THE UTMOST SHAREHOLDER AND FINANCIAL LEVERAGE: PROOF FROM TELECOMMUNICATION FIRMS IN SOUTHEAST ASIAN COUNTRIES

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Abstract. Financial leverage is the source of external funds with the fixed expense, i.e., interest, to elevate the investor's wealth. On one side, this leverage can benefit the shareholders: tax savings; on the other, it can be harmful if it cannot be organized well: bankruptcy. Consequently, this leverage is essentially managed. This manuscript examines the free cash flow of agency theory by relating the utmost shareholder to financial leverage with profitability as the control variable. As the population, we utilize the telecommunication companies in the capital market of Southeast Asia from 2015 to 2020 and a simple random sampling technique to take them as the sample. To test the hypothesis, we use the t-statistic to examine the coefficients in the regression model with pooling data. The study summarizes a positive impact of the utmost shareholder on financial leverage; however, profitability negatively affects this leverage. This circumstance means that the debt is still adequate to be utilized by the largest shareholder in disciplining managers for unproductive spending on projects.
Keywords: *financial leverage, technology, telecommunication, the utmost shareholder, profitability*

Introduction

Technological innovation is the power to grow the economy and effortlessly solve human problems (Li and Piachaud, 2019); for example, internet connection (Zahra et al., 2008). This technology helps humans communicate through their smartphones (Jean, 2017). Moreover, to create smartphones valuable for their users, the firms' internet services as supporting operators should be available in the telecommunication industry (Chouhan et al., 2021). For the companies in this telecommunication industry, debt is one of the financial policies (Khan et al., 2022; Rahmatillah and Prasetyo, 2016; Hendrawan and Adinugraha, 2015; Hadianto, 2008; Carpeto and Shah, 2005). Debt is the source of funds with the fixed expense to create wealth for the shareholders (Gitman and Zutter, 2014). Debt can be a burden if the managers cannot organize it well; the worst consequence is bankruptcy (Abor, 2008). On another side, it can be a tax shield as a benefit (Fosberg, 2004). Also, the largest shareholder as the firm controller determines the leverage policy. According to Al-Kuwari (2012), this shareholder has the power of voting power based on the invested share in the firms. Claessens et al. (2002) enlighten this shareholder has the incentive to force preasure managers or not hire them anymore through a proxy fight. Furthermore, Easterbrook (1984) explains that this shareholder is a risk seeker, devoting risky projects to wealth maximation through debt.

The research about financial leverage with the largest shareholder as the primary determinant gets the devotion from academics from many states, for example, China (Liu et al., 2011; Yang and Chen, 2006), Indonesia (Hadianto, 2008), Spain (Hernández-Cánovas et al., 2014), the United Kingdom (Amin and Liu, 2020), Italia (Mbanyele, 2020), Egypt (Fayez et al., 2019), and the Netherland (Huang et al., 2018).

Associated with the largest shareholder as the financial leverage determinant, Amin and Liu (2020), Liu et al. (2011), Mbanyele (2020) as well as Quang and Xin (2014) reveal the quadratic function. Also, this function is confirmed by Huang et al. (2018) when the government performs as the largest shareholder. However, Fayez et al. (2019), Hernández-Cánovas et al. (2014), Hadianto (2008), as well as Yang and Chen (2006) show the linear relationship with a negative sign. Meanwhile, Huang et al. (2018) demonstrate the linear with a positive effect when the government is not the largest shareholder. Similarly, Yuxuan and Wenlin (2014) find a positive association between ownership concentration and debt policy. Stimulated by the different facts presented above, this study examines the relationship between the utmost shareholder and financial leverage in the telecommunication sector-related publicly listed companies in Southeast Asian countries. Moreover, this study utilizes the control variables, i.e., profitability, by denoting Muhammad et al. (2020), Huang et al. (2018), Hernández-Cánovas et al. (2014), Liu et al. (2011), Yang and Chen (2006), Deesomsak et al. (2004), Hadianto (2008), and the dummy variable of the countries by referring to Muhammad et al. (2020).

