

The Influence of Financial Leverage and Firm Size on the Company Value

(A Study on Telecommunication Company BEI Listed in 2014-2018)

N V Puspita

Department of Economics
Kadiri University
Kediri, Indonesia

nindi.vaulia@unik-kediri.ac.id¹

K Yuliari

Department of Economics
Kadiri University
Kediri, Indonesia

Abstract— Financial leverage, firm size, and profitability are some of the components that affect the company's value. The objectives of this research is to know the influence of financial leverage, firm size, and profitability of the company's value; to know the influence of financial leverage and firm size toward profitability. The research sample is a telecommunications company that lists in IDX of 2013-2018, the analytical techniques used are path analysis. Based on the results of the analysis, it shows that the components of the financial leverages consisting of DER (debt Equity ratio) affect the company's value, while the TIE (Time interest Ratio) does not affect the value of the company. Variable size companies demonstrate an influence on the company's value, as well as the whole component of the financial leverage affects profitability. Meanwhile, variable of firm size also affect profitability. The profitability variable affects the value of the company directly as well.

Keywords— *Financial leverage, firm size, profitability, corporate value*

I. INTRODUCTION

The value of the company is a picture of the performance of a company, whereas the company has a high value, it will raise the credibility of the company in the perceptive of investors [1] The value of the company provides an understanding to investors Company's success in managing resources within the company. The higher the profit the company generates, the more profit investors expect, so that the company's value becomes higher [2] [3]

The company's value can be measured through market ratio i.e. the ratio to measure market recognition towards the financial condition achieved by the company [4]. The value of the destruction is measured by price book to value (PBV) i.e. the comparison of stock-share prices with the value of book value per share, where the value of the price book to value reflects the level of investor prosperity [5].

[6] It states that the company's capital is consisted of equities and debts. The debt will appear when the company uses the investor's loan funds, and this condition is referred to the financial leverage. In general, when financial leverage increases then the profit and risk of the company also increases. In some studies, financial leverage has an effect on

the company's value as well as profitability [5]. The company's main objective is to use financial leverage so that investor's return is also increased, because the financial leverage acts as a deduction from return on net asset, this condition occurs because when the cost of interest increases then the financial Leverage also increases, so the interest will change to a fee so that it will increase the company's profit before tax which will later be proportional to the net profit after tax [7].

Financial leverage shows the amount of investor's funds used by the company, where the financial analysis used is debt equity ratio, it is the ratio of the financial used to gauge how much the company is financed by the debt obtained from investors [8]. The Debt equity ratio demonstrates the company's ability to fulfill its long-term obligations based on the proportion of equity owned by the company[5].

Another component in the financial leverage used as the company's condition gauge is the interest coverage ratio/time interest earned ratio (TIE) [1]. The Time Interest earned ratio is a measure of the company's ability to pay the debt, this ratio is used by investors to measure the possibility of a company's failure. Calculation of time interest earned (TIE) based on the profit margin owned by the company, the figure on the interest ratio shows how big the company uses investor loan funds, where the lower the value of TIE then many companies use loans from the investors [9].

Research [10] indicates that the firm even though it does not significantly affect the value of the company. Yet, the profitability is directly inline with the value of the company, when the profitability increases, it automatically values companies are also increasing. The size factor of the company affects the value of the company because of the stigma that the larger the firm size, the easier the company's obtains funds to achieve the company's objectives.

Profitability is closely related to the value of the company, where profitability measures the company's ability to get a profit on the company's operational activities, the higher the number of the profitability ratio, it indicates that the company manages the management effectively and efficiently [11]

The subject in this research is telecommunications company because of the dynamic movement of the company, in Indonesia the telecommunications company is an important sector that is recognized by state-owned enterprises, with the condition of this dynamic company telecommunications companies make companies remain competitive and have a good value, because it is required to maintain the value of the company so that it will remain good in the eyes of investors. It is necessary to examine the condition of financial leverage, size as well as profitability owned by telecommunications companies.

