DID COVID-19 PANDEMIC INFLUENCE THE CAPITAL STRUCTURE OF HEALTHCARE FIRMS?

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Article history:

Received
14 September 2023

Revised
2 October 2023

Accepted
5 January 2024

Available online
31 May 2024

ABSTRACT

Background: The Covid-19 pandemic will have an impact on the funding strategies of companies in the health sector, as fluctuations in income will play a significant role in determining their ability to finance various activities. This phenomenon will manifest itself in the context of capital structure policy determinations.
Purpose: This study aimed to investigate the impact of COVID-19 on the capital structure behavior of healthcare companies in Indonesia.
Design/methodology/approach: Utilizing the data from fourteen companies that were listed on the Indonesia Stock Exchange for the period of 2017–2022, a panel data regression based on the Generalized Least Squares (GLS) approach was used to analyze the impact of COVID-19 and other factors on the capital structure decision. Furthermore, the partial adjustment model with the Generalized Method of Moments (GMM) estimator was employed to measure the speed of adjustment toward target leverage.
Findings/Result: We found COVID-19 had a significant impact on capital structure. Other factors that influenced the capital structure were the return on equity, current ratio, and growth. Finally, the healthcare companies in Indonesia readjusted their capital structure toward target leverage at a rapid rate. Managers of companies in the health sector can arrange considerations according to the order of funding sources, using internal funding sources first in the form of retained earnings, then debt, and if necessary, issuing equity.
Conclusion: During a crisis, the effects experienced by different sectors exhibit variations. Consequently, conducting sector analysis research during a crisis becomes crucial in order to ascertain the precise impact of specific crises on particular sectors.
Originality/value (State of the art): This research contributes to the existing literature on capital structure decision and speed of adjustment by adding the COVID-19 crisis dimension, especially when the industry play the important rule.

Keywords: capital structure, COVID-19, GLS, GMM, speed of adjustment

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INTRODUCTION

The Covid-19 pandemic around the world has created major and influential economic shocks, ranging from the macroeconomic level to the microeconomic level, including at the industrial and corporate levels, the influence of which is seen in company revenues, operating profits, and net income. However, the impact of the Covid-19 Pandemic does not affect all countries equally. The influence depends on the speed of response from the local government. In addition, some sectors have performed much better within the same economy than others, despite the severe pandemic (Vo et al. 2022).

During the pandemic, various fiscal policies were carried out to overcome problems such as health, prevent an increase in unemployment, and encourage the performance of the business sector. However, the decline in government revenue causes fiscal space to be limited. Based on the Indonesian External Debt Statistics Report (Bank Indonesia 2023), Indonesia's external debt reached its highest level in 2020. This increase in debt was triggered by high funds for handling the Covid-19 pandemic, such as purchasing medicines, vaccines, and medical devices from abroad. The high demand for various services and medical devices during the Covid-19 pandemic has also boosted the performance of health companies, but at the same time, various policies implemented during the Covid-19 pandemic have also put pressure on the company's financial performance. The growth boost in the financial performance of the health sector can be seen from the high hospital bed occupancy rate (BOR) level during the Covid-19 period and the high demand for medical devices. Based on data released by the Indonesian Ministry of Health (2021), there was a surge in the granting of distribution permits and the number of industries that produced and imported medical devices related to Covid-19 during the 2020-2021 period.

This condition underlies research on the influence of Covid-19 on the behavior of capital structure decisions carried out by health sector companies. Covid-19 causes economic uncertainty characterized by the inability to make economic predictions (Milliken 1987). Months of quarantine to reduce the spread of the virus, have had an impact on economic activity (Amanda 2021). Capital structure is a company's policy to fund its activities. Capital structure is a mix between debt and assets or debt to total asset (DTA) which is a financial ratio that shows the percentage of the company's assets to total debt (Adeoye et al. 2020; Orlova et al. 2020).