Literature review and hypothesis development

The agency free cash flow theory declares that shareholders tend to discipline managers by asking them to borrow money. By doing that, managers will be bonded to pay the interests and principles to creditors regularly and not spend free cash flow on needless spending. Under this pressure, managers will work hard to show their performance to serve shareholders (Jensen, 1986). This perspective is confirmed by Yuxuan and Wenlin (2014), demonstrating that the share ownership of three big holders is positively associated with financial leverage in 119 public-listed companies in the pharmaceutical industry in China. When the government is not the largest shareholder, Huang et al. (2018) demonstrate this position's positive effect on leverage in China. Using this information, we propose the first hypothesis as follows.

H_1: The utmost shareholder positively affects the financial leverage.

The pecking order theory recommends firms use retained earnings first to finance the investment. If these earnings are insufficient, they issue bonds or borrow money from the bank, and the issuance of shares at the final action (Gitman and Zutter, 2014). Indeed, when they have outstanding retained earnings caused by the increased profits, the debt portion in the financial structure will decline. Based on this circumstance, the more significant profit, the lower the debt level, as Muhammad et al. (2020), Huang et al. (2018), Yang and Chen (2006), Liu et al. (2011), Hadianto (2008), Deesomsak et al. (2004), illustrate. Using this explanation, we propose the second hypothesis as follows.

H_2: The profitability negatively affects the financial leverage.

Materials and Methods

In this research, we employ two variable types. The first is the dependent: financial leverage. The second is the independent: the enormous shareholder as the main, and profitability and the country dummy as the control. Moreover, the indicator to measure each variable can be looked at in *Table 1*.

***Table 1**. Research variable definition.*

Variable	Indicator	Scale
1. Financial leverage	Debt to asset ratio at the end of the year (DAR).	Ratio
2. The utmost shareholder	The number of shares held by the largest shareholder divided by the total number of shares at the end of the year (UTMOST_SH).	Ratio
3. Profitability	The return on assets at the end of the year (ROA).	Ratio
4. Countries	The dummy variable is the countries where Indonesia acts as the base category (IND = 0); the rest become the reference category: Singapore (DSIN), Malaysia (DMAL), Philippines (DPHIL), Thailand (DTHAI), Vietnam (DVIET) = 1.	Nominal

The population in this study is the telecommunication firms in Southeast Asia from 2015 to 2020. According to the Refinitiv Eikon database, their total is 20, as noted in *Table 2*. However, one company, i.e., CNVRG, does not wholly own the financial data; because of it, we remove it from the population. Hence, the appropriate population size is 19.

***Table 2**. Te name of the telecommunication companies in the capital market in Southeast Asia.*

The name of the country	Company code	The name of the listed company	The total relevant companies
Indonesia	BTEL	Bakrie Telecom Tbk	6
	EXCL	XL Axiata Tbk	
	FREN	Smartfren Telecom Tbk	
	ISAT	Indosat Tbk	
	JAST	Jasnita Telekomindo Tbk	
	TLKM	Telekomunikasi Indonesia Tbk	
Singapore	STEL	Singapore Telecommunication	3
	STAR	StarHub	
	NETL	NetLink NBN Trust	
Malaysia	TLMM	Telecom Malaysia Bhd	3
	AXIA	Axiata Group Bhd	
	SCMM	Scicom MSC Bhd	
Philippines	TEL	PLDT Inc	2
	GLO	Globe Telecom Inc	
	CNVRG*	Converge Information & Communications Technology Solutions Inc	
Thailand	DTAC	Total Access Communication PCL	2
	TRUE	True Corporation PCL	
Vietnam	VGI	Viettel Global Investment Corp.	3
	VMS	Vietnam Maritime Development JSC	
	FOX	FPT Telecom JSC	

*Note: *CNVRG has incomplete data related to the variable. Thus, this firm is eliminated from the population, and 19 relevant firms are available in the population.*

After recognizing the total relevant population (TP), the calculation of the sample size (SS) by the Slovin formula with a 10% residual margin (rm) is based on the first equation, Eq. (1), as cited by Maharsi et al. (2021).

$$SS = \frac{TP}{1+N(rm)(rm)} \qquad \text{Eq. (1)}$$

Once utilizing this formula, we obtain the sample size (SS);

$$SS = \frac{19}{1+19(10\%)(10\%)} = \frac{19}{1.19} = 15.97$$

SS ≈ 16 companies.

