

## THE ABILITY OF FIRMS LEVERAGE ON TOURISM SECTOR TO SURVIVE DURING THE PANDEMIC

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### ABSTRACT

*The development of tourism industries in Indonesia has been heavily hit by the COVID-19 pandemic since early 2020 which has caused an unprecedented crisis in this sector. As a result, there is an increase in the average debts in this sector to maintain the long-term stability of firms. This study aims to examine the difference in firm value affected by the firm leverage, by comparing the year 2019 before the pandemic with the year 2020 period during the pandemic occurred. The data were collected through datastream and the [www.idx.co.id](http://www.idx.co.id) website. The samples were selected using the purposive sampling method with the final samples being 39 companies per year. To measure the leverage variable, debt ratio, time interest earned, and debt-equity ratio were employed, while the firm value variable was processed using Tobin's Q. Furthermore, the data obtained were analyzed using SPSS version 26. Using primary and secondary data, the study reveals that the level of leverage before and during the pandemic demonstrates an unsubstantial difference in terms of companies' sustainability. Along with that, the three variables mentioned above have an insignificant impact on the firm value.*

### INTRODUCTION

The tourism sector is hedonic and requires the physical presence of the customers (Donthu & Gustafsson, 2020). The presence of customers enjoying the service given makes this sector

more developed. Since 2011, the development of the tourism sector has begun to advance expeditiously due to the government's policy support in presenting and developing Indonesia's tourism potential. In such a way, the government sets the Wonderful Indonesia slogan and establishes the branding of Indonesian tourism (Mushaf, 2017).

The evolution of the tourism sector is supported by the improvement of tourism facilities and infrastructures that supports potential tourism activities such as lodging (hotels), restaurants, transportation, souvenir shops, and public utilities (communication network, electricity and water). Tourism potential is referring to any sources which can be developed into tourism attractions, in terms of cultural and natural potentials (Nurhadi, 2014).

The increase in these tourist attractions requires a substantial fund known as a High Investment, Not a Quick Yield, which implies that investing in tourism necessitates an appreciable investment with a long-term rate of return (Nirwandari, 2005). In addition, apart from investment funds, sufficient maintenance funds (operational funds) are needed as a means to keep optimizing attractions.

Based on the results of processed data on the industries of tourism, restaurants, hotels, and transportation sectors listed on the Indonesia Stock Exchange (IDX) in 2019 – 2020, the average debt ratio is 52%. This provides the information that 52% of assets possessed by the firm are acquired using debt financing. When compared to the amount of debt to equity, the average is 77,6%. This also shows that the own capital of this business is relatively small and utilizes more debt.

With the COVID-19 pandemic, since the beginning of 2020, the government has published policies to prevent the spread of COVID-19. One of them is implementing Large-Scale Restrictions and campaigning to stay at home (Rosita, 2020). This impacts all levels of

businesses, both large businesses, and Micro, Small, and Medium Enterprises (MSMEs). The impact that hits the firms the most is a decrease in sales or operating revenues. The decrease in activity forces firms to minimize the fixed funds that must be incurred. One of them is to reduce salary funds by laying off some firm employees.

The social restrictions imposed throughout Indonesia have resulted in the paralysis of businesses in various sectors, either economic, social, or political. The sector that is impacted the most is the tourism sector (Arrazy, 2020). According to (Arrazy, 2020), it is estimated that 75 million jobs in this sector lost their turnover of more than US\$ 2.1 trillion. The lack of income in this sector, while operating funds still have to be incurred, has reduced employees in several firms. The decision to reduce employees is not easy. Firms must make a careful examination of employees who deserve to be laid off. Various methods are employed in making this decision. The criteria for employees who deserve to be laid off include discipline, knowledge, attitudes, abilities, and appearance (Narti, 2021).

To maintain their business, firms strive to reduce their high operating funds. Numerous alternatives are taken besides reducing the number of employees. One of which is by strengthening the capital through credit expansion (Yuneline & Anggono, 2012). However, firms must pay close attention because additional credit (debt financing) can expand the interest expense that firms must pay. The expectation is that businesses in the tourism sector can run well, even when there is an additional burden in interest charged to various businesses affected by COVID-19. Corporate financing decisions require in-depth analysis, including firm size variables, to maintain the firm's sustainability (Wiliandri, 2011).

The surviving firms are considered to have the ability to maintain their firms' value. The firm value reflects on the stock price that

occurs on the Indonesian stock exchange, which combines the market value of issued shares and the debt market value of a firm by maximizing the value of the shares (Irayanti & Tumbel, 2014). Optimal leverage will increase the firm value, and otherwise, if the leverage is too high, it will decrease its value.