According to Hang et al. (2018), several determinant variables (Firm's specific factors) will affect the structure of capital differently from one another, this is based on the perspective of the underlying theory, in the perspective of pecking order theory, and trade-off theory. Kraus & Litzenberger (1973) state that a balance must be struck between the benefits of tax protection from debt and the costs of bankruptcy. The balance point is the point when the capital structure is optimal. If the debt ratio exceeds the optimal point, then the benefit of tax protection is less than the cost of bankruptcy causing the company's value to decrease. This theory is known as the static trade-off theory (TOT). According to the perspective trade-off theory, the size of the firm, financial performance (ROE), growth, liquidity, fixed asset ratio has a positive influence on the capital structure. Meanwhile, the non-debt tax shield has a negative relationship with the leverage (Antoniou et al. 2008; Panova 2020).

Myers (1984) challenged the static tradeoff theory. and put forward an updated version of the pecking order theory (POT) in which, there is a preference of a company manager in choosing the company's funding sources. Namely: 1) investment opportunities, 2) whether or not there are internal funding sources for the company. In a POT a company manager will choose funding sources based on the order of: 1) internal sources (retained earnings), 2) external sources (banks) and 3) equity (issuing shares). According to pecking order theory, size, financial performance (ROE), liquidity, non-debt tax shield, fix asset ratio have a negative influence on capital structure. Meanwhile, growth has a positive influence.

Several empirical research on capital structure has varying result on how the company behaves in the context of its leverage. Vo el al. (2022) examined the impact of the crisis due to Covid-19 in various countries, the results of the study concluded that SOA has increased during Covid-19 both in Book Leverage (TDA) and Market Leverage (TDM). Uddin et al. (2022) examined the determinants of capital structure in Bangladesh Stock Exchange (DSE) companies and found that factors that influenced capital structure are: liquidity, asset tangibility, company size, company age, profitability, non-debt tax shield, debt service

coverage (DSC), and effective tax rate (TR). Zeitun et al. (2017) studied the impact of the 2008 financial crisis on the capital structure of 270 companies in eight Gulf countries during the period 2003-2013. They found that the average speed of adjustment towards the target capital structure was slower after the crisis, which was explained by reduced credit supply due to the financial crisis.

İn emerging market contexts, like Indonesia, the study on capital structure at the firm's specific industry conducted by Indomo and Lubis (2032) in the property sector, Susanto et al. (2021) in the mining company, and Sutomo (2019). At the level of industry, the studies presented by Cahyono and Chawla (2019), Utami at al. (2021), and Warmana at al. (2020). As far as our knowledge there is no research has been conducted to examine the behaviour of capital structure in the healthcare sector. Our current study contributes to the literature in two ways: first, this study investigated the behavior of the capital structure in the healthcare sector as a key sector in the pandemic Covid-19, and second, our study employed both static and dynamic approaches in the analysis.

Against the previous background, this research aimed to examine the potential impact of the Covid-19 pandemic on the particular capital structure behavior of the health sector industry that has been listed on the Indonesia Stock Exchange. This study focuses on two key aspects of capital structure behavior. Firstly, the impact of the Covid-19 pandemic and various factors on the capital structure. Secondly, the speed of adjustment (SOA) towards the target leverage of healthcare firms.

METHODS

In January 2023 there were 30 health sector companies listed on the IDX. Of these, screening was carried out on companies that already had audited financial data from 2017-2022 and companies that recorded complete financial statements. From the screening results, 14 public companies in the health sector were found to be the object of research.

The dependent variable is the company's capital structure, whereas a proxy to analyze the capital structure is Total Debt to Assets (DTA) where DTA is long-term debt and short-term debt divided by total assets. The independent variables of the study consist of the influence of Covid -19 (dC0V), and the company-specific factors of capital structure, namely: company size (SIZE), performance (ROE), growth (GROWTH), liquidity (CR), non-debt tax shield (NDTS), fixed asset structure (FAR). The period before Covid was from 2017-2019 and the period during Covid was from 2020-2022. The definition for each variable was presented in Table 1.