Then, they are selected by simple random sampling. Afterward, the 16 codes reflecting the name of the companies as the sample are as follows : (1) EXCL, (2) FREN, (3) ISAT, (4) JAST, (5) TLKM, (6) STEL, (7) STAR, (8) NETL, (9) TLMM, (10) AXIA, (11) SCMM, (12) TELL, (13) GLO, (14) DTEC, (15) TRUE, (16) VGI. We employ the pooling regression model as the method to analyze the data. According to Gujarati and Porter (2009), this model adopts ordinary least squares (OLS) to estimate the coefficients. In this study context, the model intended is in the second equation, Eq. (2):

$$DAR = \beta_0 + \beta 1UTMOST\_SHit + \beta_2 ROA_{it} + \beta_3 DSIN_{it} + \beta_4 DMAL_{it} + \beta_5 DPHIL_{it} + \beta_6 DTHAI_{it} + \beta_7 VIET_{it} + \varepsilon_{it} \qquad \text{Eq. (2)}$$

Because of the OLS, to reach the best, linear, unbiased estimators (β), the regression model must meet the examination of classical assumptions: (1) normality of residuals, the absence of (2) solid correlation between independent variables, (3) serial residuals, and (4) heteroskedasticity (Gujarati and Porter, 2009; Ghozali, 2016).

Results and Discussion

This research uses sixteen telecommunication companies and six years to build the regression model. Therefore, ninety-six observations (N) exist. Based on the descriptive statistical measurement from IBM SPSS 19, the authors present the maximum, minimum, average, and standard deviation for each variable (*Table 3*): (a) In the leverage measurement, DAR is calculated in decimal. Therefore, the minimum, maximum, and average are 0.0765, 0.9113, and 0.638525. Meanwhile, the standard deviation is 0.1956755; (b) In the largest shareholder measurement, UTMOST_SH is calculated in percentage. Hence, the minimum, maximum, and average are 10.9740%, 97.7300%, and 46.725844%. Meanwhile, the standard deviation is 18.5609027; (c) ROA is calculated decimally for profitability measurement. Thus, the minimum, maximum, and average are -0.1482, 0.3940, and 0.037134. Meanwhile, the standard deviation is 0.0915788.

Table 3*.The result of descriptive statistics of research variables.*

Variable	N	Minimum	Maximum	Average	Standard deviation
DAR	96	0.0765	0.9113	0.638525	0.1956755
LRGST_SH	96	10.9740	97.7300	46.725844	18.5609027
ROA	96	-0.1482	0.3940	0.037134	0.0915788

Figure 1 displays the Jarque-Bera statistical test with the probability of 0.582634. Because this value exceeds α of 5%, the residuals follow the normal distribution. *Table 4* exhibits the result of the multicollinearity recognition: the VIF for DAR, LRGST_SH, ROA, DSIN, DMAL, DPHIL, DTHAI, and DVIET is lower than 10: 2.689, 1.344, 1.615, 2.750, 1.485, 1.298, and 1.501. Therefore, the result indicates no strong correlations between the independent variables. For the serial association of residuals, asymptotic significance (2-tailed) is lower than 5%: 0.000. Therefore, the residuals are not random, showing the autocorrelation problem.

***Table 4**. The recognition result of the multicollinearity and autocorrelation.*

The name of the detection	Statistical results	Meaning
Multicollinearity	The VIF for DAR, LRGST_SH, ROA, DSIN, DMAL, DPHIL, DTHAI, and DVIET is 2.689, 1.344, 1.615, 2.750, 1.485, 1.298, and 1.501.	Multicollinearity is not available in the regression model because no VIF is higher than 10.
Autocorrelation	Z-statistic=-4.505 and asymptotic significance (2-tailed)=0.000	Autocorrelation occurs because the asymptotic significance is lower than α of 5%.