II. LITERATURE REVIEW

Kodongo et al [12] explained that the financial leverage has no influence on the value of the company in line with the research [13] that financial leverage does not influence the profitability or value of the company, but research [7] indicates that the influence of financial leverage on the company's value as well as profitability. While research conducted [5] suggests that for DER components or debt equity ratios do not affect the profitability or value of the company while TIE or Time interest earning components have an influence on Profitability as well as corporate values.

The firm size is the form of total overall asset owned by the company. Where the larger firm size, the larger the asset owned by the company. it will be formed stigma that the easier the company in obtaining profit, according to the research [3] firm size affects the value of The company, this research is according to what is done by [14] stating that the firm size significantly affects the value of the company as well as profitability, but the research conducted by Indrayani [10] indicates that there is no influence between firm size with the value of the company, this condition against the theory or stigma that when firm size increasingly, easier the company get funding in running the operational activities of the company, then later increase the value of the company, this is because the company tends to choose an internal funding compared to debt, the research supports the opinion of Niresh [15] indicating that there is no influence of the firm size to value of the company.

Indrayani [10] shows that profitability is directly proportional to the value of the company, where the profitability of the profit increases then the value of the company will also increase. High profitability indicates that the company's ability to produce return for investors is also getting higher, when the return received by investors is higher, then more and more investors are interested to invest, which will eventually increase the value of the company through the higher share price. This research is in accordance with pecking order theory that when the return is big, then the company will reduce the funding from the debt [8].

Firm size sets a large small company based on the total assets of the company owned. Companies that have large assets will mobilize resources as maximum as possible with management as effectively and efficiently as possible to generate maximum return so it can increase the prosperity of shareholders [10].

Enekwe et al. [6] using Return on assets (ROA) to demonstrate the company's ability to produce returns, since Return on Assets shows that the company's return after net profit is divided by the total assets. The company's goal is to maximize the value of the company which means maximizing return gained by the investor/shareholder. Maximizing shareholder return also means increasing the price of shares owned by the investor. The measuring instrument used in the company's value is price to book value (PBV). Price to book value measures the comparison of the stock price with the book value per share. The higher the PBV value will be the higher the return earned by the investor/shareholder [15]

III. METHOD

This research examines the causal relationship, which explains the influence of independent variables on dependent variables by strengthened or weakened by intervention variables. The selection of samples in this study uses census methods which took all population members to be sampled. The samples used consist of 6 telecommunications companies that list in IDX in the period 2014-2018 consisting of Bakrie Telkom TBK (BTEL), XL Axiata (EXCL), Smartfren Tbk (FREN), Inovisi Infracom Tbk (INVS), Indosat Tbk (ISAT), and telecommunication Indonesia TBK (TLKM).

The variables in this study consist of independent variables (X) consisting of financial leverages and firm sizes. According to Avitasari et al [5] The financial leverages are the ratio of debt that can be measured through Debt Equity Ratio (DER) and Time interest earning (TIE). For a firm size variable is firm size that is seen from the total value of the asset, equity and also the sales of a company, the size used is the natural total logarithmic (LnS) proxy [16]. The dependent variable (Z) in this study is the value of the company, where this variable shows the selling price of the company in the eyes of investors calculated with PBV (price to book value) [4]. While profitability is used as an intervening variable (Y) which is calculated using Return on Assets (ROA).

