

The Effect of Capital Structure, Investment Decision, Liquidity and Firm's Value: Panel Data Analysis on Telecommunication Sectors in Indonesia

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ABSTRACT

Companies set aim in rising their firm's value; as the higher firm's value, the greater wealth for the shareholders who invest their capital onto the aforesaid company. Firm's value is investors' perception regarding company's success rate related to the stock price, since a company's stock market price portrays investors' valuation on the entire owned equity. The higher stock price means the better firm's value and shareholders' wealth.

In this paper, the effect of company's capital structure, investment decision, profitability and growth on its business was studied. This research population was comprised of telecommunication companies registered in Indonesia Stock Exchange during period ranging from 2009 to 2018. The used samples were five (5) companies. Research data were secondary data collected from idx.co.id and ticmi.co.id by using data analysis technique of panel data regression analysis. Study outcome demonstrated that capital structure affected the firm's value, meanwhile the company's investment decision, liquidity, profitability and growth did not influence the firm's value.

Keywords: capital structure, investment decision, liquidity, firm's value, panel data

INTRODUCTION

Telecommunication sector plays significant role in connecting vast areas of Indonesia. The huge population that has not yet been reached-out by networks became an intriguing business opportunity for investors in telecommunication sector.

Besides, telecommunication as well partakes in equal development in Indonesia. The spread of even development projects that require infrastructures in both urban and rural regions also targeted telecommunication sector in building those infrastructures, in order to establish communication to all corners of Indonesia.

Telecommunication sector growth booster is economic growth (Universal Broker Indonesia, 2016). Data by Central Bureau of Statistics (BPS) stated that Indonesian economics growth reached 5.17% throughout 2018, which marked the highest achievement since 2014 at 5.01%. Telecommunication sector itself was placed with the biggest growth with contribution at 7.17% to Gross Domestic Product (PDB) in 2018. The highest PDB contributor data in several sectors could be seen in Figure 1.

Figure 1 demonstrated telecommunication sector contributions to PDB during period ranging from 2013 to 2018. In 2013, telecommunication sector contributed at 9.49% to PDB, then increase even more in 2014 to be 10.12%. Despite fluctuation from 2015 to 2018, telecommunication sector remained with growth rate higher than other sectors and always higher than PDB growth rate at 7.17% in 2018. PDB was utilized to figure income total resulted by a country to measure its economic growth. A high PDB value triggers investment increase. Nanga (2005) pointed that PDB increase causing

investment rise due to the aforementioned economics that escalates investment. PDB increase showcased spark in

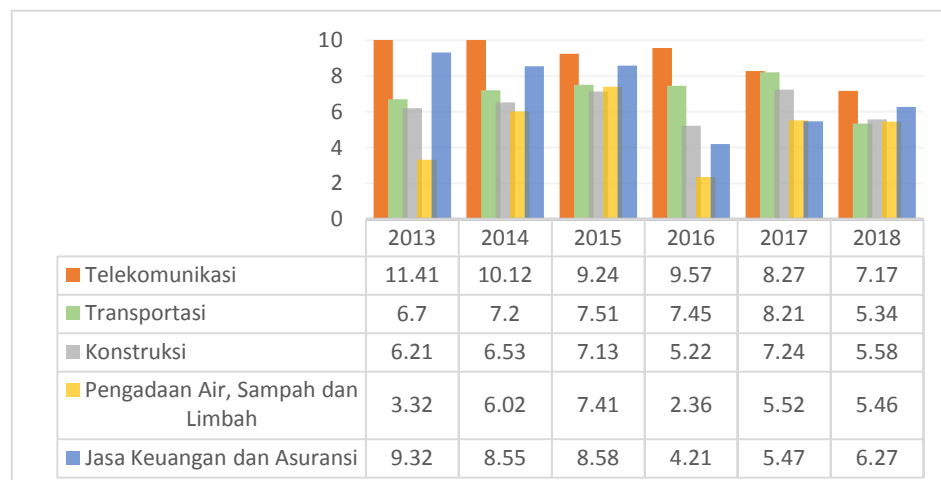


Figure 1 Gross domestic product growth in several sectors listed on the Indonesian stock exchange during 2013-2018