According to this phenomenon, further discussion will concern with firm's leverage ability in maintaining the firm value before and during the COVID-19 pandemic.

## **LITERATURE REVIEW**

### **Firm Value**

The objective of financial management is to maximize the firm value (Brigham & Houston, 2010). Firm value is the price a prospective buyer (investor) is willing to pay if the firm is sold (Husnan & Pudjiastuti, 2012). To accomplish this value, the firm attempts to enlarge the firm value by fundamentally and technically increasing the share price. Fundamentally, it can operate financial ratios that are based on financial statement data. The "go public" firm (the firm's shares have been traded on the stock market) must provide sufficient information to investors referring to the activities conducted by the firm. This information will be an assessment for investors reflected in the share price.

The firm value reflects the prosperity of the shareholders (Oktaviani, 2019). Shareholder prosperity is shown by the wealth owned by shareholders and firm policies in investment decisions, financing, and asset management. Decisions within the firm are based on maximizing the present value of all returns that shareholders will acquire in the future (long-term oriented) (Rahmantio et al., 2016).

Various studies have thrived concerning factors affecting a firm's value. Several commonly used variables in assessing the firm value are the firm's financial performance

(Dj et al., 2012; Irayanti & Tumbel, 2014), leverage (Butar & Sadalia, 2019; Dewanto et al., 2017; Mery et al., 2017; Sutama & Lisa, 2018), dividend policy (Abidin et al., 2014; Sofia & Farida, 2017), and size (Abidin et al., 2014; Kayobi; & Anggraeni., 2015; Oktaviani, 2019; Rahmantio et al., 2016).

Abidin et al. (2014) stated that the firm value is the capitalization of net income in the form of EBIT (Earnings Before Interest and Tax) with a constant capitalization rate corresponding to the level of the firm risk. The firm value consists of debt value and stock value.

The firm value measurement employs the valuation ratio or market ratio by operating Tobin's Q ratio established by Professor James Tobin in 1967. This ratio is the most generally used concept because it shows a current financial market estimation of each incremental investment dollar (Gwenda, 2013).

### **Leverage**

A leverage ratio is a ratio used to measure the extent to which the firm's assets are financed with debt compared to its capital (Sutama & Lisa, 2018). In a broad sense, it can be said that the solvency ratio is used to measure the firm's capability to recompense all of its obligations, both short and long-term if the firm is disbanded (liquidated). In practice, the use of debt by a firm as a source of financing will extend fixed funds in the form of debt interest funds.

The policy of increasing the amount of debt usually occurs in firms with high business risk (Firnanti, 2011). The business stake is the risk faced by firms when carrying out their operations. The inability of a firm to run its operations shows that it is a high-risk firm (Juliantika & Dewi, 2016). Research shows that business risk is directly significant to firm value (Saraswathi et al., 2016).

A high leverage ratio indicates that a firm is not solvable, in other words, total debt is greater than the total value of its assets. This circumstance increases investment risk if the firm cannot pay off its obligations on time (Brigham & Houston, 2010).

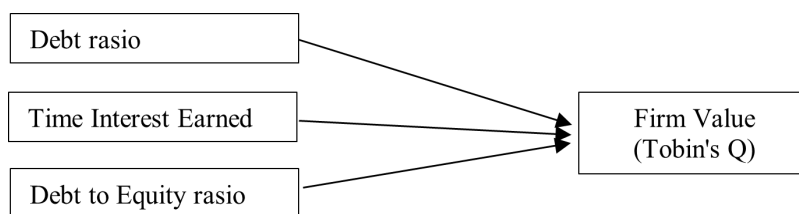
The Debt Ratio can be measured by leverage ratio, Time Interest Earned (TIE), and Debt Equity Ratio (DER). The debt ratio is the composition of the total assets of a firm that is financed by debt. TIE is the ability of business profits owned by the firm to ensure the payment of interest expenses borne by the firm. In contrast, DER is the composition of a firm's total debt by shareholders' equity owned by the firm.

The research (Gwenda, 2013) uses firm-wide objects in the IDX with the period 2007 – 2011, testing the effect of debt ratio on the

firm value. The results of this study resulted that there was a negative and significant connection occurred. While the research (Kayobi & Anggraeni, 2015) generates a positive and significant relationship with the objects in the Consumption Goods sector. TIE testing of a firm value results in an insignificant influence (Dewanto et al., 2017), whereas (Butar & Sadalia, 2019) results in a negative and significant impact on the firm value. Research that examines the effect of DER on a firm value, results in a negative and significant influence (Kayobi & Anggraeni, 2015; Rahmantio et al., 2016).