Based on our study goals, there are three main hypotheses in this study, namely:

H1: Covid-19 has a positively significant impact on the capital structure of healthcare firms

H2: Firms-specific factors significantly impact on capital structure of the healthcare company

H3: There is a speed of adjustment toward the target leverage of the healthcare firms

Table 1. Definition of the independent variable

Variable	Formula
SIZE	SIZE = Ln Total Asset
ROE	ROE = (Net Profit/BE) x 100
GROWTH	GROWTH= $((sale_t - sale_{t-1})/sale_{t-1})$ x 100
CR	Current Ratio=(Current Asset/Current Liability) x 100
NDTS	NDTS=((Derpeciation+Amortitation)/Total Asset) x100
FAR	Fixed Asset Ratio=(Fixed Asset/Total asset) x 100
dCOV	Dummy variable, 1 = Covid periode, 0= before Covid

In order to answer this study's goals, we follow Hardiyanto (2014) in employing both static and dynamic panel estimation techniques. This research conducted various static techniques, namely pooled ordinary least squares (PLS), random effects (RE) model, fixed effects (FE) model, and generalized least squares (GLS). The selection between cross-sectional pooled ordinary least squares (OLS) and the random effects (RE) model can be determined through the application of the Breusch-Pagan Lagrange Multiplier (LM) test, which assesses the null hypothesis that random effects do not exist. The rejection of this hypothesis would suggest that the utilization of the cross-sectional pooled ordinary least squares (OLS) methodology is unsuitable. The Hausman specification test is employed to select between the RE and FE models by testing the null hypothesis that RE is both consistent and efficient. Similarly, in the event of the null hypothesis being refuted, the outcomes of the fixed effects model's estimation will be considered more resilient.

According to Wooldridge (2009), the GLS method exhibits resilience towards initial autoregressive problems in balanced panels, as well as cross-sectional correlation and/or heteroscedasticity across panels. According to the authors, the GLS model is a more suitable approach as it considers the issues present in the data, such as normality and homoscedasticity. The Generalized Least Squares (GLS) model is a modified version of the Ordinary Least Squares (OLS) model that is better suited for normal data (Gujarati, 2003). GLS estimations are particularly advantageous for datasets that exhibit the presence of serial correlation and/or heteroscedasticity. The regression model of capital structure in the static panel data framework can be expressed as follows:

$$DTA_{i,t} = \alpha + \beta_1 SIZE_{i,t} + \beta_2 ROE_{i,t} + \beta_3 GROWTH_{i,t} + \beta_4 CR_{i,t} + \beta_5 NDTS_{i,t} + \beta_6 FAR_{i,t} + \beta_7 COV_{i,t} + e_{i,t}$$

This study also employed the Partial Adjustment Model (PAM) to investigate the implementation of SOA. The PAM model is a reference to the model proposed by Flannery and Rangan in 2006. The study's capital structure target can be expressed as a linear function of its independent variables, as represented by the following equation:

$$TL_{i,t} = \sum_{i=1}^{n} \beta k V_{kit} + \mu_{i,t} \quad (1)$$

The equation presented involves the target capital structure of firm i at time t, denoted as ($TL_{i,t}$). This target capital structure is influenced by a vector of firm characteristics (V_{kit}), which serves as the independent variables. The coefficients of each variable are represented by β_k, while the error term is denoted as $\mu_{i,t}$. In a scenario where there are no adjustment costs and the market is perfectly competitive, a company will promptly and comprehensively adapt its capital structure to align with the target leverage ($TL_{i,t}$) in response to any changes in the independent variable. This will enable the company to maintain an optimal capital structure. Consequently, it can be inferred that the capital structure that is observed ($OL_{i,t}$) will consistently align with the target capital structure ($TL_{i,t}$). Stated differently, the value of $OL_{i,t}$ is equivalent to the value of $TL_{i,t}$. The aforementioned statement can be construed as follows: In the event of a modification in the capital structure of the prior period ($OL_{i,t-1}$), the alignment towards the target leverage will correspond to that of the previous period. This can be mathematically represented as:

