Interestingly, a positive relationship between profitability and debt issuance was found in high-growth companies, contrary to the majority of empirical research findings on capital structure.

Cooney & Kalay (1993) as well as Wu & Wang (2005) explain that based on the concept of generalized pecking-order, the phenomenon of information asymmetry dominated by growth opportunities tends to be found in pre-mature companies that tend to have relatively small asset values but good growth prospects. Conversely, information asymmetry dominated by asset-in-place tends to be faced by companies with relatively high asset values but relatively lower growth prospects. In line with this characteristic, the research of Bulan & YAN (2010) and Frank & Goyal (2003) also concluded that the classic pecking-order theory would be more relevant to mature companies. In other words, in the movement of a company's cycle, different types of information asymmetry tend to be faced.

Based on the above phenomena and discussions, the researcher is interested in the concept of generalized pecking-order and the research findings of Wu & Au Yeung (2012), which demonstrate the existence of dynamics in corporate financing behavior that is believed to be documented in the movement of a company's cycle, particularly regarding the relevance of the classic pecking-order theory in explaining the relationship between profitability and the use of debt and equity. Using a systematically developed company cycle classification based on cash flows (Dickinson, 2011), the researcher aims to study the relevance of the classic pecking-order theory in explaining the relationship between profitability and the use of corporate capital structure in the movement of a company's cycle in Indonesia based on the concept of generalized pecking-order.

In accordance with the concept of the generalized pecking-order, the relevance of the classic pecking-order theory in explaining corporate financing behavior based on the type of information asymmetry faced by the company can be tested within the two company cycle classifications (Dickinson, 2011), namely introduction and maturity, based on the company's asset value and growth prospects. Therefore, this study focuses on both types of company cycles.

The concept of the generalized pecking-order explains that the classic pecking-order theory tends to be relevant in predicting corporate financing behavior when the information asymmetry faced by the company is dominated by asset uncertainties. Conversely, when the information asymmetry faced by the company is dominated by growth uncertainties, it is predicted that the classic pecking-order theory will not be relevant in predicting corporate financing behavior.

Focusing on the determinant of capital structure, profitability, the classic pecking-order theory predicts a negative relationship between profitability and the issuance of debt and equity. Wu & Au Yeung (2012) based on their understanding of the generalized pecking-order, demonstrated a positive relationship between profitability and debt issuance and a negative relationship between profitability and equity issuance when considering the type of information asymmetry, rendering the classic pecking-order theory inapplicable.

Based on the company cycle classification theory by Dickinson (2011) and according to the concept of the generalized pecking-order, it is predicted that the classic pecking-order

theory tends to be irrelevant in the introduction cycle where companies are predicted to have low asset values and high growth prospects. Theoretically, companies in this cycle tend to exhibit characteristics of small-growth firms. In contrast, in the mature cycle, where theoretically there are high asset values and relatively lower growth prospects, it is assumed that the classic pecking-order theory tends to be relevant.

According to the concept of the generalized pecking-order, when the classic pecking-order theory is likely irrelevant, Wu & Au Yeung (2012) demonstrated a positive relationship between profitability and debt issuance and a negative relationship between profitability and equity issuance, thereby violating the hierarchical decision-making structure of the classic theory. Equity issuance when information asymmetry is dominated by growth uncertainties tends not to signal negative overvaluation to investors but rather indicates the presence of investment projects with positive NPV that require additional funding (Cooney & Kalay, 1993; Wu & Wang, 2005). This allows for a preference for equity usage, rather than debt, which is more likely when a company experiences internal fund deficits, suggesting a negative relationship between profitability and equity issuance.

On the other hand, Wu and Yeung (2012) explain that the reason behind the positive relationship between profitability and debt issuance is the tax shield benefit, which aligns with the trade-off theory. Based on the concept of the generalized pecking-order, companies dominated by growth uncertainties tend to have characteristics of low asset values with high growth prospects (Wu & Wang 2005). These characteristics imply a high funding need for such companies to facilitate the exploitation of growth prospects. Based on the understanding of the company cycle, (Ahmed et al., 2021; Alqahtani et al., 2022; Hasan et al., 2021; Hasan & Habib, 2017; Zhang & Xu, 2021) introduction companies with high growth prospects tend to require high funding.