**Research Framework**

Referring to the existing literature review, this research tested the leverage ratio measured by the Debt Ratio, TIE, and DER toward firm value by employing Tobin's Q (See Figure 1)



Source: Data processed (2021)

**Figure 1** Research framework

Taken the research framework that has been presented in Figure 1, the hypothesis can be stated as follows:

- H1: Debt ratio influences firm value
- H2: Time interest earned (TIE) influences firm value
- H3: Debt to Equity ratio (DER) influences firm value
- H4: Debt ratio, Time interest earned (TIE) and Debt to Equity ratio (DER) has an influence on firm value (Tobin's Q) simultaneously
- H5: There are differences in Debt ratio, Time interest earned (TIE), Debt to Equity ratio (DER), and the firm value before and during the COVID-19 pandemic

**METHODOLOGY**

This research used a quantitative method approach. The data was secondary in the form of the firm's financial data obtained from the annual financial statements of companies in the tourism, hotel and restaurant, and transportation sectors listed on IDX. Data retrieval was collected from the database data stream (Refinitiv Eikon) and the www.idx.co.id website. The period of observation and data collection was the year 2019 – 2020. This period was taken to see the difference in leverage policy and the firm value before and during the COVID-19 pandemic.

The sampling technique was purposive sampling, and the sample taken were those with complete data on observation years and aged a minimum of 5 years in 2019. These criteria are determined to ensure that the company was at a good level in managing its business. The population is the companies which involve in the tourism, restaurant and hotel, and transportation sectors. Referring to the Indonesia Stock Exchange data, this sector amounted to as many as 80 companies in 2019. The sampling criteria can be seen in Table 1. Eventually, there were 39 companies per year obtained that are ready to be processed.

**Table 1** Sampling research criteria

Sampling criteria	Number of companies
Tourism, restaurant and hotel sectors company	38 companies
Transport sector company	42 companies
Listed at least before 2014	(31) companies
Companies' inadequate data to be processed	(10) companies
Sample companies	39 companies

Source: Data processed (2021)

The variables operational definition used was the leverage ratio to measure the extent of a firm financed by debt, and firm value which was measured by Tobin's Q. The model used in testing was the econometric model. The model showed the presence of constants, variables, and coefficients. The hypothesis testing method employed multiple regression analysis to test the effect of variable leverage (Debt ratio, Time interest earned (TIE), and Debt to Equity ratio (DER) toward firm value (Tobin's Q). The econometric model of regression is displayed in the equation below:

$$\text{Tobin's Q} = \alpha + \beta_1 \text{DR} + \beta_2 \text{TIE} + \beta_3 \text{DER} + \epsilon$$

Hypotheses 1 to 3 testing used the multiple regression testing of econometric models that have been formed, based on the value of the regression coefficient and significance level of each variable leverage. Hypothesis 4 testing was carried out

simultaneously (F test) and using a partial test (t-test) by comparing in a 5% probability scale. Hypothesis 5 testing was performed using different test variables debt ratio, time interest earned (TIE), debt to equity ratio (DER), and the firm value before and during the COVID-19 pandemic. This testing used the t-test for two paired samples with the method of paired sample t-test. Decision-making was based on the significance value, where if the value of sig < 0.05, then there was a real difference between the leverage before and during the COVID-19 pandemic.

Before performing the hypothesis test, the researchers conducted the classic assumption test to ensure that the data met the assumptions of the BLUE [Best, Linear, and Unbiased Estimators] (Amin & Herawati, 2012). The classical assumption test was in terms of normality test (to convince the data to be normally distributed), the test of multicollinearity (to avoid the presence of correlation between the independent variables), heteroscedasticity (to avoid the presence of the inequality variance of the residual from one observation to the others), and autocorrelation (to avoid the presence of correlation between the bug mistakes on a period to the previous period) (Ghozali, 2011).