Data Analysis uses path analysis or path analysis, which is an extension of multiple regression analyses that are capable of seeking large exogenous variable influences on endogenous variables both partially and in simultaneous events. By using path analysis, it will be able to test the influence of financial leverage consisting of Debt Equity Ratio (DER) and Time interest earning (TIE) and firm size to profitability (Y). It will impact the value of the company (Z) both simultaneously or partial. Data sources used in this research is secondary data, which is obtained from the official publication of the Indonesia Stock Exchange website (IDX)

IV. DISCUSSION

A. Descriptive Analysis

A descriptive analysis shows how large the maximum, minimum and average values of a variable are researched consisting of the financial leverage, firm size, company value and company profitability. Based on the calculated table of the number of samples consisting of 6 companies, multiplied by the number of research periods (5 years), it can be seen that:

Data from the financial leverage represented by the debt equity ratio (DER) and the smallest time interest earning (TIE) occurred in the year 2016 are 0.20 percent of the company PT Indosat TBK (ISAT), while the highest are 7.67 percent of the company XL Axiata (EXCL), while the financial leverage is in average value, it shows that every year during the average financial leverage period of research has increased firm size measured using NATURAL LOGARITHM TOTAL (LNS) smallest of 4.26 percent namely Bakrie Telecom TBK (BTEL), in 2016, 2017, 2018 the company Invisi Infracom TBK (INVS) hold the lowest number, while in 2015 and 2016 Smartfren Telecom (FREN), from the table can also be known that during the study period of firm size on LOGARITHM NATURAL TOTAL (LNS) was increasing.

The smallest profitability achieved by Bakrie Telecom TBK (BTEL) was -26.48 in 2015 and the highest achieved by Telekomunikasi Indonesia Tbk (TLKM) in 2017 by 18.97 percent. From the counting table, it can also be noted that the profitability has a positive change of 5.67 percent with a standard deviation higher than the average profitability of 11.28.

The smallest value of the company (PBV) is 0.24 percent in PT. Smartfren Telecom Tbk. (FREN) in 2015 and the highest was 19.98 percent in telecommunication company Indonesia (Persero) Tbk. (TLKM) in 2018. From The Count table it can also be known that the average value of the company during the observation period was 4.84 percent and the standard deviation of 4.485 percent.

The normality test serves to test the variable regression model as a normal distribution. The test results of normality of sub-structure 1 consisting of the influence of financial leverages and the company's size to profitability state that the Asymp coefficient. Sig. (2-tailed) is 0.231 whereas the significance level used is 0.05. These results indicate that the data used is a normal distribution due to the ASYMP value. Sig. (2-tailed) is higher than 0.05 ($0.231 > 0.05$). While the sub structure 2 consisting of financial leverage, firm size and profitability to the company's value shows the coefficient of Asymp. Sig. (2-tailed) is 0.270 whereas the significance level used is 0.05. These results indicate that the data used is a normal distribution due to the ASYMP value. Sig. (2-tailed) is higher than 0.05 ($0.270 > 0.05$).

The multicollinearity test aims to test whether or not regression models find the presence of a variable between the free (independent) variables. The multicollinearity is in the search for the magnitude of Variance Inflation Factor (VIF) and the value of Tolerance. If the value of the VIF is less than

10 and the Tolerance value is more than 0.10 then the free regression of the multicollinearity, from the results in the Tolerance VIF for the leverage financial variable represented DER and TIE, while the firm size using The TOTAL NATURAL LOGARITHM (LNS) towards profitability is free of the symptoms of multicollinearity. This occurs because the tolerance value obtained of each is more than 0.1 and the VIF value is less than 10, namely DER, TIE and LOGARITMA NATURAL TOTAL (LNS) of 0.973 and VIF of 1.24. Substructure 2 which demonstrates the financial leverages, firm size and profitability indicates that the value of tolerance DER 0.87 with VIF 1.43; TIE 0.97 VIF 2.08; TOTAL NATURAL LOGARITHM (LNS) 0.64 VIF 1.94; ROA 0.56 with VIF 2.35.

Heteroskedasticity test is used to test whether in the form of regression occurs inequality variance of the residual one observation with to other observations. The result of a heteroskedasticity output test SPSS shows a decent regression used in this study, since for sub sectors 1 shows the significance values of each variable 0.370 and 0.898. The significance value of each of those variables is higher than 0.05 then it can be concluded that the regression model on the model I did not occur heteroskedasticity. Subsectors 2 indicates that the significance values of each variable are 0.974, 0.086 and 0.095. The significance value of each of these variables is higher than 0.05 then it can be concluded that the regression model does not occur heteroskedasticity.