$$OL_{i,t} - OL_{i,t-1} = TL_{i,t} - OL_{i,t-1} \quad (2)$$

In practice, it is impossible for a company will fully conform to its target leverage within a single period, as there are associated adjustment costs that must be taken into consideration. As a result, the company chooses partial adjustments instead. This event results in a disparity between the target capital structure ($TL_{i,t}$) and the extant or perceived capital structure ($OL_{i,t}$). The mathematical expression can be represented in the form of an equation:

$$OL_{i,t} - OL_{i,t-1} = \lambda_{i,t} (TL_{i,t} - OL_{i,t-1}) \quad (3)$$

$$OL_{i,t} = OL_{i,t-1} + \lambda_{i,t} (TL_{i,t} - OL_{i,t-1}) \quad (4)$$

$$OL_{i,t} = OL_{i,t-1} + \lambda_{i,t} TL_{i,t} - \lambda_{i,t} OL_{i,t-1} \quad (5)$$

$$OL_{i,t} = OL_{i,t-1} - \lambda_{i,t} OL_{i,t-1} + \lambda_{i,t} TL_{i,t} \quad (6)$$

$$OL_{i,t} = (1 - \lambda_{i,t}) OL_{i,t-1} + \lambda_{i,t} TL_{i,t} \quad (7)$$

By substituting equation (1) into equation (7), the resulting expression can be obtained:

$$OL_{i,t} = (1 - \lambda_{i,t}) OL_{i,t-1} + \lambda_{i,t} \sum_{i=1}^{n} \beta k V_{kit} + \mu_{i,t} \quad (8)$$

The target leverage is influenced by the specific characteristics of the company which in this study are company size (SIZE), company performance (ROE), growth (GROWTH), liquidity (CR), non-debt tax shield (NDTS), fixed asset structure (FAR). and Covid-19 (dCOV). Equation (8) can be rewritten as:

$$OL_{i,t} = (1- \lambda_{i,t})OL_{i,t-1} + \lambda_{i,t}\beta_1 SIZE_{i,t} + \lambda_{i,t}\beta_2 ROE_{i,t} + \lambda_{i,t}\beta_3 GROWTH_{i,t} + \lambda_{i,t}\beta_4 CR_{i,t} + \lambda_{i,t}\beta_5 NDTS_{i,t} + \lambda_{i,t}\beta_6 FAR_{i,t} + \lambda_{i,t}\beta_7 COV_{i,t} + \mu_{i,t}$$

If $(1- \lambda_{i,t})$ replaced by β_0 and $\lambda_{i,t}\beta_k$ replaced by β_k, equation (9) can be rearranged as:

$$OL_{i,t} = \beta_0 OL_{i,t-1} + \beta_1 SIZE_{i,t} + \beta_2 ROE_{i,t} + \beta_3 GROWTH_{i,t} + \beta_4 CR_{i,t} + \beta_5 NDTS_{i,t} + \beta_6 FAR_{i,t} + \beta_7 COV_{i,t} + \mu_{i,t}$$

The SYS-GMM suggested by Blundell and Bond (1998) was used to accomplish the second study's goal. Ordinary least squares (OLS) overlook time-invariant unobserved individual effect (i) and endogeneity of $OL_{i,t-1}$, which may prevent it from producing efficient and consistent estimators in a dynamic model like Equation 10. Even though the FEM deals with the endogeneity of $OL_{i,t-1}$, it also results in inconsistent parameters if T is fixed regardless of the magnitude of N. For OLS and FEM, the estimated results would, respectively, have an upward and a downward bias on the lagged dependent variable. The SYS-GMM system consists of two simultaneous equations, one in first differences and the other in levels. As a result, the level equation can use the lagged first differences as instrumental variables while the first-differenced equation can use the lagged levels of explanatory variables as instruments (Nguyen, 2015). More than its predecessor, the Diff-GMM, Blundell and Bond (1998) demonstrated the effectiveness of the SYS-GMM.

