Comparative Analysis of Capital Structure and Profitability During the COVID-19 Pandemic on Telecommunication Companies in the Indonesian Stock Exchange

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Abstract. This study examined the comparative analysis of capital structure and profitability during the COVID-19 pandemic. In knowing the extent of the benefits obtained by a company, it can be seen from the financial performance, especially in the capital structure as measured by the Debt-to-Equity Ratio and Debt-to-Asset Ratio. The capital structure will affect the profitability measured by the Return on Equity because the maximum use of debt will reduce interest payments since the company is required to pay higher interest. In the profitability calculation, the level of profit obtained from the company during the COVID-19 pandemic can be found. The purpose of this study was to find out the comparison and the influence between capital structure and profitability. This study used a telecommunication company listed on the Indonesian Stock Exchange over the period of 2017–2021. The type of data used was secondary data. The results of this study showed that capital structure was measured by the Debt-to-Equity Ratio the and Debt-to-Asset Ratio revealed a negative effect on profitability measured by Return on Equity.

Keywords: Capital Structure · Debt to Asset Ratio · Debt to Equity Ratio · Profitability · Return on Equity Ratio

1 Introduction

The COVID-19 pandemic still becomes a problem for all economic sectors around the world, including Indonesia. This case firstly occurred in Wuhan, China on November 17, 2019, which spread rapidly throughout the world. In Indonesia itself, this case firstly appeared on March 2, 2020 [1]. As time goes by, the COVID-19 cases are increasing rapidly. Then, in order to anticipate the increasing spread of this virus, the Indonesian government has made various efforts in order to accelerate the handling of COVID-19 virus, starting from Large-Scale Social Restrictions (PSBB) until the Enforcement of Restrictions on Community Activities (PPKM) such as closing the schools and the local businesses, the restriction of people mobilization, and the restriction on international trip [2].

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Therefore, all educational elements such as students, teachers, and lecturers carry out a new learning method which is learning from home method. Besides that, the company also enforces work from home (WFH) rules. It makes people need providers who can provide fast internet speed, because the learning and work system is carried out from home with the level of success and sustainability depending on the internet network. It certainly makes telecommunications companies in Indonesia experience a high increase. Based on the data released by the Central Statistics Agency, the telecommunications sector grew by 10.85 percent in April–June or in the second quarter of 2020 (Q2 2020), if compared to the same quarter last year (Q2 2019) [3].

As a result of this increase, it was interesting to examine the extent of profitability obtained by telecommunications companies in Indonesia, which can be seen from their financial performance, especially in the capital structure. The main purpose of the company is to seek the maximum profit that is useful for the sustainability of the company. Profitability is the ability of a company to generate excess investment value compared to the costs incurred in a certain period [4]. Where profitability is used as the basis for assessing an aspect of financial performance, profitability is a benchmark and success in using capital as a productive ability. If the company wants to maximize its profitability, then the company can take advantage of the resources that must be obtained, a place to obtain capital, and good planning regarding the capital obtained where these things will a profitability for a company.

After the profitability is achieved, it can predict whether the company's capital structure is optimal or not. This of course must be realized by the company because it can ensure the business it manages when the company's capital structure is optimal. One way to increase the profitability of a company is to assess the state of its capital structure [5].

Capital structure is a comparison or combination of debt and own capital it has [6]. Capital structure analysis is very important for companies, because the benefits of capital structure directly affect the company. As well as evaluating the long-term risks and prospects of income generated when carrying out its activities. Because the higher the ratio in the capital structure, the higher the cost of borrowing and interest expense.

Table 1 shows the development of liability, equity and profitability at PT Telkom Indonesia, PT XL Axiata and PT Indosat sourced from the Indonesia Stock Exchange.

According to the data from the Indonesia Stock Exchange, it is known that during the pandemic in 2020, companies engaged in telecommunications sectors such as PT Telkom Indonesia and PT XL Axiata experienced an increase in liabilities, equity and assets, while PT Indosat experienced an increase in liabilities but suffered a decrease in equity and assets. Meanwhile, during the COVID-19 pandemic, only PT Telkom Indonesia has increased its profitability, while PT XL Axiata and PT Indosat have suffered a very significant decrease.