Besides being the most contributor to Indonesian PDB, telecommunication sector as well possessed stock price that kept rising year by year. Through Table 1, it can be investigated that stock price in 2013 at IDR 11,604/sheet escalated to IDR 13,973/sheet in 2018. This portrayed the more investors purchasing company shares, the higher stock price. The rising stock price led to bigger firm's value (DP and Monika, 2014). This great ratio denoted the better wealth to be acquired by a company, because high firm's values makes the market trusting company's performance at the current time or even in forthcoming future (Wijaya and Sedana, 2015). Research on influencing factors on firm's value in telecommunication sector have been studied by some researchers, namely Ansori et al. (2010), Prisilia (2013) and Anton (2016) who pointed that capital structure, investment decision and liquidity affected the firm's value. However, Adiputra (2014) and Suwarno (2016) declared that there are other governing variables to firm's value in telecommunication sector, ones of which are profitability and company growth.

Table 1 Increases of stock price, total asset and total loan of telecommunication sector's during 2013-2018 (IDR)

Year	Stock price/sheet	Total asset	Long-term loan
2013	11.604	247.744.145.483.457	136.459.926.107.463
2014	11.921	284.115.496.924.449	168.527.829.599.640
2015	12.356	303.523.346.320.829	188.404.487.727.684
2016	12.843	309.722.886.288.268	176.820.906.089.434
2017	13.300	330.299.002.676.408	186.633.173.119.030
2018	13.973	342.876.641.077.036	198.065.533.253.394

Based on telecommunication sector annual financial report in Table 1, it was prescribed that company total asset from 2013 to 2018 kept escalating at IDR 247 trillion in 2013 to be IDR 342 trillion in 2018. Yet, in the same year the company also tended to showcase long-term loan increase from IDR 136 trillion in 2013 to IDR 198 trillion to 2018 therefore the company capital structure obtained from calculating long-term loan per total asset demonstrated an increase each year. If a

company possesses bad capital structure, that may give direct effect on business financial position because company who uses loads of loans may cause a heavy obligatory when the company ought to pay back all the loans, where brings risk towards the business in form of bankruptcy (Margareth and Khaerunisa, 2016). Therefore, company shall determine the optimal capital structure according to the business necessities.

An optimal capital structure is defined by numerous indicators, including capital cost. If capital cost spent by a company is high indicating an improper capital structure. An optimal capital structure is interpreted as capital structure that is able to minimize the overall or average capital cost, so that can maximize the firm's value (Harjito and Martono, 2003).

Telecommunication sector is considered as a strategic industry as telecommunication sector growth in Indonesia grows rapidly year by year, which is reflected from the high PDB growth rate and firm's value ratio in telecommunication sector as shown in Figure 2. In 2013, firm's value ratio was merely 1.21% which then remained escalating to be 6.15% in 2018. But behind that, telecommunication sector possessed a high capital structure value. Figure 2 pointed that capital structure value rising for 0.72% in 2013 to be 5.00% in 2018. This aforementioned high capital structure influenced the firm's value, since a big capital structure defines a company who spent more loans in funding its investment, therefore relatively bigger risk for bankruptcy due to interest burden that must

be covered by the company (Harmono, 2009). This may yield to negative impacts toward investors in assessing a company's performance meaning lowers the firm's value.

Through Figure 2, it can be investigated that if telecommunication sector encountered kept-decreasing investment ratio value. In 2013, telecommunication sector investment value was 0.73% that remained going downhill to 0.52%. This low investment value of telecommunication sector was inversely proportional to the firm's value. Telecommunication sector companies on the other hand owned firm's value that kept rising as the investment value went down. This phenomenon differed from concept that declared a rising investment led to a rising firm's value. Based on Husnan and Pudjiastuty (2002), a higher investment value portrayed that company sending positive signs towards investors by investing their capitals to the company, where investors believe by a large investment value meaning company supposed to a great wealth, due to the escalating stock price meaning rising firm's value.