RESULTS

Based on Table 2, the average value of debt to total assets (SDTA) is 36.0. The minimum value was 8.31 and the maximum value was 94.37. Company performance (ROE) has a wide range between the maximum value and the minimum value. The lowest value of ROE is -496% and the highest is 36%; the average company performance based on ROE is 4%. For liquidity, the company's average CR is 2.9, or 290%. With the lowest value of 38% and the highest of 873%. The average company growth is 10.8 percent, the lowest value is -60% and the highest is 127%. From the description of the capital structure determinant variables, it can be seen that there are variations in each company.

The impact of COVID-19 and other factors on capital structure

The selection of the best model for DTA, between PLS and FEM can be seen by the results of the F test of the FEM model in Table 3, which states H0; all u i = 0, with a value of 7.24 and a significant probability at a significant level of 0.001. Therefore, reject H0, and there is individual heterogeneity, the FEM model can be better. To choose between the FEM and REM models, the Hausman test was carried out with H0; the difference in the coefficients is not systematic. The results of the Hausman test show that the probability value of chi2 is 0.0001, which is less than the significance level of 0.05, so FEM models are better. Then a Lagrangian Multiplier (LM) test was carried out to determine the difference between the PLS and REM models, with the conclusion that the REM model was better, this can be seen from the significant P value at the 0.001 significance level from the LM test results.

Table 2. Descriptive statistics of variables

Variable	N	Mean	St. Dev	Min.	Max.
DTA	84	36.01321	20.34874	8.31	94.37
ln_SIZE	84	28.83393	1.115136	25.8	30.94
ROE	84	4.495357	56.23544	-496.23	36.87
CR	84	291.198	203.5417	38.41	873.78
NDTS	84	3.12	1.694425	0.87	10.21
GROWTH	84	10.89512	23.89407	-60.57	127.3
FAR	84	39.96619	17.2859	14.78	92.27

Table 3. The result of static panel regression

Independent variable	PLS	FEM	REM	GLS
		Coef.		
ln_SIZE	-3.20*	13.58***	-1.06	-1.13
ROE	-0.10***	-0.06**	-.068**	-0.07***
CR	-.07***	-0.03*	-0.06***	-0.05***
NDTS	-3.14***	1.51	-1.84	-1.25
GROWTH	0.09	0.03	0.06	0.08**
FAR	-0.05	0.08	0.01	-0.12
dCOV	0.49	-4.57	0.17	1.40*
Const.	158.37***	-351.86**	88.83	85.67*
F Wald test	21.97***	5.69***	56.59***	148.06***
F test that all u_i=0		7.24 ***		
Hausman test	P >chi2 = 0.0001			
Lagrangian multiplier test for random effects	9.27***			
Modified Wald test for groupwise heteroskedasticity	P>chi2 = 0.00			
Wooldridge test for autocorrelation in panel data	Prob > F = 0.0196			

*) sig at 0.05 **) sig at 0.01 ***) sig at 0.001

The estimation results from the PLS, FEM, and REM regression models have problems with autocorrelation and heteroscedasticity. This can be seen from the results of the Wooldridge test for autocorrelation in panel data with a p-value less than 0.05, which is 0.0196, and the Modified Wald test for groupwise heteroskedasticity, with a p-value less than 0.05, which is 0.00. It can be concluded that the regression model has problems with autocorrelation and heteroscedasticity. Thus, estimation is carried out using the GLS model. Estimation using the GLS model produces the highest F Wald test value among other models of 148.06 and is significant at the 0.001% significance level. This shows that the independent variables used in the panel data regression model jointly affect DTA.