## RESULTS

### The Classic Assumption Test

For the classic assumption test, initially, the normality test is carried out using the one-sample Kolmogorov-Smirnov test method. The purpose is to determine the presence of normal distribution. When the significance value is > 0.05, then the residual values are measured normally distributed. The initial test results indicate the Asymp value. The Sig value generated is 0.000 which means it is not normal. Consequently, a transform is performed on the dependent variables (Tobin's Q), and 2 (two) independent variables, specifically TIE and DER. Afterwards, normality testing is re-conducted obtaining Asymp value. The results

are a Sig value of 0.106, and a significance value of  $0.106 > 0.05$  indicating that the processed data is normally distributed (Ghozali, 2011). Furthermore, to ensure all variables are normally distributed, a normality test is performed. The results demonstrate that all variables have a Sig value above 0.05 means that data is normally distributed.

**Table 3 Normality test results**

One-Sample Kolmogorov-Smirnov Test			
			Unstandardized Residual
N			32
Normal Parameters <sup>a,b</sup>	Mean		0.0000000
	Std. Deviation		0.13532369
Most Extreme Differences	Absolute		0.167
	Positive		0.167
	Negative		-0.122
Test statistic			0.167
Asymp. Sig. (2-tailed)			0.023 <sup>c</sup>
Monte Carlo Sig. (2-tailed)	Sig.		0.303 <sup>d</sup>
	99% Confidence Interval	Lower bound	0.291
		Upper bound	0.315
a. Test distribution is normal			
b. Calculated from data			
c. Lilliefors Significance Correction			
d. Based on 10,000 sampled tables with starting seed of 2,000,000			

Subsequently, the second classic assumption test performed is multicollinearity using Tolerance and VIF values. According to Ghozali (2011), multicollinearity symptoms do not occur if the Tolerance value (TOL) > 0.100 and the VIF value is < 10.00. Based on the data processing result (Table 4), the TOL value of all variables is >0,100, and the VIF value of all variables is <10,00. This indicates that the data processing does not encounter multicollinearity symptoms.

**Table 4 Multicollinearity test results**

Coefficients <sup>a</sup>		Coefficients <sup>a</sup>	
Model		Collinearity Statistics	
Tolerance		VIF	
1	(Constant)		
	debtr	0.407	2.456
	trans_tiel	0.943	1.060
	trans_derl	0.400	2.497
a. Dependent Variable: trans_tobinsql			

The third classic assumption test is heteroscedasticity, with the purpose to examine the inequality of variance in the linear regression model between residuals from one observation to another. A proper regression model has homoscedasticity or where there is no heteroscedasticity. As stated by Ghozali (2011), there is no heteroscedasticity if there is no clear pattern (wavy, widened, narrowed on the scatterplot image and the points spread above and below the number 0 on the Y-axis). It can be seen from the scatterplot data processing result in Figure 2 above that data distribution spread without forming a pattern. It can be concluded that the heteroscedasticity test has been fulfilled.

Source: Processed data (2021)

**Figure 2** Scatterplot of heteroscedasticity testing

Moreover, the fourth classic assumption is to test the autocorrelation test which is performed to determine the presence of correlation variables in the prediction model for a specified period. It is suggested that the regression model should not have autocorrelation. Ghozali (2011) stated that there is no autocorrelation symptom if the Durbin-Watson value lies between  $du$  and  $4-du$ . Following the analysis of SPSS results, the value of  $du$  in the value distribution of Durbin Watson table of  $k$  (3) and  $N$  (31) with a significance of 5%, in consonance with this,  $du$  (1.5701) < Durbin Watson (1.6380) <  $4-du$  (2,4299) are obtained as shown in Table 5. Since the Durbin-Watson value is between  $du$  and  $4-du$ , in consequence, there are no autocorrelation symptoms present in the data.

**Table 5** The autocorrelation test results

Model summary <sup>b</sup>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0,323 <sup>a</sup>	0,104	0,008	0,14239	1,638
a. Predictors: (Constant), trans_derl, trans_tiel, debtr					
b. Dependent Variable: trans_tobinsql					

## Research Results

Hypothesis testing 1 to 3 are conducted using multiple regression testing on the data Coefficients processing result in Table 6. If the processing results indicate a decent value (sig. <0.05), then part of the variable has a significant effect and can be analyzed further.

**Table 6** Regression test results

Coefficients <sup>a</sup>						
Model	B	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		Std. Error	Beta			
1	(Constant)	-0,097	0,142		-0,685	0,499
	debtr	0,213	0,230	0,260	0,927	0,362
	trans_tiel	-0,014	0,032	-0,083	-0,450	0,656
	trans_derl	0,015	0,098	0,044	0,155	0,878
a. Dependent Variable: trans_tobinsql						

The results of Sig. in Table 6 indicate that all variables leverage (ratio, Time Interest Earned (TIE), Debt to Equity Ratio (DER)), present a value >0.05, which means that these variables do not have a significant effect on firm value. So, it can be concluded that hypotheses 1 to 3 are rejected.