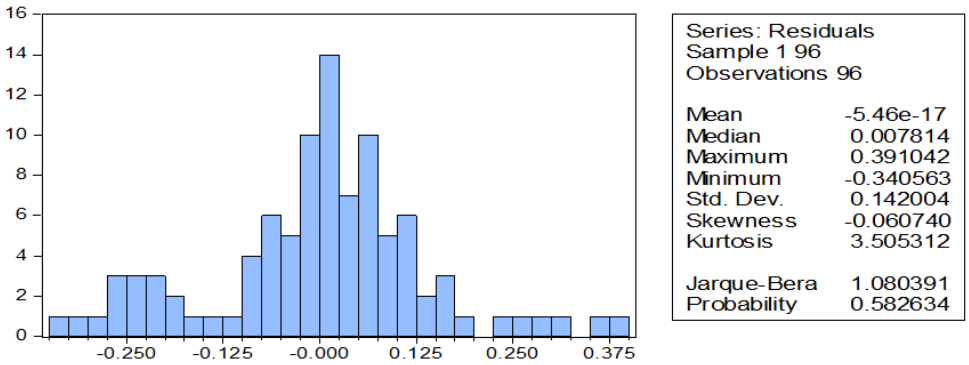

***Figure 1.** The Jarque-Bera normality test result.*

Table 5(i) depicts the White heteroskedasticity testing result performed by the E-Views 6, with the Chi-square probability of Obs*R-squared(7) of 0.0000. Since this value is lower than the 5% significance level, the heteroskedasticity problem still occurs in the regression model. Additionally, *Table 5(ii)* describes that the independent variables affecting squared residuals or becoming the heteroskedasticity source are squared UTMOST_SH, D_SIN, and D_PHIL (see the probability of t-statistic of 0.0052, 0.0000, and 0.0156, less than the 5% level).

***Table 5(i)**. The white heteroskedasticity testing result.*

Category	Value
F-statistic	16.96283
Prob. F(7,88)	0.0000
Obs*R-squared	55.13704

Prob. Chi-Square(7) for Obs*R-squared	0.0000
Scaled explained SS	58.03609
Prob. Chi-Square(7) for Scaled explained SS	0.0000

Dependent Variable: RESID^2
Method: Least Squares
Sample: 1 96
Included observations: 96

Table 5(ii). *The white heteroskedasticity testing result (based on the varible).*

Variable	Coefficient	Std. Error	t-Statistic	Probability
C	0.029236	0.006886	4.245989	0.0001
LRGST_SH^2	-5.61E-06	1.96E-06	-2.864114	0.0052
ROA^2	0.010082	0.093235	0.108140	0.9141
D_SIN^2	0.049341	0.006579	7.499264	0.0000
D_MAL^2	-0.012875	0.007830	-1.644410	0.1037
D_PHIL^2	-0.018965	0.007688	-2.466774	0.0156
D_THAI^2	-0.011222	0.007458	-1.504782	0.1360
D_VIET^2	0.013351	0.012941	1.031639	0.3051

Like Gujarati and Porter's (2009) recommendation, we utilize the Newey-West estimators providing consistent adjusted standard errors and covariance to handle the serial correlation among residuals and heteroskedasticity. Furthermore, the R-square, the adjusted R-square, regression estimators, and their t-statistical probability related to this information are obtainable in *Tables 6(i)* and *Table 6(ii)*.