Covid-19 was a variable that describes the external conditions of the company in this study. The Covid-19 situation starts in 2020 and lasts until 2022 (3 years). While the period before Covid-19 in this study was from 2017 to 2019. Covid-19 has had a significant effect on DTA (debt to total assets). The dCOV coefficient value is 1.40 and significant at 0.05 level. The condition of Covid-19 had an impact on increasing DTA by 1.40. The results support the argument that Covid-19 has affected DTA. The results of this study are also supported by findings in research conducted by Gao and Tsusaka (2023), Covid-19 was a health crisis condition which has an impact on economic uncertainty has a positive and significant influence on the total debt ratio.

In the DTA model, the ROE coefficient is -0.07 and is significant at the 0.001 significance level. Therefore, the hypothesis in which company performance (ROE) has a significant effect on DTA, can be accepted. The ROE coefficient shows that if the company's performance increases by 1 unit, ceteris paribus, it will reduce the ratio of debt to total assets by 0.07. The same finding can be seen in the research conducted by Gharaibeh and Al-Tahat (2020) on companies in Jordan, where company performance has a negative and significant effect on leverage. The negative relationship between ROE and capital structure is also supported by various studies, such as Albayrak (2019), Iqbal et al. (2019), and Yousef (2019).

The growth coefficient is 0.08, which is significant at the 0.01 level. It can be concluded that the company's growth positively has a significant impact on DTA. The growth coefficient can be interpreted as follows: with increasing a unit of growth, ceteris paribus, DTA will increase by 0.08. For both non-financial and financial enterprises, growth and leverage have been found to be positively connected by a number of writers (Khaki & Akin, 2020; Sibindi and Makina, 2018). Thus, when owned resources are insufficient or tax shelters are advantageous in terms of making financial decisions, leverage frequently emerges as a natural resource.

The CR coefficient is -0.05 and is significant at the 0.001 level. The effect of CR on DTA is negative. The research shows that liquidity has a significant impact

on DTA. The model can be interpreted as if there is an increase in liquidity by 1 unit, ceteris paribus, the DTA will decrease by 0.05. Pham and Hrdý (2023) examined the relationship between liquidity and capital structure and found a negative and significant relationship between liquidity and the three measures of capital structure.

Speed Of Adjustment Toward Target Leverage

The alternatives to dynamic panel data regression models used include Pooled Least Square (PLS), Fixed Effect Model (FEM), First Difference Generalized Method of Moment (FDGMM), and System Generalized Method of Moment (SysGMM). The recapitulation of the dynamic model estimation results for the dependent variable DER can be seen in Table 4.

The PLS coefficient value is 0.63 and is above the FEM parameter value, which is 0.27. While the value of the SysGMM coefficient of 0.30 is between the FEM and PLS parameters (L1.DTA = PLS > Sys GMM >FEM; 0.63 > 0.30 > 0.26). The FDGMM model produces negative and insignificant estimation values. The estimation results with the SysGMM model are supported by the Sargan test with a p-value of 0.9992. This also means that the instruments used in the SysGMM model are valid (do not reject H0; the instruments used are valid). The autocorrelation test was carried out by the Arrelano-Bond test showing that there was no autocorrelation with a p-value of 0.58360 indicating that H0 was rejected (there was no autocorrelation). The results of the F/Wald chi test from the SysGMM model yield an F value of 1193.98 which is far greater than the FEM and PLS models. This supports the use of the SysGMM model more efficiently and better than FEM and PLS.

From the estimation results of DTA SysGMM, the model shows the SOA rate against DTA targets is 1-0.30 = 0.70 or 70% per year. This value means that the company closes the 70% gap between the current DTA level and the desired DTA level in one year. It can also be interpreted, for companies in the health industry listed on the IDX, it takes an average of 1 year and 4 months to adjust the current DTA level to the targeted DTA. The estimation results using the SysGMM model show two variables that are statistically significant and influence SOA toward DTA. The variables are company performance (ROE) which has a negative relationship, the ROE coefficient value is -0.04; and liquidity (CR) which has a negative relationship to SOA, the coefficient value is -0.05.