The autocorrelation test sub sector 1 shows the DW value of 1.848 compared to the table value significance of 5%, the number of samples 30 (n) and the number of independent variables 3 (K = 3) then the value of Du 1.739 is obtained. The value of DW 1.948 is higher than the upper limit (du) which is 1.739 and less than $(4-du) 4-1,739 = 2.261$. It can be concluded that there is no autocorrelation.

The F test (simultaneous test) is performed to test whether or not the effect of the simultaneous independent variables on the dependent variables. F test results is obtained by F count of 17.76 with a significant value of $0.000 < 0.05$, it is demonstrated that DER, TIE and Logarithma Natural Total (LNS) provide a silvery influence on ROA.

DER's influence is indicated by a significance value of $0.034 < 0.05$ and a TIE $0.059 < 0.05$ indicating a significant influence between the DER against ROA, but the TIE had no significant effect on the IDX registered in Telecommunications Company. The research is contrary to previous research by Enekwe et al. (2014), which states that the interest coverage ratio has a positive relationship and affects financial performance in the size of return on assets. Thus the interest coverage ratio.

The Natural Total logarithm (LNS) has a significance value of 0.022 indicating the significance of ROA on the IDX-registered telecommunication company, while the beta value generated by 3.02 indicates a positive direction towards ROA, when TOTAL NATURAL LOGARITHM (LNS) increases then the company ROA also increases. For test results F Sub Sector 2, showed a value of F of 19, 876 with a significance of $0.000 < 0.05$ (Significance level used). This indicates that

DER, TIE, Natural Total logarithm (LNS), and ROA are influential simultaneously and significantly against PBV.

The influence of the financial leverage is DER on ROA at the IDX-listed telecommunications company in 2014-2018 period. According to the calculated table known that the significance value of DER is $0.013 < 0.05$, then the null hypothesis is rejected, this result indicates a significant influence between DER and ROA on the IDX-listed telecommunications company. The beta 3.765 points to a positive direction, this figure means that DER has a positive effect on ROA. If DER increases, the ROA value. Based on the calculated table, it known that the TIE has a significance value of $0.025 < 0.05$ then the Null hypothesis test is rejected, which means that there is a significant influence between TIE on ROA, while the Beta value positively affects 2.57 and positive direction, this indicates when TIE increases, the ROA value will increase.

The influence of firm size calculated using Natural Total logarithm (LNS) proxies on ROA based on the calculated table is known that the significance value is $0.02 < 0.05$ then H_0 is rejected, it indicates that the Total Natural logarithm (LNS) Significantly affect ROA, while the beta value of 69.87 indicates a positive influence which means when there is a straight comparison between profitability and firm size.

The influence of the financial leverage consisting of DER of the company's value (PBV) in registered telecommunications company in IDX period 2014-2018 shows the calculated number of $0.009 < 0.05$ then H_0 is rejected, this indicates that there is an influence between The DER and PBV are significant. The beta value of 0.894 indicates a positive direction, which means that when the DER at the telecommunications company increases, PBV also increases. From the calculation of the F test result of 19.456 where the significance rate of $0.000 < 0.05$ says that DER, TIE, logarithm Natural Total (LNS), and ROA have a simultaneous and significant influence on PBV.

Effect of the financial leverage DER components on the company's calculated value with PBV. Based on the calculated table, it is known that null hypotheses is rejected because of the significance value of $0.007 < 0.05$ This statement indicates that DER affects the PBV positively as a result of the resulting beta value of 0.88. While the influence of TIE components based on the calculated table indicates that the significance value is $0.008 < 0.05$, then the null hypothesis is rejected, this result indicates that there is a significant influence on the financial leverage with the value of the company, Whereas positive beta values mean that the financial leverage is directly proportional to the value of the company.