This research is based on previous research, both from the type of research and the theory used. According to [7–10] capital structure had a positive effect on profitability, while this research is contrary to research conducted [4, 5, 11, 12] which state otherwise.

The difference in results from previous researchers made it interesting to fill the gap and knowing how capital structure affects profitability. The difference between this study and the prior research is the location of the study and the variables.

Table 1. Development of Liability, Equity, Asset and Profitability

Year	Description	TLKM	EXCL	ISAT
2020	Liability	126.054.000	48.607.431	49.865.344
	Equity	120.889.000	19.137.366	12.913.396
	Asset	246.943.000	67.744.797	62.778.740
	Profitability	25.986.000	345.176	−771.571
2019	Liability	103.958.000	43.603.276	49.105.807
	Equity	117.250.000	19.121.966	13.707.193
	Asset	221.208.000	62.725.242	62.813.000
	Profitability	25.400.000	725.857	1.568.991

Based on the background and some consideration above, it can be seen that the research problems are as follows:

(1) How is the comparison of the capital structure and profitability on Telecommunication Companies in Indonesia?
(2) Is there any effect between capital structure and profitability on Telecommunication Companies in Indonesia?

Capital structure is a comparison between short-term and long-term liability with the company's equity [6, 13, 14]. In a company, capital is one of the fundamental things in the operational function of a company. Without capital, a company cannot exist because there will be no funds that can be used to carry out its operational activities. One of the goals in strategic management is to identify the optimal capital structure when debt and equity combined in an effort to reduce the cost of capital and increase the company's profitability.

Meanwhile, for measuring the level of capital structure, the Debt-to-Equity Ratio (DER) and Debt-to-Asset Ratio (DAR) can be used. DER is a ratio used to assess the comparison between total debt and equity owned by a company [15]. DAR is the ratio of the total debt of a company to company's assets [11]. The high value of this ratio shows the company's burden on outsiders will affect the company's profitability because if the company has a high debt to outsiders, then the company's profitability will decrease because it is required to pay loan installments and credit interest. This means that if debt is greater than own capital, this ratio has a value greater than 1, which means there will be more debt in carrying out operational activities.

Modigliani and Miller's theory suggests that companies must use maximum debt in their capital structure to reduce interest payments [7]. Thus, it can be seen that the maximum use of debt can reduce tax payments because the company is required to pay higher interest. This will certainly have an impact on the level of profitability.

H1: Capital structure variable debt to equity ratio has a negative effect on profitability return on equity.

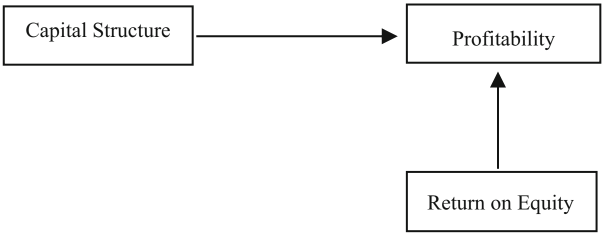

Fig. 1. Conceptual Framework

Profitability is a company's ability to generate a profit through company activities such as sales, investments, or assets that are used productively by that company [5, 12, 16]. Next, for measuring the level of profitability, the Return on Equity Ratio (ROE) can be used. ROE is the ability of companies in generating profits from their equity [4]. It is beneficial for a company because it enables company owner to find out the level of profits obtained by the company by using their equity. In addition, ROE is also a measuring tool used to see how far the company can use its equity in order to get maximum profit. The high level of profitability shows good prospects for the company and can encourage investors to participate in increasing demand for shares, which of course can have an impact on increasing the value of the company.

H2: Capital structure variable debt to asset ratio has a negative effect on profitability return on equity.

Based on the literature review and previous research, the framework of this research can be seen in Fig. 1.

Based on Fig. 1, it can be seen that the independent variable is the capital structure as measured by the debt-to-equity ratio and debt-to-asset ratio. While the dependent variable is profitability measured by using the return on equity ratio.