Table 6(i). *The regression model estimation result.*

The statistical measurement	Value
R-squared	0.511756
Adjusted R-squared	0.472918
Standard error of estimate	0.142061
Sum squared resid	1.775963
Log-likelihood	55.30216
F-statistic	13.17680
Prob(F-statistic)	0.000000
Mean of the dependent variable	0.638525
The standard deviation of the dependent variable	0.195676
Akaike info criterion	-0.985462
Schwarz criterion	-0.771766
Hannan-Quinn criterion	-0.899082
Durbin-Watson stat	0.912338

Dependent Variable: DAR
Method: Least Squares
Sample: 1 96
Included observations: 96
Newey-West Heteroskedasticity and Autocorrelation Consistent Standard Errors & Covariance (lag truncation=3)

Table 6(ii). *The regression model estimation result (based on the variable).*

Variable	Coefficient	Std. Error	t-Statistic	Probability
C	0.329401	0.109879	2.997847	0.0035
LRGST_SH	0.005438	0.001928	2.820742	0.0059

ROA	-1.036069	0.226933	-4.565517	0.0000
D_SIN	0.118329	0.092778	1.275398	0.2055
D_MAL	0.148994	0.061467	2.423971	0.0174
D_PHIL	0.261260	0.039852	6.555788	0.0000
D_THAI	0.205836	0.041475	4.962938	0.0000
D_VIET	-0.240390	0.063105	-3.809359	0.0003

Table 6(i) demonstrates the adjusted R-square of 0.472918. It means the contribution of the largest shareholder, profitability, and the five dummy variables symbolizing the country can statistically explain the variation of financial leverage (FL) as high as 47.2918%. Furthermore, in *Table 6(ii)*, the probability of the t-statistic for UTMOST_SH is lower than 5%: 0.0059, and the regression coefficient shows a positive mark. Hence, the first hypothesis is acceptable: majority shareholder positively influences FL. Meanwhile, the probability for ROA is 0.0000, and the regression coefficient displays a negative mark; consequently, the second hypothesis is acceptable: profitability negatively influences FL. The regression coefficients of the dummy country mean that the FL of the firms in Singapore (DSIN) is similar to that in Indonesia because the probability is 0.2055, exceeding α of 5%. Additionally, the companies' FL in Malaysia (DMAL), the Philippines (DPHIL), and Thailand (DTHAI) are above that in Indonesia because of the positive regression coefficients and their probability below 5%: 0.0174, 0.000, and 0.0000. However, the FL of enterprises in Vietnam (DVIET) is lower than that in Indonesia because the probability is 0.0003, more diminutive than α of 5% and the regression coefficient shows a negative sign.

This research shows two findings. The first is a positive tendency of the utmost shareholders to borrow money from banks or issue bonds in the capital market. The second is how responsible the managers are for resulting in profits. With the first tendency, the largest shareholder seems to discipline managers with free cash flow from unnecessary spending. Because of debt, managers need to use this cash flow optimally by selecting the projects based on capital budgeting techniques. Also, they need to monitor projects until success. Based on this evidence, this study supports the agency theory of free cash flow and the previous investigation of Yuxuan and Wenlin (2014) and Huang et al. (2018). The second tendency becomes the outcome of the first propensity. Managers are afraid of the risk of bankruptcy (Easterbrook, 1984). Therefore, they carefully work because they must invest the money from debt in risky projects. The challenging projects will produce profits if their implementation is successful. Then, these profits will reduce the debt portion of the company through the increased retained earnings. Therefore, the result of this study confirms the pecking order theory and numerous prior research like conducted by Muhammad et al. (2020), Huang et al. (2018), Hadianto (2015), Liu et al. (2011), Yang and Chen (2006), as well as Deesomsak et al. (2004).

Conclusion

This study wants to examine the free cash flow agency theory by associating the largest shareholder with the financial leverage in telecommunication firms in Southeast Asian countries. Also, the pecking order perspective is utilized to investigate the relationship between profitability as the control variable and this leverage. By employing the related consistent companies with the complete data from 2015 to 2020,

this study concludes that the debt is still adequate to be used by the largest shareholder in disciplining managers for unproductive spending on projects. Despite confirming the theory of agency and pecking order, this study still has some boundaries, especially the total variables, i.e., three. By adding the independent variables to the research model of financial leverage, the succeeding scholar is expected to obtain a better result. The suggested determinants are asset structure, firm size, growth opportunity, liquidity, non-debt tax shield, earnings volatility, effective tax level as the control variable, and board governance as the primary variable.

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Conflict of interest

The authors confirm no conflict of interest involving any parties in this research.

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