The effect of firm size logarithm Natural Total (LNS) on the company value (PBV) indicates a value of $0.067 > 0.05$ indicating the null hypothesis is accepted, it indicates that the firm size does not affect the value of the company. The effect of profitability (ROA) on corporate values (PBV), where the count table shows a significance value of $0.036 < 0.05$ stating that the null hypothesis is rejected, it indicates that there is a significant influence between Profitability to the company's

value during the research period, from the calculated table is also known that the beta value is positive for the value of the company (PBV), it reflects the condition that when profitability increases then the value of the company will also increase.

The Financial leverage that uses the debt equity ratio and time interest earning components shows that there is an influence on profitability, it supports the opinions of Kodongo et al [12], Sterk et al [17] and also Raza et al [13]. This is supported by the higher the financial leverage policy, the higher the profitability gained. This condition occurs because the higher the use of funds from the third Pihan in the form of debt than the use of equity, it can increase the company's return earned even though the risk incurred also increased.

Based on the results of the study, it can be concluded that firm size is directly inline with the profitability that the company will get, this research is in line with the results of research conducted by Novari et al [14] but for Influence of firm size with the value of the company in accordance with the opinion of Velnampy et al [15] which indicates that firm size does not significantly affect the profitability or value of the company, this condition occurs due to Generating a large return company should not have a size that is also large.

Profitability is the ability of the company to generate profits, thereby improving the welfare of the shareholders, in the research shows that the higher the value of profitability, the higher the value of the company. High profitability value is a form of the success of the company's management in generating targeted returns using both its assets and equity, when the expected return is achieved, investors will be much invest in the form of shares, so it will raise the price of the company's stock, when the stock price increases then the value of the company also increases [1]

This research shows that profitability is not able to be a variable intervention between the financial leverage on the value of the company, it is indicated by the result of the calculated table where the significance value > 0.05 is 0.45. This condition occurs because the policy of higher financial leverage gives direct influence on the value of the company. The test result for the firm size indicates that the profitability variable is not capable to be an intervention variable with the company value, it is indicated with a significance value of 0.36, this condition occurs because firm size directly does not affect the value of the company.

V. CONCLUSION

Based on the results of the research and the discussion of the financial leverages and firm size on the value of companies that use the variable profitability as intervening variables conducted in telecommunication companies that are listed on the Indonesian Stock Exchange (IDX) in the period 2014-2018, using six (6) research samples, the financial leverages represented by DER and TIE have a positive and significant influence on the company's value as well as profitability company. Meanwhile, the size variable of the company represented by LnS indicates that firm size does not directly affect the profitability or value of the company, while the financial leverage, and firm size affect the telecommunications

company in the period 2014-2018. For the leverage of financial variable, firm size and also the profitability affect the value of the company directly. In addition, it is found that the results of research of profitability is not able to intervene the financial influence leverage and firm size on corporate values [18]

ACKNOWLEDGMENT

Researchers thank all parties from the Faculty of Economics and the University of Kadiri who fully support the realization of this research. This research may be supported by the research publication ranking program of Kadiri University