Tax expenses reduce the value of one of the company's funding sources, retained earnings. As taxable income increases, tax expenses also increase. Considering the significant funding needs, it is believed that the tax shield benefit, which reduces tax expenses on taxable income through debt issuance, can become a relevant motivation in corporate financing activities, creating a form of tax-efficient investment strategy through debt issuance when company profitability increases. In this case, debt issuance not only injects funds into the company but also reduces the increased tax burden on taxable income. Since covering internal fund deficits is no longer the responsibility of debt issuance (companies tend to cover internal fund deficits through equity issuance when growth uncertainties dominate), this phenomenon can explain the explanations of Fama & French (2002) and Wu & Wang (2005) regarding the less audible motivation of tax shield benefit in high-profit companies. It is presumed that the tax shield benefit may become relevant in debt usage when a company is faced with high funding needs where debt is not needed to cover internal fund deficits.

In conclusion, the concept of the generalized pecking-order predicts the irrelevance of the classic pecking-order theory in explaining the relationship between profitability and the use of capital structure in the introduction cycle. According to Wu & Au Yeung (2012), it is predicted that there is a positive relationship between profitability and debt issuance and a negative relationship between profitability and equity issuance in the introduction cycle.

H1: The classic pecking-order theory is not relevant in the introduction cycle, resulting in a positive relationship between profitability and debt issuance and a negative relationship between profitability and equity issuance in the introduction cycle.

On the other hand, the concept of the generalized pecking-order indicates that the classic pecking-order theory tends to be relevant for companies in the mature cycle, where the information asymmetry mainly comes from asset-in-place, causing the relationship between profitability and the use of capital structure to be predicted in line with the classic pecking-order theory. (Bulan & YAN, 2010; Frank & Goyal, 2003) support the relevance of the classic pecking-order theory in the mature cycle of companies. As generally known, the classic pecking-order theory reveals a hierarchical structure in corporate financing decisions, starting from internal funds, followed by debt, and then equity (Myers & Majluf 1984). Companies tend to be hesitant and reluctant to issue equity due to the phenomenon of information asymmetry, making debt usage as external financing more attractive. Equity issuance tends to signal overvaluation, not a signal of positive investment projects, to investors. Based on this, it is presumed that in the mature cycle, there is a negative relationship between profitability and both debt and equity issuance, where the negative coefficient value of profitability on debt issuance is greater than that on equity issuance in the mature cycle, in line with the classic pecking-order theory.

H2: The classic pecking-order theory is relevant in the mature cycle, resulting in a negative relationship between profitability and both debt and equity issuance, with the coefficient value of profitability on debt issuance higher than that on equity issuance.

METHODOLOGY

Data

Based on the method of acquisition, the type of data used in this research was acquired from S&P CAPITAL IQ database. In terms of type, the data used in this research is panel data, which is a combination of time series and cross-sectional data. The panel data represents cross-sectional unit data, the sample companies, studied over a specific period. In this study, a balanced panel data type is utilized. The sample used in this research comprises all publicly listed companies on the Indonesia Stock Exchange for the period of 2011 to 2020. Exceptions were made for companies in the financial sector and investment company subsector. These companies record client funds as liabilities, leading to very high debt values due to the nature of their operational activities, indicating distinct characteristics of capital structure. Exceptions were also applied to companies that lacked complete financial information reports for the period 2011 to 2020.

Empirical Model

The model used in this research is the multiple regression model due to the presence of more than one independent variable used. This study employs two regression models to test the relationship between profitability in each company cycle and debt issuance and equity issuance. The research models used are as follows.

$$NDBT^{it} = \beta^0 + \beta^1 DLCI^{it} + \beta^2 DLCM^{it} + \beta^3 INTxPROF^{it} + \beta^4 MTRxPROF^{it} + \beta^5 MB^{it} + \beta^6 TANG^{it} + \beta^7 SIZE^{it} + \beta^8 INDLEV^{it} + \beta^9 DDIV^{it} + \varepsilon^{it}$$

$$NEQY^{it} = \beta^0 + \beta^1 DLCI^{it} + \beta^2 DLCM^{it} + \beta^3 INTxPROF^{it} + \beta^4 MTRxPROF^{it} + \beta^5 MB^{it} + \beta^6 TANG^{it} + \beta^7 SIZE^{it} + \beta^8 INDLEV^{it} + \beta^9 DDIV^{it} + \varepsilon^{it}$$

Note:

$NDBT_{it}$ = Net debt issued over total asset

$NEQY_{it}$ = Net equity issued over total asset

$DLCI_{it}$ = *Dummy cycle introduction*

$DLCM_{it}$ = *Dummy cycle mature*

$INTxPROF_{it}$ = Interaction *introduction* and profitability

$MTRxPROF_{it}$ = Interaction *mature* and profitability

MB_{it} = Market to book ratio

$TANG_{it}$ = Fixed asset over total asset

$SIZE_{it}$ = *natural log of total asset*

$INDLEV_{it}$ = Median industry *leverage* industri based on 9 BEI industry classification

$DDIV_{it}$ = *dividend payer dummy*

In the dummy variable, if a company meets the criteria, the variable's value is equal to one. If the company does not meet the criteria, the variable's value is equal to zero. The status of the company's cycle for each year is determined based on the three values of the company's cash flows (CFO, CFI, CFF) in the company's financial statements, as shown in Table 1 (Dickinson, 2011).