Hypothesis testing 4 (four), particularly Debt ratio, Time Interest Earned (TIE), and Debt to Equity Ratio (DER), simultaneously affects firm value (Tobin's Q), tested using the ANOVA method (Table 7). According to this, simultaneous regression model testing shows an F value of 1.087 with a significance level of 0.371 (> 0.05). Hence, it implies that the regression model does not appropriate to predict changes in firm value.

**Table 7 Goodness of fit**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.066	3	0.022	1.087	0.371 <sup>b</sup>
	Residual	0.568	28	0.020		
	Total	0.634	31			
a. Dependent Variable: Trans_tobinsql						
b. Predictors: (Constant), trans_der1, trans_tiel, debtr						

Hypothesis testing 5 (five) determines that there is a difference in the Debt ratio, Time Interest Earned (TIE), Debt to Equity Ratio (DER), and firm value before and during the COVID-19 pandemic. The testing is performed using a different test which is a t-test for two paired samples through paired sample t-test method.

The descriptive statistic appears in Table 8. The debt composition in financing business operational expenses has increased by an average of 2.28% before and during the pandemic. Whereas the TIE value that indicates the amount of profit held for interest expense shows a negative value. There was an extensive decrease in profit during the COVID-19 pandemic in 2020 (an average decrease of 49.5 times). In comparison with equity, ownership in a firm likewise encounter an average increase of 2.54%. As a result, there is a decrease in firm value (Tobin’s Q) by an average of 8.2%.

**Table 8 Descriptive paired samples**

Paired samples statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	debt ratio19	0.545	39	0.265	0.042
	debt ratio 20	0.568	39	0.344	0.055
Pair 2	tie19	11.806	39	33.923	5.432
	tie20	-37.698	39	107.655	17.239
Pair 3	der19	0.767	39	0.784	0.126
	der20	0.792	39	0.882	0.141
Pair 4	tobinsq19	1.230	39	0.729	0.117
	tobins20	1.148	39	0.627	0.100

In line with the data processing results on paired sample correlations (Table 9), the entire variables used in this research indicate a significance value <0.05. Hence, conditions before and during the pandemic determine that firm leverage ratio (Debt ratio), Time Interest Earned (TIE), Debt to Equity Ratio (DER)) Furthermore, firm value has a strong correlation.

**Table 9 Paired samples correlations test**

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	debt ratio19 & debt ratio 20	39	0.875	0.000
Pair 2	tie19 & tie20	39	0.441	0.005
Pair 3	der19 & der20	39	0.913	0.000
Pair 4	tobinsq19 & tobins20	39	0.775	0.000

The processing result determines that there is a difference between before and during the COVID-19 pandemic, as pointed out in Table 10.



**Table 10** Difference test using paired sample test

Paired Samples Test									
Mean		Paired Differences					t	df	Sig. (2-tailed)
		Std. Devia- tion	Std. Error Mean	95% Confidence Inter- val of the Difference					
				Lower	Upper				
Pair 1	debt ratio19 – debt ratio 20	-0.0228	0.1708	0.0273	-0.0782	0.0325	-0.834	38	0.409
Pair 2	tie19 – tie20	49.5038	97.5758	15.6246	17.8739	81,1342	3.168	38	0.003
Pair 3	der19 – der20	-0.0254	0.3599	0.05764	-0.1421	0.0912	-0.442	38	0.661
Pair 4	tobinsq19 – tobins20	0.0820	0.4647	0.0744	-0.0686	0.2326	1.102	38	0.277

Based on the Paired Samples Test processing results, the differences in variables before and during the COVID-19 pandemic can be observed from the Sig value. The debt ratio has a Sig value of 0.409 (Sig. > 0.05). This result entails no significant difference between the composition of debt and the total assets owned by the firm before and during the COVID-19 pandemic. Time Interest Earned (TIE) has a Sig value of 0.003 (Sig. < 0.05), this result denotes that there is a significant difference between the firm ability to pay interest expenses using the firm operational profit before and during the COVID-19 pandemic. Debt to Equity Ratio (DER) has a Sig value of 0.661 (Sig. > 0.05). This result indicates no significant difference between the composition of debt and the amount of equity owned by the firm before and during the COVID-19 pandemic. The value of the firm has a Sig value of 0.277 (Sig. > 0.05). This result means no significant difference between the firm value before and during the COVID-19 pandemic.