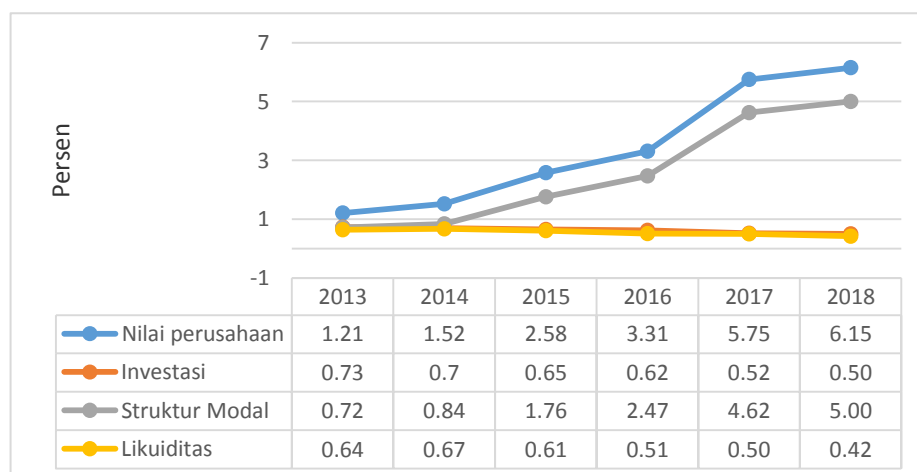


Figure 2 Increase of capital structure, firm's value and decrease of investment, liquidity in the telecommunications sector during 2013-2018

According to Figure 2, telecommunication sector displaying a low liquidity value. In 2013, telecommunication sector liquidity value reached 0.64% that decreased to 0.42% in 2018. Low liquidity

ratio indicated that the company possessed risk in failure to pay back its loans at the assigned time. In fact, companies with higher liquidity value became a brilliant prospect for investors since portrayed as one

with excellent performance, hence investors would invest their funds to companies that eventually escalates the firm's value.

MATERIALS & METHODS

The research was undertaken towards telecommunication sector companies registered in Indonesia Stock Exchange (BEI) during 2009-2018. By utilizing five (5) samples, sampling was conducted with purposive sampling, with criteria of BEI-registered and telecommunication sector companies. The used data in this study were quantitative data. Data were collected from journals, books, internet and literatures related to the research, and by using secondary data, namely telecommunication sector annual financial reports in period ranging from 2009 to 2018 that can be accessed at www.idx.co.id and ticmi.co.id. This study aimed to determine variables affecting firm's value by using panel data regression with the help of processing data software of Eviews 9.

The research applied panel data regression. Panel data is combination of time series and cross sections data. Concerning time series data, observation is that there is one or more variables from series of chronological time. Whilst in cross sections data, there are one or more variables from individuals at same timely point. Based on Gujarati (2006), one of advantages using the panel data is: because panel data relates to individuals, company, etc. from time to time, thus the existing of heterogeneity within unit or individuals. Panel data estimation technique is able to pick this heterogeneity explicitly into a model or formula. In initial approach stage, approaches were comprised of common effect (CE), fixed effect (FE) and random effect (RE). Next is classic assumption test. The tested classic assumptions include normality, multicollinearity, heteroscedasticity, and autocorrelation test. The pane data regression model is as follows:

$$Y_{it} = \alpha + \alpha X1_{it} + \alpha X2_{it} + \alpha X3_{it} + \alpha X4_{it} + \alpha X5_{it} + \epsilon_{it}$$

Where :

Y = Firm's value

i = 1, 2, ..., N (symbols for individuals, companies)

t = 1, 2, ..., T (symbol for time series)

α = Coefficient

X1 = Capital Structure

X2 = Investment Decision

X3 = Liquidity

X4 = Profitability

X5 = Company growth

RESULT

Testing on factors influencing the firm's value in this research applied panel data regression with estimations of common effect, fixed effect and random effect, which the continued by the best model testing. After carrying out Chou and Hausman test, it was obtained that the most fitting approach model for this study was Fixed Effect Model (FEM). Through FEM test table results, coefficient number of each variables were calculated. Table 2 displayed that regression measurement result stated solely variable X1 or capital structure variable that affected firm's value in telecommunication sector with coefficient value of 1.102 or probability of <0.05.