Table 1. Dickinson Cash Flow Classification

Cash Flow Type	Introduction	Growth	Mature	Shake-Out	Decline
Operating	Firms enter market with knowledge deficit about potential revenues and costs (-)	Profit margins are maximized during period of greatest investment (+)	Efficiency maximized through increased knowledge of operations (+)	Declining growth rates lead to declining prices Routines of established firms hinder competitive flexibility (+/-)	Declining growth rates lead to declining prices (-)
Investing	Managerial optimism drives investment Firms make early large investments to deter entry (-)	Firms make early large investment to deter entry (-)	Obsolescencen increases relative to new investment as firms mature (-)	Void in theory (+/-)	Liquidation of assets to service debt (+)
Financing	Pecking-order theory states firms access bank debt then equity	Pecking-order theory states firms access bank debt	Focus shifts from acquiring financing to servicing debt and	Void in theory (+/-)	Focus on debt repayment and/or

Growth firms increase debt (+)	then equity Growth firms increase debt (+)	distributing excess funds to shareholders, such that mature firms decrease debt (-)	renegotiation of debt (+/-)
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RESULTS

Descriptive Statistics

The results of descriptive statistics show the mean, standard deviation, minimum, and maximum values of the research variable data. Winsorization has been applied to the research data using a one percentile level in order to eliminate extreme values (outliers) in the data.

Table 2 presents the overall descriptive statistics of the observation data, which includes 144 companies over a 10-year period, resulting in 2160 observations. It should be noted that in this study we specifically observe firms that are classified as introduction and mature firms, firms classified on other firm life cycle are eliminated.

Table 2. Descriptive Statistics

Variables	Indonesian Firms				
	Obs	Mean	Std. Dev.	Min	Max
NDBT	2,160	-0.006853	0.163470	-0.988903	0.351215
NEQY	2,160	0.005215	0.031085	-0.018212	0.239649
DINT	2,160	0.389	0.340013	0	1
DMTR	2,160	0.611	0.500110	0	1
PROF	2,160	0.1198	0.108323	-0.113621	0.553752
MB	2,160	1.137735	1.206501	0.165587	9.153221
TANG	2,160	0.597560	0.193831	0.072307	0.936857
SIZE	2,160	6.124192	0.682484	4.767850	7.793588
INDLEV	2,160	0.284683	0.136987	0.094923	0.634305
DDIV	2,160	0.497685	0.500110	0	1

Based on Table 2, it is shown that the average value of debt issuance activity by Indonesian companies in the period 2011-2020 is -0.006853. Meanwhile, the average value of equity issuance activity is 0.005215. The negative value in the average debt issuance indicates a tendency towards debt repayment during the period 2011-2020. The descriptive statistics results for the introduction cycle show an average debt issuance value of 0.0589433, while the average equity issuance value is 0.0167433. Both of these results tend to be higher compared to the average debt and equity issuance values in the overall descriptive statistics, indicating higher funding activities in the Indonesian companies' introduction cycle (Dickinson, 2011). The descriptive statistics results for the mature cycle show an average debt issuance value of -0.0274467, while the average equity issuance value is 0.0001146. In contrast to the introduction cycle, both results tend to be lower compared to the average debt and equity issuance values in the overall descriptive statistics, indicating minimal funding activities accompanied by high debt repayment obligations in the Indonesian companies' mature cycle. Table 2 displays the proportion of introduction observations at 38.9%, and mature observations at 59.76% for Indonesian companies. These values align with the non-linear prediction of the company cycle by Dickinson (2011), where companies tend to maintain their position in the mature cycle.