This difference test reveals that only Time Interest Earned (TIE) presents a significant difference in conditions before and during the pandemic, specifically in the operational profit's value, which is relatively decreased compared to 2019. Considering other ratios, although there is a change that occurred during the pandemic, this value has not provided a significant difference to the model that has been established in this research.

The pandemic that has hit Indonesia since the beginning of 2020 has had a severe impact on changes in the firm system and the value in the overall financial aspects, particularly in the tourism sector. This research examines firm leverage against firm value, and whether there is a difference between leverage and substantial value before and during the pandemic. Utilizing data for 2019 (before the pandemic) and data for 2020 (during the pandemic), the researcher tested the hypotheses that had been developed at the beginning.

The results of testing hypotheses 1 to 3 reveal that the Debt ratios, Time Interest Earned (TIE), and Debt to Equity Ratio (DER) have no essential effect on firm value. This result is different from that produced by (Wira, 2021) which states the existence of a debt ratio that has a significant effect on firm value. This difference can be seen from the sample time used and the measurement of firm value. Hypothesis 4 testing gives the result that simultaneously the established regression model in this research also does not provide a fit model in explaining changes in firm value. Hypothesis 5 testing, conducting a difference test before and during the pandemic shows that only Time Interest Earned (TIE) has a significant difference before and during the COVID-19 pandemic. At the same time, the other variables, Debt ratio, Debt to Equity Ratio (DER), and firm value, do not give different values in these two conditions.

The occurrence of the COVID-19 outbreak makes the firm operational profit become significant and look diverse. This is due to a policy from the government in controlling the spread of the virus so that Indonesian people must undergo a lockdown and Large-scale Social Restrictions (LSRR) for a specified period. When there is a growth in the spread of the virus, the Large-scale Social Restrictions (LSSR) time is resumed. This prolongs the impact of declining sales or revenue for the firm.

On the other hand, in terms of the firm's additional debt policy, it has not provided a significant difference. This is supported by the sample used, a firm that has been stable in conducting business operations. The pandemic for one year (2020) has not significantly changed the firm's financing decisions, especially in financing with debt.

## CONCLUSION

According to the Indonesian Stock Exchange (IDX), the tourism sector (including the tourism, hotel and restaurant, and transportation sectors) is a sector that requires a physical presence from its customers. The COVID-19 pandemic that hit Indonesia in early 2020 caused the development of this sector to decline drastically. Many firms carry out various policies in maintaining their operations, including adding financing in debt to the firms. It is expected that the firm's operations will survive and carry out various innovations in providing services to customers.

This research aims to examine the effect of firm leverage against the firm value and perform a different test on conditions before and during the COVID-19 pandemic. The sample is chosen using purposive sampling with a data collection period of 2019 – 2020. The criteria for the samples are the firms accompanied by complete data in the year of observation, and at least five years old in 2019. At the last, there are 39 companies used as samples with complete data per year. The data was collected through datastream and [www.idx.co.id](http://www.idx.co.id) website.

The leverage variable is measured by Debt ratio, Time Interest Earned (TIE), and Debt to Equity ratio (DER), whereas the firm value variable was examined by Tobin's Q. Hypothesis testing is conducted using multiple regression and difference tests through paired-sample t-test. The tool used for this analysis is SPSS version 26. The data obtained is tested to meet the classical assumption test to free the data from BLUE. Classical assumption tests used are the normality test, multicollinearity test, heteroscedasticity, and autocorrelation.

The research results explain that the Debt ratio, Time Interest Earned (TIE), and Debt to Equity Ratio (DER) have no crucial effect on firm value. Simultaneously, the model that has been established also does not provide a fit model to explain the firm value in the tourism, hotel and restaurant, and transportation sectors in the research period taken.

The results of the paired samples test explain that only Time Interest Earned (TIE) had a major difference before and during the COVID-19 pandemic. Regardless, the other variables such as Debt ratio, Debt to Equity ratio (DER), and firm value, do not give different values in these two circumstances.

There are still several limitations in this research, including the short period in carrying out the research as the results obtained have not yet been maximum. It is hoped that future research can extend the observation time, before and during the pandemic, at least 2 (two) years each. So that the difference in each condition can be presented more clearly and produce better research. Furthermore, it is necessary to add other variables that affect the value of the firm, including firm size (size), dividend policy, business risk, et cetera. This must be supported by evidence that the research model used has not provided a fit model in viewing firm value in the context of leverage.

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