Table 2 Analysis result of Fixed Effect Model

Dependent Variable: Y		
Method: panel Least Squares		
Date: 02/24/20 Time: 11:32		
Sample: 2009 2018		
Periods included: 10		
Cross-section included: 5		
Total Panel (Balanced) observations: 50		
Variable	Coefficient	Prob.
C	0.233701	0.6715
X1	1.102568	0.0000
X2	1.098690	0.0746
X3	-0.132617	0.7148
X4	0.030154	0.8385
X5	-0.163066	0.2936
X6	0.016683	0.9589

Based on Table 2, it could be investigated that capital structure (X1) influenced significantly the firm's value. The significant impact was figured from p

value that was, lower than 0.05, at 0.000. On the other hands, variable of investment decision (X2), liquidity (X3), roa profitability (X4), roe profitability (X5), company growth (X6) were discovered not affecting the firm's value. High capital structure increased firm's value. The higher firm's value, the greater company's stock price. This output supported former studies by Hashemi and Akhlaghi (2011), Cheng and Tzeng (2011), Sulong et al. (2013) and Anton (2016) whose results denoted that capital structure influenced firm's value. Loans addition became positive signal towards investors to affect the firm's value. Through loans existence, management division could control the cash fund flow freely and exaggeratedly. Hence, increasing loans meaning increasing firm's value. This finding as well supported trade off capital structure theory that states as long as a company is capable in balancing between benefits and costs resulted after loans use, then the loans rise shall not turn to be an obstacle. Because optimal capital structure is able to balance between the leverage profit with bankruptcy cost, thus maximizing the firm's value. This is demonstrated in Table 1, where loans use escalated, however stock price rose.

DISCUSSION

Telecommunication sector plays significant role in connecting vast areas of Indonesia. The huge population that has not yet been reached-out by networks became an intriguing business opportunity for investors in telecommunication sector. Technology change and over-the-top applications development encouraged mobile phone users to engage in internet as well causing mobile phone users' trend switch from SMS to be data service. In Indonesia, telecommunication sector faced data service users total growth around 14%-15% (Kominfo, 2017). Besides, Central Bureau of Statistics (BPS) pointed that telecommunication sector was capable to offer highest contribution to PDB Indonesia if compared to other sectors. BPS data could

be seen in Table 1. In Indonesia, there are five (5) telecommunication enterprises, namely TLKM, EXCEL, ISAT, FREN and BTEL. Meanwhile, telecommunication sectors possessed a high capital structure at 0.72% in 2013 that jumped to 5.00% in 2018, also liquidity value decrease from 0.64% in 2013 to 0.42% in 2018. Situation with high capital structure and low liquidity would leave company in bankruptcy risk due to payment failure risk post-deadline. In addition, investment decision in telecommunication sector as well encountered a decrease from 0.73% in 2013 to 0.50% in 2018, where high investment value would give a desired signal and perspective in regards to assessment of investors toward the company. Investors trusted that high investment would result in great wealth due to the rising stock price accordingly.

In context of financial management, funds resource that is covered by loans is called capital structure. Capital structure is loans ratio that demonstrates level of financial risk experienced by a company. Payment using loans would be larger if company operational do not run as expected thus loans interest might burden the company and cause bankruptcy, due to the growing loans that do not bring profit to the business. Payment using loans possesses advantage through leverage. Leverage application in company would give interest load risk. It means company receives taxes amount reduction, however takes interest addition. Hence, company needs to determine optimal capital structure according to its necessities. Purpose of handling capital structure is to minimize capital cost, for maximizing firm's value (Harjito and Matono, 2003).

CONCLUSION

Based on panel data test, results suggested that capital structure affected the firm's value significantly. Whereas, investment decision, liquidity, profitability and company growth did not influence the firm's value. This phenomenon indicated

that large loans use in a company would escalate the firm's value. Rising loans rendered positive signal towards investors to govern the firm's value. Because by increasing loans, company could apply leverage to gain taxes saving benefit. Leverage application led to interest load risk which decreased taxable profit. It implied government could pay part of the company's capital cost that was sourced from loans, besides it could cut off the tax amount to be paid to government. As consequence, profit remaining that is under investors' authorization would encounter an increase.

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