Table 3. Descriptive statistics Intro vs Mature

Variables	Intro		Mature	
	Obs	Mean	Obs	Mean
NDBT	864	0.0589	1296	-0.0274
NEQY	864	0.01674	1296	0.0011
PROF	864	0.06148	1296	0.15
MB	864	0.892	1296	1.33
TANG	864	0.595	1296	0.6015
SIZE	864	6.031	1296	6.17
DDIV	864	0.319	1296	0.593

Table 2 shows the average profitability value for Indonesian companies as 0.119811. In the introduction cycle, the average profitability value is 0.0614802, lower compared to the values in Table 2, while in the mature cycle, the indicated value is 0.1574071, higher compared to the values in Table 2. These results are consistent with (Alqahtani et al., 2022; Hasan et al., 2016, 2021; Hasan & Cheung, 2018), where companies in the introduction cycle tend to have lower profitability, while those in the mature cycle tend to have higher profitability.

Table 2 shows the average market-to-book value for Indonesian companies as 1.137735. The average market-to-book value for Indonesian companies in the introduction cycle is 0.8920095, while in the mature cycle, it is 1.334806. This indicates higher investor expectations in the mature cycle, with larger asset values and lower growth prospects, compared to the introduction cycle, which has smaller asset values and higher growth prospects (Dickinson, 2011). Based on this situation, it can be understood that the market-to-book value for Indonesian companies is not a precise proxy for growth opportunities. This unique phenomenon will be further discussed in the regression analysis section.

Empirical Results

In Table 4, it can be observed that based on the determinants of profitability, there are differences in the financing behavior of Indonesian companies in the introduction cycle compared to the behavior in the mature cycle, in line with the research hypothesis. In the introduction cycle, there is a significant positive relationship between profitability and debt issuance activity at the 10% significance level, and there is a significant negative relationship between profitability and equity issuance activity at the 5% significance level. Meanwhile, in the mature cycle, there is a significant negative relationship between profitability and debt issuance activity and a non-significant negative relationship between profitability and equity issuance activity. The research results indicate that the classic pecking-order theory is not relevant in predicting the relationship between profitability and capital structure usage in the introduction cycle in Indonesia but becomes somewhat relevant in predicting the relationship in the mature cycle in Indonesia.

Table 4. Regression Results

Panel Regression Model				
	Net Debt Issued		Net Equity Issued	
	Observed Coef.	Drisc/Kraay Std. Err.	Observed Coef.	Std. Err.
_cons	-0.820932***	0.112895	0.003440	0.007790
DINT	0.028000	0.029509	0.007641**	0.003183
DMTR	-0.021259*	0.011787	-0.006721***	0.002060
INTxPROF	0.486411*	0.262778	-0.079327**	0.035551
MTRxPROF	-0.188584***	0.051410	-0.015034	0.010596
MB	-0.003988	0.004583	0.001534**	0.000712
TANG	0.002063	0.043261	-0.001577	0.003960
SIZE	0.128956***	0.016379	0.001125	0.001253
INDLEV	0.086410	0.112433	-0.004775	0.005427
DDIV	0.041482***	0.008836	-0.000647	0.001621
Observations	2,160		2,160	

In the introduction cycle, it can be observed that the hierarchy of financing decision-making in companies, based on the classic pecking-order theory by Myers and Majluf (1984), tends to be irrelevant. Equity issuance tends to be done to cover internal fund deficits, and intriguingly, there is a positive relationship between profitability and debt issuance, in line with the findings of Wu and Yeung (2012). According to the concept of generalized pecking-order, when companies are confronted with information asymmetry dominated by growth opportunities, equity issuance tends to provide a positive signal, indicating the presence of a positive investment project, rather than a negative signal, indicating an overvaluation of the company's value, to investors. This can lead companies to issue equity when facing internal fund deficits, rather than debt issuance, contrary to the predictions of the classic pecking-order theory. The high of equity, as predicted by the classic pecking-order theory, do not hold when growth uncertainties dominate information asymmetry. Understanding that companies in the introduction cycle, based on the cash flow classification by (Dickinson, 2011) tend to have small asset values and high growth prospects, indicates the dominance of growth uncertainties in information asymmetry (Hasan et al., 2021; Hasan & Habib, 2017; Mashayekhi et al., 2013), in line with the generalized pecking-order concept. Thus, it is suspected that Indonesian companies in the introduction cycle will tend to use equity rather than debt to cover internal fund deficits, in line with the above research findings.

(Wu & Au Yeung, 2012) interpret the positive relationship between profitability and debt issuance as a result of the trade-off adjustment force tax shield benefit, suggesting the existence of trade-off theory in debt usage when the classic pecking-order theory based on the type of information asymmetry is less relevant. According to the concept of generalized pecking-order, companies facing growth uncertainties in information asymmetry tend to have high financing needs. (Hasan et al., 2016, 2021; Hasan & Cheung, 2018) show that companies in the introduction cycle tend to require high funding to finance their growth activities. Meanwhile, taxes reduce a company's retained earnings. When profitability increases, taxes become more significant in reducing funds that are needed by the company, retained earnings. Thus, when taxes become a significant factor, debt issuance can create a tax-efficient investment strategy due to the tax shield benefit. Apart from injecting funds into the company,

debt issuance can reduce the company's tax burden when taxes become significant due to increased profitability, leading to increased debt issuance with increasing profitability.