2 Methods

The research method used in this study was mix methods with a quantitative approach method. The source of this research data was obtained from secondary data or the data that is not obtained directly but through the related parties, namely Indonesia Stock Exchange from the 2017–2021. The firm used in this study was telecommunication sector listed in an Indonesia Stock Exchange website (www.idx.co.id), there are PT Telkom Indonesia, PT XL Axiata and PT Indosat.

The variables used in this study consisted of the dependent variable and the independent variable. For the independent variable the ratio used was DER and DAR. For the dependent variable the ratio used was ROE sourced from financial statements. The variables used in the study have been computed as:

$$DER = \frac{\text{Total Liability}}{\text{Total Equity}} \times 100\% \tag{1}$$

$$\text{DAR} = \frac{\text{Total Liability}}{\text{Total Asset}} \times 100\% \tag{2}$$

$$\text{ROE} = \frac{\text{Profitability}}{\text{Total Equity}} \times 100\% \tag{3}$$

The regression model to study the effect of capital structure on profitability is as follows:

$$\text{ROE} = \alpha + \beta 1\ \text{DER} + \beta 2\ \text{DAR} + \text{€} \tag{4}$$

The significance test of overall multiple regression models was made through the R square, F-test and T-test significant at 0.05 level.

3 Results and Discussions

This section consists of two subsections that briefly explain the theory and research on capital structure and profitability at telecommunications companies in Indonesia.

3.1 The Comparison of Capital Structure and Profitability

Capital structure analysis is very important for a company because the quality of the capital structure will have a direct effect for the company, namely the level of profitability because if the company has a high dependence on outside parties, the company's profitability will decrease. Table 2 describes the capital structure and profitability owned by PT Telkom Indonesia, PT XL Axiata, and PT Indosat.

Table 2 shows the comparison of capital structure and profitability. The result of the COVID-19 pandemic in 2020 showed that the telecommunications companies in Indonesia had a significant increase on liabilities. These companies added liabilities in long-term liabilities. It certainly causes these companies experienced an increase in debt to equity. While for profitability, two of these telecommunication companies suffered a very significant decline in revenue. However, in 2021, the companies have been able to adapt to the COVID-19 pandemic. There are some increases in liabilities, equity, assets and profitability (Tables 3, 4, 5 and 6).

PT Telkom Indonesia in its operational activities experienced changes in its capital structure. Before the pandemic came to Indonesia or more precisely in 2019, this company relied more on equity compared to liabilities. While in operational activities at PT XL Axiata and PT Indosat both before the pandemic came to Indonesia and when the pandemic was already underway, this company had relied on its liabilities when compared to its equity.

3.2 The Effect of Capital Structure on Profitability

This study examined the effect of capital structure such as DER and DAR on profitability such as ROE during the COVID-19 pandemic over the period of 2020–2021. First,

Table 2. The Comparison of Capital Structure and Profitability

Description		TLKM	EXCL	ISAT
2021	Liability	131,785,000	52,664,537	53,094,346
	Equity	145,399,000	20,088,745	10,302,802
	Asset	277,184,000	72,753,282	63,397,148
	Profit	33,948,000	1,287,807	6,860,121
	DER	90.64	262.16	515.34
	DAR	47.54	72.39	83.75
	ROE	23.35	6.41	66.59
2020	Liability	126,054,000	48,607,431	49,865,344
	Equity	120,889,000	19,137,366	12,913,396
	Asset	246,943,000	67,744,797	62,778,740
	Profit	29,563,000	371,598	−630,160
	DER	104.27	253.99	386.15
	DAR	51.05	71.75	79.43
	ROE	24.45	1.94	−4.88
2019	Liability	103,958,000	43,603,276	49,105,807
	Equity	117,250,000	19,121,966	13,707,193
	Asset	221,208,000	62,725,242	62,813,000
	Profit	27,592,000	712,579	1,630,372
	DER	88.66	228.03	358.25
	DAR	47.00	69.51	78.18
	ROE	23.53	3.73	11.89
2018	Liability	88,893,000	39,270,856	41,003,340
	Equity	117,303,000	18,343,098	12,136,247
	Asset	206,196,000	57,613,954	53,139,587
	Profit	26,979,000	−3,296,890	−2,085,059
	DER	75.78	214.09	337.86
	DAR	43.11	68.16	77.16
	ROE	23.00	−17.97	−17.18
2017	Liability	86,354,000	34,690,591	35,845,506
	Equity	112,130,000	21,630,850	14,815,534
	Asset	198,484,000	56,321,441	50,661,040
	Profit	32,701,000	375,244	1,301,929