REFERENCES

- [1] L. Warrad, R. Al Omari, and M. Al Nimer, "The Impact of Profitability on Obtaining Debt through the Financial Leverage: Comparative Study among Industrial Sectors in Jordan Nimer Sleihat Munther Al Nimer," *Interdiscip. J. Contemp. Res. Bus.*, vol. 5, no. 3, pp. 25–35, 2013.
- [2] A. Obradovich, John and Gill, "The Impact of Corporate Governance and Financial Leverage on the Value of American Firms," *Jordan J. Bus. Adm.*, vol. 12, no. 4, pp. 899–917, 2017.
- [3] Z. Bei and W. P. Wijewardana, "Financial leverage, firm growth and financial strength in the listed companies in Sri Lanka," *Procedia - Soc. Behav. Sci.*, vol. 40, pp. 709–715, 2012.
- [4] L. Ekadjaja, "Linawaty dan Ekadjaja: Analisis Pengaruh Leverage Terhadap Nilai Perusahaan...", vol. XXII, no. 01, pp. 164–176, 2017.
- [5] F. K. Avistasari, Topowijono, and Z. ZA, "Pengaruh Financial Leverage Terhadap Profitabilitas Perusahaan," *J. Adm. Bisnis*, vol. 32, no. 1, pp. 98–105, 2016.
- [6] E. C. Innocent, A. C. Ikechukwu, and E. K. Nnagbogu, "The Effect of Financial Leverage on Financial Performance: Evidence of Quoted Pharmaceutical Companies in Nigeria," *IOSR J. Econ. Financ.*, vol. 5, no. 3, pp. 17–25, 2014.
- [7] M. O. Shamaileh and S. M. Khanfar, "The Effect of the Financial Leverage on the Profitability in the Tourism Companies (Analytical Study- Tourism Sector- Jordan)," *Bus. Econ. Res.*, vol. 4, no. 2, p. 251, 2014.
- [8] H. Kang and S. J. Gray, "Emerging Market Firms in the Global Economy," *Int. Financ. Rev.*, vol. 15, pp. 233–254, 2014.
- [9] G. Bonazzi and M. Iotti, "Interest coverage ratios (ICRs) and financial sustainability: Application to firms with bovine dairy livestock," *Am. J. Agric. Biol. Sci.*, vol. 9, no. 4, pp. 482–489, 2014.
- [10] E. Indriyani, "Pengaruh Ukuran Perusahaan dan Profitabilitas Terhadap Nilai Perusahaan," *Akuntabilitas*, vol. 10, no. 2, pp. 333–348, 2017.
- [11] A. S. M. Dewi and A. Wirajaya, "Pengaruh Struktur Modal , Profitabilitas Dan," *E-Jurnal Akunt. Univ. Udayana*, vol. 2, no. 4, pp. 358–372, 2013.
- [12] O. Kodongo, T. Mokoteli, and L. Maina, "Capital structure, profitability and firm value: panel evidence of listed firms in Kenya Odongo," *Munich Pers. RePec Arch.*, vol. 6, no. 57116, 2014.
- [13] A. Iqbal, H. Raza, M. F. Aslam, and M. Mubin, "Impact of Leverages on Share Price: Evidence from Cement Sector of Pakistan," *Ind. Eng. Lett.*, vol. 6, no. 6, pp. 44–48–48, 2016.
- [14] P. U. Perusahaan and P. M. Novari, "252428-Pengaruh-Ukuran-Perusahaan-Leverage-Dan-Ef0F53a8," vol. 5, no. 9, pp. 5671–5694, 2016.
- [15] J. A. Niresh and T. Velnampy, "Firm Size and Profitability: A Study of Listed Manufacturing Firms ed Manufacturing Firms in Sri Lanka," *Int. J. Bus. Manag.*, vol. 9, no. 4, pp. 57–64, 2014.
- [16] I. W. J. Putra, "PENGARUH LEVERAGE DAN PROFITABILITAS PERUSAHAAN Fakultas Ekonomi dan Bisnis Universitas Udayana (Unud), Bali , Indonesia," pp. 2668–2684.
- [17] S. Stelk, S.-H. Park, S. Medcalfe, and M. T. Dugan, "An additional analysis of estimation techniques for the degree of financial leverage," *Rev. Financ. Econ.*, vol. 36, no. 3, pp. 220–231, 2018.
- [18] M. Alipour, M. F. S. Mohammadi, and H. Derakhshan, "Determinants of capital structure: An empirical study of firms in Iran," *Int. J. Law Manag.*, vol. 57, no. 1, pp. 53–83, 2015.