Considering that the responsibility for covering internal fund deficits tends to be taken over by equity issuance (companies tend to cover internal fund deficits through equity issuance when growth uncertainties dominate), the tax shield benefit tends to become a motivation for debt issuance when companies require high funding sources. This is believed to provide an explanation for Fama and French (2002) and Wu and Xu (2005) regarding the less-heard motivation of tax shield benefit in companies with high profits. The tax shield benefit is believed to motivate companies to issue debt when there is a high funding need, and when equity issuance, rather than debt issuance, is more likely to be used to cover internal fund deficits.

In summary, for companies in the introduction cycle in Indonesia, an increase in profitability leads to an increase in taxes, so debt issuance that can reduce those taxes through the tax shield benefit tends to be conducted. This is due to the high funding needs and the diminished role of debt in covering internal fund deficits, according to the generalized pecking-order concept.

Meanwhile, for companies in the mature cycle in Indonesia, a significant negative relationship is shown between profitability and debt issuance, in line with the research hypothesis, and a non-significant negative relationship is shown between profitability and equity issuance, contrary to the research hypothesis. Despite the discrepancy between the hypotheses and the research findings, both results still demonstrate that the classic pecking-order theory is somewhat relevant in explaining the financing behavior hierarchy of companies based on profitability in the mature cycle, in line with the research hypothesis. Bulan and Yan (2010) and Frank and Goyal (2003) support these research findings.

Myers and Majluf (1984) explain that due to information asymmetry, there is a hierarchy in the company's fund usage decisions, starting with internal funds, followed by debt, then equity. The concept of generalized pecking-order states that this hierarchical structure is relevant when companies tend to face information asymmetry dominated by asset-in-place, in line with the situation of companies in the mature cycle. The research findings indicate the presence of this hierarchy in fund usage for Indonesian companies in the mature cycle. Profitability in that cycle has a negative relationship with both external funding instruments, with a higher sensitivity value for debt issuance. This suggests a tendency to use debt rather than equity when companies in the mature cycle experience deficits, in line with the classic pecking-order theory by Myers and Majluf (1984). The preference for debt usage is due to the relatively lower cost of information asymmetry compared to equity usage (Myers & Majluf 1984). The option pricing theory states that external funding through debt will reduce the benefits of an investment project less than equity issuance (Myers & Majluf 1984).

The non-significant negative relationship with equity issuance and profitability in the mature cycle still depicts the relevance of the classic pecking-order theory for Indonesian companies in the mature cycle. The classic pecking-order theory suggests that companies tend to pass up investment opportunities in a project if they must issue equity due to deficits in funds for that investment.

CONCLUSION

The study on the relevance of the classical pecking-order theory in explaining the relationship between profitability and the use of corporate capital structure during the business cycle in Indonesia, based on the understanding of the concept of generalized pecking-order, conducted using data from companies listed on the Indonesia Stock Exchange from 2011 to 2020, yields the following conclusions:

1. Based on the understanding of the concept of generalized pecking-order, it is evident that the classical pecking-order theory by Myers and Majluf (1984) tends to be irrelevant in explaining the relationship between profitability and the use of corporate capital structure in Indonesia's introduction cycle. Equity issuance, rather than debt issuance, is inclined to be used to cover internal funding deficits. Debt issuance is likely motivated by tax shield benefits to reduce the tax burden on retained earnings, which increases with higher profitability. This is especially true during the introduction cycle, when companies have high funding needs and equity issuance has taken over the responsibility of covering internal funding deficits. The motivation for tax shield benefits is presumed to arise when a company faces high funding needs, and debt is no longer used to cover internal funding deficits.

2. Based on the understanding of the concept of generalized pecking-order, it is demonstrated that the classical pecking-order theory by Myers and Majluf (1984) tends to be relevant in explaining the relationship between profitability and the use of corporate capital structure in Indonesia's mature cycle. The hierarchy of funding decision-making, as per the classical pecking-order theory, is confirmed. Additionally, the tendency to refrain from equity issuance based on profitability during the mature cycle could be attributed to limited growth opportunities, resulting in minimal funding needs, or the high reluctance of Indonesian companies to issue equity due to asset uncertainties.

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