Table 4. The result of dynamic models

Independent variable	FDGMM	SysGMM	FEM	PLS
		DTA		
L1. DTA	-0.16	0.30*	0.26*	0.63***
ln_SIZE	11.39	-4.83	10.20*	-1.44
ROE	-.045***	-0.04*	-0.06**	-0.06**
CR	-.06*	-0.05*	-0.05*	-0.04***
NDTS	2.58	4.55	1.98	-0.93
GROWTH	0.05	0.05	0.03	0.07
FAR	0.21	-0.07	0.06	-0.06
dCOV	-4.13	0.31	-4.95	-1.66
Const.	-283.93	163.42	-260.71	71.88*
Dynamic parameter (L1.DER)	L1.DTA = PLS > Sys GMM >FEM ; 0.63 >0,30>0,26			
F Wald test	289.02***	1193.98***	5.02***	40.36***
F test that all u_i=0	Prob > F = 0.0492			
Sargan test of overidentifying restrictions	0.9992			
Arellano-Bond test for zero autocorrelation	0.5836			

*) sig at 0.05 **) sig at 0.01 ***) sig at 0.001

This result was compared to research conducted by Chua et al. (2021) concluded that of the 4 countries that were the object of research: Malaysia, Singapore, Indonesia, and Thailand. SOA for DTA was; 29%, 41%, 38%, and 33%. From these results, it can be concluded that Singapore has the fastest SOA against DTA.

According to research by Cahyono and Chawla (2019) on differences in SOA between sectors in public companies on the Indonesia Stock Exchange. SOA from various sectors on the IDX based on this research can be concluded that the SOA of the capital structure is different in each sector. This is due to the different characteristics of the industry, so the adjustment costs to achieve the optimal capital structure are also different. The fastest sector in making adjustments to the capital structure target is the trade, services, and investment sector, at 48.32%, followed by the consumer goods sector at 47.67%, and the sector was the slowest in making adjustments to the capital structure target is the infrastructure sector, at 2600%.

Managerial Implication

Managers of companies in the health sector can arrange considerations according to the order of funding sources, using internal funding sources first in the form of retained earnings, then debt, and if necessary, issuing equity. Company managers can optimize the benefits of the non-debt tax shield by charging fixed assets as a source of long-term and short-term investment financing for the company; this will also have implications for reducing the debt ratio and reducing bankruptcy costs. From the SOA aspect, companies in the health industry with a higher value than the average of other industries indicate that the company is quicker to adjust the optimal capital structure, which will increase the value of the company. For investors, an analysis that is specific to one industry will help them compare the performance of one company with other companies in the same sector. This will make it easier for investors to determine which companies have better prospects when making investment decisions. Research in one industry sector is also beneficial for mutual fund managers in diversifying their portfolios. Knowing the capital structure and SOA of companies in one sector will help determine which company has the most optimal value.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

COVID-19 had a positive and significant effect on the capital structure, namely total debt to total assets (DTA). The other factors that have a negative and significant effect on capital structure are company performance and liquidity. The factor that positively affects the capital structure is company growth. There is a speed of adjustment (SOA) to the target capital structure of public companies in the health sector. The magnitude of the SOA value toward the capital structure target is 70% per year.

The result of this study shows in making capital structure decisions, public companies in the health sector are in accordance with the *pecking order theory* (POT). Therefore, companies in the health industry can arrange considerations in the order of funding sources, namely by using internal sources of funds first in the form of retained earnings, followed by debt and if needed in the form of equity/share issuance.

Recommendations

The health sector encompasses various subsectors, including the pharmaceutical industry, health services, and laboratories. Hence, it is recommended to pursue additional studies on various dimensions of capital structure within each sub-sector in order to facilitate comparisons among different sub-sectors.

FUNDING STATEMENT: This research did not receive any specific grant from public, commercial, or not-for-profit funding agencies.

CONFLICTS OF INTEREST: The author declares no conflict of interest.

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