(*continued*)

Table 2. (*continued*)

Description		TLKM	EXCL	ISAT
	DER	77.01	160.38	241.95
	DAR	43.51	61.59	70.76
	ROE	29.16	1.73	8.79

Table 3. Descriptive Statistics

	Min	Max	Mean	Std. Deviation
DER	90.64	515.34	268.7583	163.47937
DAR	47.54	83.75	67.6517	14.94810
ROE	−4.88	66.59	19.6433	25.80990

Table 4. Model Summary (R Square) Results

R	R Square	Adjusted R Square	Std. Error of the Estimate
.856[a]	.733	.555	17.21121

Table 5. Annova (F-test) Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	2442.079	2	1221.040	4.122	.138[b]
Residual	888.677	3	296.226		
Total	3330.756	5			

Table 6. Coefficients (T-test) Results

Model	Unstandardized Coefficients		Stand. Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	190.023	72.721		2.613	.079
DER	.419	.147	2.655	2.855	.065
DAR	−4.184	1.606	−2.423	−2.605	.080

the descriptive analysis, which is followed by R square, F-test and T-test, is multiple regression.

The average of debt to equity for telecommunication's company in Indonesia is 268 and it ranges from a minimum 90.64 to a maximum of 515.34. This means debt proportion is bigger than the equity. The mean value of total debt of a company to company's assets is 67.65 with a range having a minimum 47.54 and a maximum of 83.75. The average ability of companies in generating profits from their equity is 19.64 and it ranges from a minimum −4.88 to a maximum of 66.59 in 2020–2021.

Determination coefficient value in adjusted R square is 0.555, which means that the pooled independent is DER and DAR along with the dependent variable is ROE about 55.5% of total variance in the value of ROE. Thus, remaining 44.5% of the total variance in the value of ROE is due to other factors.

The value of F in the model found is 0.138 significant at 0.05 level of significance. Thus, the significance value is $0.0138 > 0.05$. It can be inferred that DER and DAR have a negative relationship on ROE during the COVID-19 pandemic.

With the significant at 0.05 level of significance, it can be concluded that the significance value for DER is 0.065 which is more than the significance level $0.065 > 0.05$. It can be inferred that DER has a negative relationship on ROE. The significance value for DAR is 0.080. Which is more than the significance level $0.080 > 0.05$. It can be inferred that DAR does not have a significant effect on ROE.

This result shows that both DER and DAR do not have influence on ROE during the COVID-19 pandemic in telecommunication company listed on the Indonesian Stock Exchange over the period of 2020–2021. Where in this conclusion, it can be seen that this research is in line with research conducted by [4, 5, 11, 12].

4 Conclusions

All in all, based on the research about Comparative Analysis of Capital Structure and Profitability during the COVID-19 Pandemic on telecommunications companies in Indonesia, it can be concluded that the capital structure of PT Telkom Indonesia had an increase in liabilities, assets, equity and profitability during the pandemic situation, PT XL Axiata had an increased in liabilities, assets and equity, but had decreased profitability and PT Indosat had an increase in liabilities but it suffered a decrease in assets, equity and profitability in 2020. However, in 2021, it had increased in liabilities, equity, assets and profitability because the companies have been able to adapt to the COVID-19 pandemic. As for the effect of capital structure on profitability, it was found out that DER and DAR had a negative effect on ROE during the COVID-19 pandemic in telecommunication company listed on the Indonesian Stock Exchange over the period of 2020–2021.

Based on the findings, it is recommended for the telecommunication companies that in carrying out its operational activities, the capital structure owned by a company will be much better if it has its equity which is much larger than the liabilities so that the capital structure owned will lead to a better direction. Therefore, a company needs to add its equity. Most people will do various activities at home during this pandemic. Then, it is necessary to give special prices or promos to attract public interest in these providers/companies. Those three companies have to support customer needs in terms of installing Wi-Fi such as the easiness of purchase, signal speed, and competitive prices.

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